Dr. Goldstein To Present NIH Lecture on Dec. 2

Dr. Joseph L. Goldstein will present the first of the 1981-82 NIH Lecture series on Cell Surface Receptors for Plasma Lipoproteins: Implications for Biology and Medicine, on Wednesday, Dec. 2, at 8:15 p.m., in Masur Auditorium.

Dr. Goldstein is professor and chairman, department of molecular genetics and Paul J. Thomas Professor of Medicine and Genetics at the University of Texas Southwestern Medical School, Dallas, Tex. Previously he held the positions of clinical associate, Laboratory of Biochemical Genetics, National Heart, Lung, and Blood Institute, from 1968-1970, and special NIH fellow, division of medical genetics, University of Washington School of Medicine, Seattle, from 1970-1972.

He is coreipient of the Gairdner Foundation International Award, the Lounsbery Award of the U.S. National Academy of Sciences, and the Passano Award, among others.

The National Institutes of Health Lectures were established in 1953 to recognize outstanding scientific accomplishment and to contribute to the vital interchange of scientific information. The lectureships are awarded by the NIH Director on the advice of the BI/D scientific directors.

NIH To Participate in Sessions, Exhibit At Third White House Conference on Aging

In late November, 5,000 people will convene in Washington for the White House Conference on Aging (WHCoA). Held every 10 years since 1961, this conference has played a major role in the history of the National Institute on Aging.

NIA was created out of recommendations made at the 1971 White House Conference on Aging. Now, a decade later, the NIA is a lead agency in sponsoring this conference, which is designed to yield the basic information needed to shape a comprehensive national policy on aging. The meetings will be held from Nov. 29 through Dec. 3 at the Sheraton Washington Hotel. The conference itself is closed to all but official delegates, credentialed observers and exhibitors. NIH will be represented at a Health-Research Fair, where 15 NIH components will have exhibits based on the theme of Your Health From Head to Toe.

The NIA will provide experts to assist at the deliberative sessions and will also sponsor a number of booths and projects. For example, the Institute is cooperating with the Smithsonian Institution's Folklife Program to present an oral history project entitled Tools for the Harvest. White House Conference on Aging delegates and others will be interviewed to discuss how people learn to cope with the problems and challenges of life.

Betty Brake was recently appointed as the new executive director of the WHCoA. She was formerly deputy associate director of ACTION for Older Americans Volunteer Program. The WHCoA was preceded by 12,000 community forums held in towns and cities across the country, by state conferences, and by 42 miniconferences on specific subjects such as: the older woman, mental health, senile dementia, long-term care, and the media.

Representatives of all the states as well as the District of Columbia, the Commonwealth of Puerto Rico, Guam, American Samoa, the Virgin Islands, the Trust Territory of the Pacific Islands, and the Northern Mariana Islands will be present.

In addition, 20 leaders from gerontology centers across the world will meet before and after the WHCoA under the auspices of the NIA.

For more information about the WHCoA, call (202) 755-8001.

Dr. A. Patz, Longtime NEI Grantee, Given Jules Stein Award for Work in Infant Blindness

Dr. Arnall Patz, a longtime National Eye Institute grantee, has been named co-winner of the $50,000 Jules Stein Award for pioneering studies which led to a dramatic decrease in blindness among premature infants.

Research to Prevent Blindness, Inc. (RPB), announced the award at a recent American Academy of Ophthalmology meeting in Atlanta to Dr. Patz, who is chairman of the department of ophthalmology at Johns Hopkins University. RPB is a leading source of private support for vision research.

In 1951, Dr. Patz conducted the first randomized, controlled clinical trial showing a connection between high levels of oxygen administered to many premature infants and subsequent development of a blinding eye disorder that was common in such babies.

The disorder is called retrolental fibroplasia (RLF). He found that sustained high levels of oxygen, thought necessary to keep such small babies alive, might actually be the cause of RLF in many cases.

Subsequently, a Wayne State University researcher, Dr. V. Everett Kinsey, organized a cooperative study to test Dr. Patz's findings and also showed that premature babies could survive if given smaller amounts of oxygen. Due to these studies, thousands of babies were spared a lifetime of blindness and Drs. Patz and Kinsey were given the Albert Lasker Award in 1956, the most prestigious prize in American medicine.
NIH Bikers Will Discuss Framing, Cold Weather Garb

The NIH Bicycle Commuter Club will meet on Wednesday, Dec. 9, at noon, in Bldg. 29, Rm. 115. Club member Harley Sheffield, who constructs bicycle frames as a hobby, will bring in a partially assembled frame to be used as a demonstration and discussion on frame design, construction and alignment. Questions as to what distinguishes a quality bicycle frame and proper bicycle alignment will be answered.

In addition, Joseph Fenstermacher, a year-round bicycle commuter, will talk about and display the proper clothing and equipment for cold weather cycling. For information call Louis Mocca, 496-1920.

CFC Campaign Lagging; Must Make Strong Finish

The fourth report on the current NIH Combined Federal Campaign has been completed and shows that as of Nov. 10, only 44 percent of the overall goal has been reached.

However, William Fitzsimmons, NIH coordinator, is optimistic and is looking for a strong finish from all B/I/D's.

