NIH Scientists to Speak And Moderate Sessions At Annual PHS Meeting

Many NIH scientists will appear as speakers and moderators at the Ninth Annual Meeting of the U.S. Public Health Service Professional Associations, to be held April 8-11 at the Washington Hilton.

Dr. Charles Edwards, HEW Assistant Secretary for Health, will address the opening luncheon on April 9, and Mark Russell, political satirist, will be the banquet speaker on the following evening.

Dr. Theodore Cooper, Director, National Heart and Lung Institute, will deliver the annual Luther Terry lecture on High Blood Pressure: Obstacles and Opportunities for Control, at an afternoon session on Hypertension, on April 10. The moderator will be Dr. Jerome C. Green, NHLI.

In a morning session on that date, Dr. R. W. Lamont-Havera, deputy director, National Institute of Arthritis, Metabolism, and Digestive Diseases, will be the moderator for discussions on the Ethics of Studies in Human Subjects.

Other NIH participants include Dr. Robert N. Hoover, NCI; Drs. Peter H. Wiernik and Michael D. Walker, Baltimore Cancer Research Center; Dr. Harvey J. Alter, chief, Immunology Section, CC Blood Bank, and Vernice Ferguson, chief, Nursing Service, CC.

Nearly 300 scientific papers will be presented on all the major disciplines, including medicine, surgery, dentistry, pharmacy, nursing, psychiatry, pediatrics, public health, ophthalmology, physical therapy, dermatology, and environmental health.

There will also be an art and photography exhibit by members. For further information, call William Lucea, USPHS Commissioned Officers Association, (202) 298-8680.

Spinal Cord Injury Patients May Regain Vital Functions With Implanted Devices

By Carolyn Holstein

Spinal cord-injured patients participating in research studies have shown that they can regain the functions of breathing, urinating and grasping objects by using implanted devices which electrically stimulate appropriate nerves. Scientists predict that these techniques may soon be ready for widespread clinical use.

Electrical stimulation through electrodes implanted in the brain's cerebellum is also under study to prevent epileptic attacks which are not adequately controlled by anti-convulsant drugs.

But scientists are less optimistic about successfully using electrical stimulation by implantable aids for the deaf and the blind.

Dr. John B. Moloney Receives G.W.U. Achievement Award

Dr. John B. Moloney was one of four George Washington University alumni who received achievement awards at recent ceremonies held at the DAR Constitution Hall.

Device Being Perfected

A recent survey conducted in Washington, D.C. has revealed that 10 percent of all names listed in the Yellow Pages list of M.D.'s are not licensed medical doctors.

Medical World News reports that the telephone company has a new procedure to screen all applicants for M.D. Yellow Pages listings.

These facts were discussed at a 2-day Neural Prosthesis Workshop held here recently by the Laboratory of Neuroal Control, National Institute of Neurological Diseases and Stroke. The laboratory is headed by Dr. Karl Frank.

The device to restore breathing is already in clinical use. Its developer, Dr. William Glenn, Yale University Medical School, said it has freed 25 patients from using a mechanical respirator—some for more than 4 years—by electrically stimulating the phrenic nerves.

These two nerves contract the diaphragm to begin each breath. The electrodes, which are implanted around the phrenic nerves, were developed by Avery Laboratories of Farmingdale, N.Y.

Device Being Perfected

A device to produce bladder evacuation in spinal cord patients is not yet ready for widespread clinical use. When it is perfected it may eliminate the sometimes fatal problem of infection which often occurs in patients using a catheter.
Dr. L. F. Remmert Dies; Prog. Dir., NIAMDD

Dr. LeMar F. Remmert, 58, Diabetes Program director for the National Institute of Arthritis, Metabolism, and Digestive Diseases, died March 13 at his home. Dr. Remmert came to NIH in 1966 as a scientist administrator in the National Cancer Institute where he served as program director of the Tumor Host Relation Section.

Administers Grants

Two years later, he joined NIAMDD's Extramural Programs to administer grants in diabetes and other related areas as lipid and carbohydrate metabolism.

A native of Neillville, Wis., Dr. Remmert attended schools in Iowa and North Carolina, and received his M.S. degree from Oregon State University.

He earned his Ph.D. in physiological chemistry in 1948 from the University of Wisconsin, Madison.

Dr. Remmert taught and performed research in agricultural chemistry at Oregon State and was the author of more than 30 papers in his field.

During World War II he was a member of the Food and Nutrition Corps of the U.S. Army and served in the Pacific Theater as a major.

Dr. Remmert was a member of several organizations including the American Society of Biological Chemists, American Chemical Society, and the American Association for the Advancement of Science.

He is survived by his wife, Arline, two sons, David and William, of the home, 12028 Coldstream Drive, Potomac, Md., and a daughter, Mrs. Glenn Urquhart of McLean, Va.