Leading the pack, according to the report, is the National Institute of General Medical Sciences with 98 percent of their goal. The National Institute on Aging is running second with 91 percent. Other leaders in the CFC goal race (over 70 percent) are the National Library of Medicine, the Division of Research Grants, the Division of Computer Research and Technology, and the Division of Research Resources.

With a holiday season fast approaching, all coordinators and canvassers are urged to redouble their efforts to get their respective B/I/D's "over the top."
Manic-Depressive Patients Exhibit Disturbed 48-Hour Sleep-Wake Cycles

In manic-depressive illness, during the switch from depression to mania, most of these patients experience 48-hour sleep-wake cycles, according to Dr. Thomas Wehr, a psychiatrist with the Clinical Psychobiology Branch, National Institute of Mental Health.

The change in sleep pattern, in which the patient gets one night of sleep in 48 hours rather than the normal two, occurred in 58 percent of the 67 manic-depressive patients studied by Dr. Wehr, Dr. Anna Wirz-Justice, Carolyn Craig, and Dr. Frederick Goodwin, branch chief.

From 1 to 10 consecutive 48-hour sleep-wake cycles were observed in the patients, the onset of the cycles coinciding with or immediately preceding the switch from depression to mania.

The insomnia occurred on alternating nights, with patients showing no subjective need to sleep in the face of strong environmental suggestions to do so, according to Dr. Wehr.

Antimanic Drugs Helped

Of the 67 patients, 15 had rapidly cycling bouts of depression and mania, experiencing as many as four to five switches per year. Switch-related insomnia in four of the patients was either totally or partially alleviated with antimanic drugs such as lithium and neuroleptics.

On nights of partial insomnia during the switch, however, sleep was still reduced by 50 percent, from the usual average of 6.4 hours of sleep to 3.1 hours.

Dr. Wehr also reported that four of five rapidly cycling patients were switched from depression to mania through sleep deprivation. "One night's total sleep deprivation simulates a 48-hour sleep-wake cycle," he said, "and provides clues about the possible consequences of the 48-hour cycles that occur spontaneously when patients switch.

"The results of experimental sleep deprivation," he continued, "indicate that the 48-hour sleep-wake cycles probably help to trigger switches into mania that have not yet occurred and probably exacerbate switches that have just begun to occur."

Since normal sleep-wake cycles are driven and regulated by a clock-like pacemaker located in the brain's anterior hypothalamus, Dr. Wehr speculates that the abnormal 48-hour activity-rest cycles in manic-depressive illness may reflect disturbances in the pacemaker.

Studies of sleep-wake cycles in normal humans who have been deprived of all external cues may help understand the mechanism functioning in the case of manic-depressive illness, Dr. Wehr said.

Experimental subjects living for extended periods in windowless, soundproofed environments often eventually switch to 48-hour sleep-wake cycles, he added.

Under normal conditions, sleep-wake cycles and circadian rhythms, such as body temperatures, are closely synchronized with one another and with the day-night cycle. In isolation experiments, the sleep-wake cycle can slow down to nearly 48 hours compared to the faster 24 hour circadian rhythm.

Major Differences Remain

Although there may be a relationship between the "free-running" sleep-wake cycles in normal humans deprived of external cues and the 48-hour cycles in manic-depressive patients, there are also major differences.

For example, the sleep phase in normal people may last from 10 to 16 hours, whereas manic-depressives typically sleep from 6 to 8 hours, Dr. Wehr said.

"The researchers have found that two classes of antidepressants can precipitate switches from depression to mania, the tricyclics and monoamine oxidase inhibitors. The drugs can also slow the intrinsic rhythm of activity-rest cycles in animals isolated from external time cues.

"If slowing of the intrinsic rhythm of the sleep-wake cycle pacemaker is a possible cause of 48-hour sleep-wake cycles in patients who switch from depression to mania, then the drugs' effect in animals could be related to their mechanism of action in patients," the scientists concluded.

—Marilyn Sargent, NIH

Every little yielding to anxiety is a step away from the natural heart of man.—Japanese (Shinto) proverb
First MARC Undergraduate Conference Held

Dr. Kent Higgins, of the Section of Visual Processing, NEI, briefs a group of MARC students while on their tour of four NIH laboratories.

"This is really a dream come true," said Dr. Geraldine Woods, special consultant to the National Institute of General Medical Sciences, during the first MARC Undergraduate Scholars Conference held recently at the Chevy Chase 4-H Center.

MARC (Minority Access to Research Careers)—an NIGMS program in which other NIH Institutes cooperate—has, since 1977, offered awards to minority colleges for training expenses, tuition and stipends to support selected honor students in their third and fourth years of college.

Graduate Education Discussed

Ninety MARC-supported college seniors came to Washington, D.C. for the conference. They brought with them poster presentations about research they are doing, and spent much of the 3-day conference meeting with graduate school and NIH representatives to discuss the next crucial step in the students' careers: graduate education.

Advice was given on how to apply to graduate school, where to apply, what sort of financial aid is available, and what to expect from the graduate record exam.

As part of the conference, participants attended scientific seminars and toured NIH laboratories. They also heard welcoming remarks by Dr. Thomas E. Malone, Acting NIH Director, and Elward Bynum, director of the MARC program.

Dr. Woods Given Plaque

Dr. DeWitt Stetten, NIH senior scientific advisor, addressed the scholars at lunch the second day, and Rep. Louis Stokes (D-Ohio) spoke at a banquet that evening. During the banquet a plaque was presented to Dr. Woods by Dr. Ruth Kirchstein, NIGMS Director, in recognition of the many contributions Dr. Woods has made to the MARC program.

Dr. Stetten, NIGMS Director when the MARC program was conceived in the early seventies, spoke of promising fields for the seventies, spoke of promising fields for continuing interest in and support of the MARC program.

New Literature Searches Available From NLM

The following new Literature Searches are available from the National Library of Medicine's Reference Section:


These Literature Searches, part of a series of printed bibliographies on subjects of current interests, were produced through NLM's computer-based system, MEDLINE. They are available without charge.

A complete list of available titles appears in each issue of MEDLINE. They are available without charge.
Tissue Culture Test Yields Anticancer Drug Reaction

Laboratory-tested cancer cells taken from patients with brain tumors can predict their responses to anticancer drugs, according to a recent report by NIH researchers.

Dr. Paul L. Kornblith, Barry H. Smith and their associates from the National Institute of Neurological and Communicative Disorders and Stroke, and colleagues from Massachusetts General Hospital, have found a positive correlation between the effects of BCNU (a chemotherapeutic drug) on cultured cells taken from cancer patients and on the patients themselves.

Future Uses Considered

Test results indicate that physicians may use tissue cultures frequently in the future to determine the best chemotherapeutic drug for a brain tumor patient. Culture studies may also help scientists deepen their understanding of the growth of cancer cells, which may in turn open the door to new approaches in cancer therapy.

The researchers obtained glial (brain tumor) cells from 58 patients, treated the cells with different dilutions of BCNU, and then cultured them for 1 day. The next day, the investigators took a count of cells which BCNU had killed. The drug destroyed 72 percent of the cells (42 of 58 cultures were affected).

Next, the investigators compared the same data to the responses of 14 of the 58 patients given BCNU. The 14 patients were chosen because they all had been through the same protocol. The program included post-operative radiation therapy, two or more doses of BCNU or related compound, CCNU and two or more postoperative courses of BCNU in the in vitro (outside of the body) test.

Dr. Schwartz reported in the March 1979 issue of Cancer Research that DHEA successfully reduced the incidence of tumors in mice that were bred to develop cancer and inhibited weight gain in mice bred for obesity. He also noted that strains of rodents fed DHEA appeared significantly younger—their coats were less coarse and gray—than control animals. Finally, the life span of rodents fed DHEA was considerably extended.

These results were similar to those of earlier investigations of rats fed calorically restricted diets. It is well documented that restricted rats weigh less and live longer than rats fed unlimited amounts of food. They also develop fewer tumors later in life than controls.

In addition, Dr. Roy Walford at the University of Southern California has reported that mice on restricted diets maintain levels of immune function for a longer period than controls.

In July 1980, the NIA held a workshop on dietary restriction and DHEA in order for a small group of investigators to present the results of their work and discuss these two related fields. The investigators concluded that research is in a preliminary stage and future studies are needed before any conclusions can be made.

Because the DHEA-extended life span reported by Dr. Schwartz may have resulted from removing the effects of disease, not from actually slowing the aging process, investigations are continuing with "normal," long-lived mice. Even if "normal" rodents live longer with DHEA, however, the effects will still be similar to dietary restriction, and additional work must determine the differences between dietary restriction and DHEA in extending the lives of experimental animals.

Chamber Music Concert To Be Held on Dec. 6

The fourth concert of the 1981-82 Chamber Music Series, sponsored by the Foundation for Advanced Education in the Sciences, will be Sunday, Dec. 6, at 4 p.m., in Masur Auditorium.

It will feature Richard Stoltzman, clarinet; Walter Trampler, viola; and Lee Luvisi, piano. Admission by ticket only.

Dr. Dushanka V. Kleinman, evaluation officer, NIDR, was installed as president of the American Association of Women Dentists at their 60th annual session in Kansas City, Mo.
Rare Cancer Strain Found in Homosexual Men

The sudden occurrence of a rare form of cancer in homosexual men has brought together researchers studying the many variables in the development of cancer. Known as Kaposi's sarcoma, an uncommon yet prototypic form of cancer, the disease was the focus of a recent workshop sponsored by the National Cancer Institute together with the Centers for Disease Control.

Originally described in 1872 by a Hungarian dermatologist, Kaposi's sarcoma is a type of skin cancer primarily seen in older men of Jewish or Italian descent. In 1979 it was diagnosed in 11 homosexual men quite by accident, when researchers were treating them for another disease. Since then, 55 more cases have been found, and according to Dr. James Curran of the CDC, Kaposi's sarcoma "may be a new public health problem."

Investigators are puzzled by the prevalence of this disorder in homosexuals, leading them to question the role that lifestyle plays in cancer. Many of the Kaposi's patients have had multiple sex partners, and almost all at one time have used inhalants. Some also have a history of venereal disease.

Detailed clinical and personal profiles are assisting researchers in more closely identifying the relationship between these factors and the disease. The sudden onset and association with homosexuals suggest that prevention may be possible by eliminating the risk factors or variables connected with the cancer.