Memorial services were held at St. Mark United Presbyterian Church, 10701 Old Georgetown Road, on March 18.

Emma Plank to Discuss Emotional Care Priority

Emma Plank, author of *Working with Children in Hospitals*, will discuss Emotional Care as a Priority: Approach to Implementation, on Thursday, April 11, at 9 a.m. in the Masur Auditorium.

CC Sponsors Lecture

The lecture is being sponsored by the Clinical Center Nursing and Social Work Departments.

Ms. Plank is professor emeritus at Case Western Reserve University and consultant to the Child Life and Education Programs at the Cleveland Metropolitan General Hospital.

Julia Ford, Vanderbilt U. freshman, is presiding officer of the National Association of Medical Explorers.

Concert Features a Contralto In Music by Britten and Berlioz

Maureen Forrester, contralto, will perform in the final concert of the 1973-74 Chamber Music Series sponsored by the Foundation for Advanced Education in the Sciences on Sunday, March 31, at 4 p.m. in the Masur Auditorium.

The program will include music by Hady, Schumann, Britten, and Berlioz. Admission is by ticket only.

Medical Explorers Group To Visit NIH Next Week

Next Wednesday afternoon (April 3), 225 members of the National Association of Medical Explorers will visit NIH.

Following a general session held in the Masur Auditorium, the Explorers will divide into eight interest-group workshops on such areas as population research, hypertension, and veterinary research.

The Medical Explorers program is sponsored by the Boy Scouts of America. More than one-third of the participants are girls.

Most of the Explorers are students in junior colleges and universities, and all plan to pursue health-related careers.

Drivers Should Register New D.C. License Tags

By April 1 some 3,000 employees residing in the District of Columbia will be getting new license plates with distinctive colors commemorating the U.S. bicentennial.

All NIH drivers who live in D.C. should register these licenses with the Parking Office as soon as the tags are on their cars so that the office can aid owners by notifying them when vehicles' lights are left on, gas is leaking, accidents occur, etc.

Employees can register their cars in Bldg. 31, Room B1C15.

Soon after April 1, forms will be obtainable from timekeepers for registering tags. These forms, which may be mailed in, will enable those who have not done so to report their new numbers.

After a reasonable time, NIH police officers will begin checking permits with tag numbers.

For information call Ext. 65050.
Dr. Anthony M. Bruno is assigned to special Pan American posts

Dr. Anthony M. Bruno, assistant director of the National Cancer Institute, has been assigned as associate deputy director and special assistant to the Director of the Pan American Health Organization, WHO.

Dr. Bruno joined NCI in June 1971 and the following year was appointed coordinator for the U.S.-U.S.S.R. Bilateral Health Agreement in Cancer under which the two countries formed collaborative research programs.

Expands International Studies

NCI has expanded its international activities—under mandate of the National Cancer Act—and there is increasing concern for the apparent rise in cancer and other chronic diseases in Latin America.

The Pan American Health Organization serves as the focal point for the support of health-related programs which affect the quality of life and environment, Dr. Bruno noted.

Dr. Joseph V. Simone, St. Jude Children's Research Hospital, Memphis, told those attending the symposium that 51 percent of children with acute lymphocytic leukemia treated with radiation and a combination of anti-cancer drugs have been completely free of the disease for at least 5 years.

No Treatment for 2-3 Years

The children have also gone without any form of treatment for the last 2 to 3 of those years.

Dr. Simone noted, most children with this disease died within a few months of diagnosis. Early drug studies at St. Jude produced a disease-free survival rate that now stands at 17 percent survival after 8 years.

The critical improvement in therapy, however, came through irradiation of the central nervous system, where leukemic cells can "hide" from anti-cancer drugs.

In new studies recently started at that hospital, Dr. Simone and his colleagues are varying the combination of drugs used to keep acute leukemia patients free of disease after the initial drug and radiation treatments.

Therapy Combinations Help

Combinations of surgery, radiation, and drugs have greatly improved the outlook for two other childhood cancers: Wilms' tumor and rhabdomyosarcoma.

Dr. Audrey E. Evans, director of oncology, Children's Hospital of Philadelphia and co-chairman of the symposium, said that drugs added to surgery and postoperative irradiation have increased 2-year survival rates from about 45 percent to about 60 percent in children with Wilms' tumor, a cancer of the kidney.

In children with rhabdomyosarcoma, a cancer of muscle tissue, the three modes of treatment have produced a 2-year survival rate of about 30 percent and a 5-year survival rate of 10 to 20 percent before the addition of drugs.

Dr. Thomas C. Pomeroy, collaborating with Dr. Johnson at NCI, reported that radiation and a combination of drugs have produced a projected overall 5-year survival rate of 35 percent in children and young adults with Ewing's sarcoma, a form of bone cancer.