In the initial stages, small brownish-purple patches appear on the skin, often resembling mosquito bites and moles. These are followed by tumors that develop internally, attacking the gastrointestinal tract, liver and lungs. Each tumor appears to arise individually rather than as a metastases or spread. In older patients, the disease may linger for 15 to 20 years, whereas the younger untreated victims survive only a few years at most.

Kaposi's sarcoma has also been observed in black women living in equatorial Africa. The progress of the disease in these women and in homosexual men appears to be similar, with an average age of onset around 35.

No other apparent connection between the two groups has been recognized. Researchers believe that studying the epidemiology of Kaposi's sarcoma will lead them to more clues about the cause.

The pattern of the disease strongly suggests the involvement of an infectious agent, most probably a virus. Some scientists speculate that the suspected virus grows in the gastrointestinal tract and is spread by sexual contact.

In some studies, evidence of cytomegalovirus has been found in the blood of Kaposi patients, but conclusive proof is not available. No human cancer has ever been definitively proven to be virus caused.

Scientists don't know which came first when observing the marked immunosuppression almost universally evident in these patients. Multiple factors may be involved, such as drug abuse, poor nutrition and general physical neglect.

From animal studies, certain viral infections have been shown to depress the immune system and may well be the same mechanism at work in man. However, complicating this theory, is that the degree of immunosuppression in Kaposi's victims is extreme compared with that observed in "normal" CMV patients.

Kaposi's sarcoma appears to respond to certain types of chemotherapy, and in some cases, to radiation therapy. Still, the prognosis is not always favorable for younger victims. More research, according to the workshop participants, is needed to improve present methods of treatment and to explore new ones such as immunotherapy, which may prove to be more promising.

In addition, a large-scale surveillance study is about to begin to determine the extent of the disease and identify differences between homosexual men who develop Kaposi's sarcoma from those who don't.

Researchers are also exploring the relationship between developing the disease and suppression of the immune system, in addition to efforts for identifying the causative agent. Much of this work involves collecting blood and biopsy samples that are analyzed and compared with control groups.

Dr. Bruce Chabner, acting director, Division of Cancer Treatment, NCI, said, "Kaposi's sarcoma is an accident of nature that has potential for greatly furthering our understanding of the cancerous process if studied by a variety of approaches."

—Mary Donovan

New Research Computer Installed at Lister Hill Center

The medical computer science research group of the Lister Hill Center's Health Professions Applications Branch recently received its new research computer. The Digital Equipment Corporation (DEC) System-20 is equipped with a KL processor, 1.25 million words of memory, five 176 megabyte disk drives, two tape drives, a line printer, and network interfaces.

System-20's are used by most major research and development projects in knowledge-based systems, medical computer science, and artificial intelligence and computational linguistics in medicine.

With this system, the National Library of Medicine will have for the first time the hardware and software to support research in the development of medical knowledge bases and ability to collaborate with other leading scientific and high level academic institutions in this effort.
Dr. Gillespie Dies; Was Antihypertensive Drug Researcher

Dr. Louis Gillespie, Jr., known for his research on the treatment of hypertension, died recently of lung cancer. He was formerly with the National Heart, Lung, and Blood Institute, and had been in private practice in the Washington area since leaving NIH in 1964.

While at NIH, Dr. Gillespie conducted the clinical trials of a new antihypertensive drug that proved to be effective, and has since been marketed as Aldomet (methyl-DOPA). It became one of the most frequently used drugs in the world for the treatment of hypertension.

He began working at NHLBI's Laboratory of Experimental Therapeutics in 1957 as a clinical associate. He became a senior investigator in 1959, the position he held when he left the Institute.

In addition to his significant laboratory work, he also was active in fostering NIH and community programs to encourage student scientists to consider careers in medicine, and to bring science information from the laboratories to the public.

After his departure from NIH, Dr. Gillespie maintained his ties to the research community by participating in the hypertension clinic at the Washington Hospital Center. He continued his interest in drug evaluation, and the evaluation of diagnostic tests while at the clinic.

Born in New York City in 1929, he received both his B.S. degree in chemistry and his doctorate in medicine from Case Western Reserve University in Cleveland.

Alice M. Horowitz, public health educator with NIDR's National Caries Program, was installed as chairperson of the Dental Health Section of the American Public Health Association at their annual meeting in Los Angeles.

Computer Aids Medical Record Keeping at CC

Present at the introduction of the new computerized medical record system, and credited with helping establish it are: (l to r-rear) Dr. William Wright, Dr. Lipsett, Dr. Douglas E. Gaasterland, Mr. King, Dr. Arnold W. Pratt, J. Emmett Ward, and Dr. Michael Roberts; (l to r-front) Jennifer Bayless, Judy Mahaffey, Nancy Ginsberg, Dr. Elmer J. Ballintine, and Mrs. Burich.

The 700 Clinical Center patient care physicians are now being aided through the recent installation of an automated reporting system that will provide each physician with a weekly report regarding the status of each of their incomplete medical records.

Each Friday, through the internal mail, a computer printout, addressed to each individual physician, will be dispatched by the Clinical Center Medical Record Department. This new system has been designed to improve communication and accurate medical record keeping, not to increase physician paperwork.

"The MRD and the Division of Computer Research and Technology have collaborated to produce a system which will inform our physicians when medical records need their attention. This should improve medical care in the hospital," observed Dr. Mortimer B. Lipsett, CC Director, at this month's installation of the new equipment in the Medical Record Department located in Rm. 1N-108.

The idea for a computerized incomplete record reporting system has been an objective of the MRD for many years and has been actively pursued since the Joint Committee on Accreditation of Hospitals visit 2 years ago.

The reviewing system of patient's medical record remains virtually unchanged. When a medical record is received in the department, after inpatient discharge or outpatient visit, it is analyzed by a Medical Record Department institute reviewer.

Data taken during the analysis are transferred to an optical scanning sheet similar to those used as answer sheets on college board examinations. These data are then read into the computer and form the basis for the generation of each physician listing.

Getting paperwork done in a timely, accurate manner is not just a concern of the Clinical Center, "it is a problem encountered by all hospitals," observes Jerry King, assistant chief, MRD.

However, with the new system physicians will have an ongoing updated report of their responsibilities and CC administration will have more accurate complete information for evaluation purposes.

The distribution of lists "follows the hierarchy of the building," says Mr. King noting that Dr. Lipsett will receive a complete listing of all Institutes at the CC. In turn, each Institute clinical director will be sent a complete listing of all the physicians under his supervision. Attending physicians, in addition to getting a list of their own patients, will also receive a report on the clinical associates under their direction.

"Our objective is to produce a timely report, and to provide physicians with the information necessary for their completion of medical records," says Gloria Burich, MRD chief.

Currently, three Institutes are involved in the system: NEI, NIDR and the CC itself. It is expected that over the next 2 months NIMH will become a user with the remaining Institutes to be phased in shortly thereafter.

Stonehouse International Workshop Will Be Held in Dec.

A 2-day international workshop on Gangliosides as Receptors for Bacterial Toxins and Viruses and as Tumor Antigens, will be held at Stonehouse on Dec. 1-2. The meeting is being sponsored by Dr. Lars Svennerholm, a Fogarty scholar-in-residence. For further information and registration contact Nancy Shapiro, FIC conference coordinator, at 496-2517.
Dr. Greenwald Is New NCI Editor, Division Head

Dr. Peter Greenwald joined the National Cancer Institute this month as director of the Division of Resources, Centers, and Community Activities. He has also been named editor of the Journal of the National Cancer Institute.

A focal point for a coordinated national effort to control cancer, DRCG includes the Prevention, Detection, and Control Program; Treatment and Continuing Care Rehabilitation Program; and Research Resources Program, all charged with the effective application of cancer research findings.

The division also develops a national system of cancer centers, educational research and training programs to increase the already existing strengths in the various cancer centers around the country. He is looking forward to launching the division's new chemoprevention program and to implementing educational programs for professionals on current developments in cancer prevention, diagnosis, and treatment.

In 1960, he began his medical career in Iran as the recipient of a 1-year Smith, Kline, and French fellowship. After completing an internship at the Los Angeles County General Hospital in 1962, he became an epidemiology service officer with the U.S. Public Health Service in Ohio.

In 1966, Dr. Greenwald became director of the Medical School of the University of Southern California, and in 1967, joined the Harvard School of Medical Oncology as a teaching fellow.

In 1968 he moved to Albany, N.Y., to conduct various epidemiologic studies as the director of the Cancer Control Bureau, New York State Department of Health. His particular interests included the epidemiology of leukemia, lymphoma, prostate cancer, and diethylstilbestrol-induced vaginal cancer.

For the past 4 years he has served as director of the epidemiology for the New York State Department of Health, and has coordinated most of the state's major disease prevention and control programs.

Dr. Greenwald received the distinguished service award from the New York State Department of Health, and the Redway medal and award for medical writing from the New York State Journal of Medicine. He is the author of over 60 medical articles.

A native of New York, he received a B.A. from Colgate University, N.Y. and an M.D. from the State University of New York at Syracuse. In 1967 and 1974 he earned a master's degree and doctorate in public health and epidemiology from Harvard University.

Report Issued on Annual U.S. Cancer Rates, 1973-77

A report on annual U.S. cancer rates, based on newly diagnosed cases of cancer and deaths in the U.S. has been issued by the Demographic Analysis Section, Biometry Branch, Field Studies and Statistics, Division of Cancer Cause and Prevention, NCI.

The data are from the Surveillance, Epidemiology, and End Results (SEER) Program, in which information on cancer is collected yearly for five states, five metropolitan areas, and Puerto Rico.

The report, Incidence and Mortality Data: 1973-1977 covers data collected during the program's first 5 years, including the most recent years for which comprehensive data are available. SEER is a major source of data on the occurrence (incidence) of cancer in the U.S. National estimates of the current number of cases diagnosed annually are based largely on these data.

It presents the first detailed data available on the occurrence of cancer among certain groups of American Indians, Hispanics, Hawaiians, Filipinos, Chinese, and Japanese, in addition to information on blacks and whites.

Single copies of the report are available from the Office of Cancer Communications, NCI, Bethesda, Md. 20205.

New Pamphlet Describes Types of Epileptic Seizures

Epilepsy: Hope Through Research, the latest in a series of NINCDS pamphlets devoted to neurological and communicative disorders, is now available.