The scientists estimate that the 5-year survival rate will be 52 percent among patients in whom the disease was detected in an early, localized stage. Former treatment by surgery or irradiation had produced 5-year survival rates of only 10 percent.

Dr. Vincent T. DeVita, Jr., chief, NCI Medicine Branch, told the symposium that a four-drug combination has produced at least a partial response in 17 of 25 patients with advanced breast cancer, including a complete disappearance of cancer in seven patients.

Most of the patients had suffered a relapse of the disease after initial treatment by surgery, and the majority had also been treated previously with radiation, hormones or removal of hormone-secreting glands.

Although the NCI study is still at an early stage, Dr. DeVita said it is already apparent that the median survival time for the 17 women responding to treatment will be at least 15 months.

The eight non-responders have had a median survival time of only 6 months.

The Symposium was sponsored by the Clinical Investigations Branch and the Cancer Clinical Investigation Review Committee. These NCI components oversee research in cancer treatment by networks of institutions in cooperative clinical groups.

Dr. Anthony M. Bruno is co-editor of a monograph on "International Aspects of Cancer Research."

Dr. Richard Naeye to Discuss Hypoventilation in SIDS Series

Dr. Richard Naeye will speak on Hypoventilation: A Possible Cause for the Sudden Infant Death Syndrome on Friday, April 5, at 3 p.m. in the Masur Auditorium.

Dr. Naeye is professor and chairman of the department of pathology at the Pennsylvania State University School of Medicine.

This is the second lecture in a SIDS series sponsored by the National Institute of Child Health and Human Development.

The best smell is bread, the best savour salt, the best love that of children—Prover.
SPINAL CORD
(Continued from Page 1)

Duke University scientists under Dr. Blaine Nashold, are activating bladder-emptying muscles by stimulating them with electrodes implanted in the spinal cord. Dr. Nashold reported on eight patients now using the device. But it will not be generally available until scientists can simultaneously relax another muscle which retains fluid in the bladder.

The Duke medical team and scientists under Dr. Emil Tanagho, U. of Calif. School of Medicine, San Francisco, are working on this.

A system to enable quadraplegic patients—both arms and legs paralyzed—to grasp and use objects such as a pencil or a glass, is also almost ready for clinical use. It was developed by a group headed by Dr. Thomas Mortimer at Case Western Reserve University.

Shoulder Muscles Often Useable

Most spinal cord injury patients still have usable shoulder muscles. A patient’s voluntary shoulder movements control signals which activate a stimulator placed near his body.

This stimulator then activates electrodes implanted in his forearm, producing movement of his finger muscles.

“But,” stated Dr. Terry Hambrecht, “until the system becomes totally implantable, its application will remain quite limited.” Dr. Hambrecht is director of the neural prosthetics project.

He also added that “Other sources of control and feedback signals which don’t require the patient’s full attention still need to be developed.”

Far more serious problems plague the development of successful implantable aids for the deaf and blind. Scientists can not yet selectively and independently stimulate enough groups of nerve cells to produce a potentially useful prosthesis.

Dr. Blair Simmons, an NINDS grantees at Stanford University, spoke of his work on an implantable hearing aid for the totally deaf. Electrodes are inserted directly into an animal’s auditory nerve which connects the inner ear’s cochlea with the brain.

He also described efforts by others to place electrodes into the cochlea, the actual organ of hearing—an approach which enables a patient to hear low frequency tones which aid in lip-reading.

Dots of Light Seen

William Dobelle, University of Utah, reported on his recent efforts enabling two blind volunteers to see dots of light in an identifiable pattern by stimulating points on the surface of the brain’s visual cortex.

However, to limit interactions between dots, Dr. Hambrecht considered that it may be necessary to place electrodes within, rather than on, the cortex’s surface.

“An important question is how much information can be transferred into the visual system and how fast,” he said, adding “the evidence so far indicates that surface stimulation will not be practical for a useful prosthesis.”

A device proposed for the control of epileptic seizures called the “cerebellar implant” uses electrodes surgically implanted on the surface of the brain’s cerebellum. It was first implanted in patients by Dr. Irving Cooper, a neurosurgeon at St. Barnabas Hospital in New York City.

Dr. Sid Gilman, a neurologist at Columbia University College of Physicians and Surgeons who has worked with Dr. Cooper, reported that patients appeared to have significantly fewer seizures with the device.

“Because the patients are still receiving some anticonvulsants, we need studies to determine the effectiveness of the implant alone,” he said.

Dr. Frank stated that NINDS plans to award a contract for animal studies of the implant to “provide information on the types of seizures which can be affected, the neural mechanisms involved, and on the optimum methods of stimulation.”