The 28-page booklet describes the symptoms, diagnosis, and causes of different types of epileptic seizures, and reports on the various treatments now in use.

The publication also explores the research approaches being used to understand and combat the disorder, and offers advice to patients, family members, and those who may find themselves in a position to give first aid during a seizure.

Also listed are several voluntary health organizations especially concerned about epilepsy, and the location of human tissue banks which support epilepsy research.

Single copies can be obtained from the Office of Scientific and Health Reports, NINCDS, Bldg. 51, Rm. 9A-06, Bethesda, Md. 20205: telephone 496-5751.
Critical Care Medicine Becoming New Medical Subspecialty

By Marian Segal

On a Sunday afternoon several weeks ago a young man participating in an NIH study on Hodgkin's disease entered the Clinical Center seriously ill with pneumonia. Despite treatment, his condition steadily worsened during the course of the day. He became short of breath, his blood pressure dropped precipitously, and within a few hours' time he was barely conscious.

That evening he was transferred to the intensive care unit on 10D where he was immediately put on a ventilator to assist his breathing, given fluids intravenously, and administered medication to raise his blood pressure.

With constant surveillance and intensive treatment, his condition improved dramatically over the next few hours, and by Monday morning he was awake and alert. By Tuesday he was able to breathe without mechanical assistance, and 2 weeks later he was well enough for discharge.

Since the CC's ICU opened in April 1979, patients with a wide variety of underlying clinical problems have been admitted for management of a severe problem they all share—major organ system failure requiring critical care support.

In recent years, care of the critically ill has evolved into an important new medical subspecialty.

"The field has emerged with the changing role of hospitals," explains Dr. Joseph Parrillo, chief of the Critical Care Medicine Department. "As more and more mild to moderately ill patients are being well cared for outside the hospital environment, hospitals are evolving into centers for the most severely ill, and, in response to this trend, medical centers worldwide are establishing departments of critical care medicine."

The Clinical Center instituted the CCMD with a threefold mission: to manage intensely ill patients in the intensive care unit and provide critical care consultations throughout the hospital; to educate physicians and staff on optimal management of these patients; and to conduct research in the field.

The department operates the ICU, which serves as the medical intensive care unit for the hospital and also provides surgical intensive care for postoperative patients referred from the heart and cancer surgical services. Because some postsurgery patients have multi-organ system dysfunction, they may be transferred to this unit for special care. In addition, patients in clinical protocols requiring hemodynamic monitoring or involving potential life threatening risks are cared for in the ICU.

Intensive care requires special equipment and special personnel. Professional and support staff receive training in the complex problems and needs of critically ill patients to give them the best chance for survival. The ICU is staffed by a cardiologist, pulmonary physician, and an anesthesiologist specially trained in critical care medicine.

Because the nature of critical illness involves several major organ systems, the staff receives support from Institute physicians specializing in infectious disease, kidney disorders, and gastrointestinal malfunction.

"The ICU environment and patient population demand a specially trained support staff as well," says Dr. Parrillo. "Nurses must be able to manage unconscious patients and patients on respirators, perform cardiac resuscitation, and respond quickly to sudden changes in patient status."

Technicians in the unit also perform more diverse functions than those in most other hospital areas. They operate and monitor highly sophisticated computer equipment and must learn to run a number of diagnostic tests normally done by several technicians versed in separate procedures.

Critically ill patients require constant minute-to-minute assessment of clinical, hemodynamic, and laboratory data. To aid in this evaluation, the ICU is equipped with sophisticated computer systems that collect, sort, store, and analyze vast quantities of patient data.

Measurements of arterial pressures, cardiac output, pulmonary artery pressure, blood gases, and other vital functions are provided immediately and continuously, permitting constant assessment of each patient's status. This capability is essential in caring for very sick people whose condition can change drastically within moments, especially in response to drug administration or other therapeutic manipulation. The physician also uses the stored information to evaluate treatment and guide the course of therapy.

Most ICU patients are on a respirator or other sophisticated life support systems, and moving them out of the unit for diagnostic studies could jeopardize their care or even threaten life. To minimize this danger, Dr. Parrillo is setting up facilities for heart catheterizations, echocardiography, and radionuclide studies of heart function and coronary artery blood flow to be done in the unit itself.

Patients undergo only those tests that will provide specific information needed to guide therapy at minimum risk to the patient. The diagnostic equipment and computer capabilities enable physicians to evaluate changes in cardiovascular size, shape, and function in acute illness, discover specific areas of malfunction, and develop rational modes of therapy.

Because critical care medicine is a new discipline, most research thus far has centered on developing and refining life support technology.

The Clinical Center's CCMD plans to concentrate on studies of the basic biochemical and immunological factors underlying critical illness—a relatively unexplored area in medicine.

Frederick Has Airport Limo Service

For those NIH employees living in Frederick County, a transportation service is available on a 24-hour basis to and from the three Washington-Baltimore airports. For further information and rates, call (301) 694-6404.

In all things, success depends upon previous preparation, and without such preparation there is sure to be failure.—Confucius
Physician-runner Dr. Ron Crystal offered a scientific and practical overview of the benefits and risks of distance running to an October Medicine for the Layman audience.

As a researcher and athlete, Dr. Crystal concluded that jogging or running—now a common means of keeping fit and in shape—is coupled with a variety of changes associated with the transition from aerobic to anaerobic metabolism. This effect is coupled with a variety of changes in the heart, blood, vascular system, and muscle.

One interesting change is that conditioned runners have higher plasma levels of beta endorphins, substances found in the central nervous system, which have opium-like properties. Some believe this to be related to the "runner's high" described by individuals trained to run distances, and to the apparent addiction of many physicians who follow their own advice.

"The heart," said Dr. Crystal, "is the limiting feature. "As a researcher and athlete, Dr. Crystal concluded that jogging or running—now a common means of keeping fit and in shape—is coupled with a variety of changes associated with the transition from aerobic to anaerobic metabolism. This effect is coupled with a variety of changes in the heart, blood, vascular system, and muscle.

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A runner who uses oxygen faster than the body can supply it to muscles, is said to have passed the anaerobic threshold, and will not be able to continue for very long at that pace. "One of the key things that world class marathoners do," he said, "is to run at the anaerobic threshold." The major long-term effect of distance training, according to Dr. Crystal, is to shift the anaerobic threshold so that the person can exercise more strenuously (run faster) without making the transition from aerobic to anaerobic metabolism. This effect is coupled with a variety of changes in the heart, blood, vascular system, and muscle.

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definite benefits of running, according to Dr. Crystal, include weight control through increased expenditure of energy, increased ability to perform physical work, the changes in lifestyle—such as diet—that accompany running, and psychological benefits, in particular, improved self image. Not as certain is the lowering of heart attack risk which some running advocates claim.

Serious risks of running include sudden death from heart attack, overheating, injury to limbs from overuse, dehydration and electrolyte imbalances which can cause kidney failure, and the risk of depression if injury prevents an athlete from running.

These risks, and less serious ones such as blisters and athlete's foot, can be prevented by paying attention to diet, proper dress, adequate training, and precautions such as taking in fluids in the course of a long run.

Runners should seek the advice of doctors who are familiar with running. These physicians are less likely to misinterpret apparently abnormal diagnostic tests in runners as illness. "The electrocardiogram of a well-trained runner," said Dr. Crystal, "looks terrible."

If physicians' participation in running lends any credibility to the notion that the sport's health benefits outweigh the risks, the fact that 10 percent of the running field for the Boston marathon are physicians should be a point in the sport's favor, he said.

As a runner who averages between 60 and 70 miles a week and this year completed his fifth Boston marathon, Dr. Crystal is one member of this group of physicians who follow their own advice.

Hypertensive Volunteers May Receive Free Extractions

If you are less than 40 years old, have high blood pressure, and need to have your wisdom or other teeth extracted, you may have it done at no charge while serving as a volunteer patient for an ongoing study at NIH.

The National Heart, Lung, and Blood Institute and the National Institute of Dental Research are conducting a study of cardiovascular, hormonal, and psychological responses to tooth extractions in patients with hypertension.

Call Dr. David Goldstein at 496-4042 or 496-3175, or Dr. Ray Dionne at 496-4371 or 496-5237 for further information.

Dr. Adamson Named NCI Division Director

Dr. Richard H. Adamson has been named director of the Division of Cancer Cause and Prevention, NCI. He has been acting director of the division since September 1980.

The DCCP plans and directs a national program of laboratory, field, and demographic research on the cause and natural history of cancer and the means of preventing it. This program includes evaluation of environmental carcinogenic hazards and synthesis of epidemiological, clinical, and experimental data. The current budget for DCCP is $214 million.

Dr. Adamson received a PHS Superior Service Award in 1976 for his pioneering investigations in the use of nonhuman primates for pharmacological and toxicological studies of antitumor drugs and other xenobiotics. He received a Fulbright Award in 1965.

The author of more than 180 scientific papers, Dr. Adamson currently has editorial appointments on the scientific journals, Xenobiotica and Cancer Research, and is a member of numerous scientific societies.

Active on various NCI committees, he has also served on the committee on medical biological effects of pollutants, National Academy of Sciences. Later, he spent a year as a senior policy analyst at the White House Office of Science and Technology from 1979 to 1980.

Dr. Adamson received his bachelor's degree in chemistry from Drake University, and his M.A. and Ph.D. degrees in pharmacology, from the State University of Iowa. He has subsequently received a M.A. degree in international law and international affairs from George Washington University.

JAMA 'From The NIH' Contains 144 Reports in Last 5 Years

Over 140 clinical research articles prepared by NIH components have been published in the "From The NIH" report to the Journal of the American Medical Association during the past 5 years, according to a table of contents summary compiled by the Division of Public Information, OD.

Articles were selected as representing NIH-supported clinical research findings of potential value to the practitioner, and appeared in JAMA from August 1976 to October 1981.

The JAMA "From The NIH" table of contents list all topics, publication dates, and originating B/ID's, and is available from Maureen Mylander, 496-1766.
Bluebird of Happiness Sings Again at NIEHS

The bluebird, commemorated in song and poetry as the symbol of love, hope, and happiness, has fallen on hard times. Formerly one of the most common birds in the U.S., the number of bluebirds has been reduced by an estimated 90 percent in the last 40 years.

The wooden fence post that served as its nesting sites have been replaced by metal poles, and its primary diet of insects has been drastically reduced in many places by pesticides. Worst of all, starlings and English sparrows, introduced from England by well-meaning nature lovers last century, have all but run the native bluebird out of its few remaining nest holes.

The decline toward extinction may be nearing an end since concern has sparked action nationwide. One unique example of this action is going on in Research Triangle Park, N.C., where the limited clearing of some pine forest areas has created the fields bluebirds need for feeding and nesting.

At the National Institute of Environmental Health Sciences, the key person in the bluebird house project is Grant MacNichols, a biologist in the Laboratory of Biophysics. A student of birds since childhood, and a published nature photographer, he was first alerted to the possibilities of NIEHS as a bluebird sanctuary in 1973.

He recalls, "One of the laboratory buildings was under construction, with a cement mixer out in front, and cars parked beside it. A pair of bluebirds nested under the eaves of that building, and I decided to make a house available to them."

Mr. MacNichols now has 19 houses in the various parts of the campus. He charts their locations on a special map, with 10 of the houses circled in red showing they are occupied by nesting bluebirds this year. Most of the houses were purchased at his own expense, with several other employees chipping in.

The houses are custom built by a local hardware store. Volunteers then fasten the houses to trees, record nesting habituation, and clean the houses between broods.

Mr. MacNichols estimates that each brood contributes an average of two surviving adult birds to the population, and if nesting ground and suitable houses are provided, some of these offspring will stay in the area. A bluebird pair can have two or three broods a year.

The coloring of these 7-inch birds is dazzling. The male has a blue back, red-orange breast, and white tufts by his legs. The female is more toned down with a hint of brown.

Excited about the bluebird population at Research Triangle Park, Mr. MacNichols comments, "It might sound corny, but we have the potential for creating the bluebird capital of the world here. The percent of acreage that can be built up is limited by park policy." We want to eliminate hazardous components, and by encouraging the bluebirds, we can add a beneficial component. They contribute to our quality of life, both visually and with their song."

Steve Williams, NLM Employee, Dies of Heart Attack

Steve Williams, 29, an office machine operator in the Administrative Services Section of the National Library of Medicine, died as a result of a heart attack following complications while being treated for sickle cell anemia and Hodgkin’s disease, at Georgetown University Hospital on Oct. 24.

Mr. Williams, an NIH employee for the past 11 years, began working at NIH in the Housekeeping Section after graduating from Roosevelt High in Washington, D.C., in 1970. He transferred to NLM in 1975.

He is survived by his parents, three brothers, and three sisters. Mr. Williams’ interment was at the Lincoln Memorial Cemetery. Expressions of sympathy collected from NLM employees were forwarded to the family.

Dr. Whitehair Receives Preventive Medicine Award

Dr. Leo A. Whitehair, director of the Primate Research Centers Program, DRR, received the 1981 Helwig-Jennings Award at a recent meeting of the American College of Veterinary Preventive Medicine in St. Louis.

Mrs. Echelman Named NLM Regent Member

Shirley Echelman, executive director of the Association of Research Libraries, has been recently appointed to a 4-year term as a National Library of Medicine regent. The NLM Board of Regents meets three times a year to oversee Library policy and to review application for grants.

Dr. Whitehair (l) receives the Helwig-Jennings award from Col. Edward L. Menning, chairman of the ACVPM awards committee. He is the third recipient so honored for outstanding contributions to the field.

The ACVPM is a national organization of approximately 400 D.V.M.’s who are board certified in the field of veterinary public health and preventive medicine. The award was initiated in 1980 to recognize members for “significant and lasting contributions to the totality of preventive medicine.”

Currently serving as a member of the board of councilors and chairman of the budget committee, Dr. Whitehair was secretary-treasurer of the organization from 1975-1979.

Think Snow!

The R&W Ski Club has planned several events for the winter season: Greek Peak, Dec. 31-Jan. 3; Elk Mountain, Jan. 22-24; Mont Tremblant, Feb. 28-Mar. 6; Vail, Jan. 2-19; Sun Valley, Feb. 27-Mar. 6; Jackson Hole, Feb. 27-Mar. 6; Wintergreen, Jan. 28, Feb. 11, 25 (day trips only); Innsbruck, Feb. 20-28; and Ski Liberty, Jan 13-Feb. 10 (day trips only).

Contact R&W for details, 496-4600.

Think Snow!
Power Switch From NIH Aids Metro Stations

Last week the first of two Metro-related projects designed to switch extra capacity electricity from NIH to the two nearby underground stations began, and will save the rail system an estimated $1.2 million. The savings is a result of an unusual planning strategy developed by the Washington Metropolitan Area Transportation Authority, the Potomac Electric and Power Company and NIH. As a result of the cooperative agreement all parties will benefit, says Dr. Edwin D. Becker, Associate Director for Research Services, OD. In no way will it affect NIH's normal or emergency power supply.

Metro will not have to spend approximately $800,000 in new construction costs on Old Georgetown Road and Rockville Pike. Pepco will not have to run a lengthy $400,000 power supply line to serve its Metro customer, and NIH will be supplied, at no expense to the government, underground conduits to serve NIH's future power needs. Neighboring citizens will also benefit, although indirectly, because certain streets will not have to be torn up and repaved.

The plan calls for the relocation of the main power source for Bldg. 11 (NIH's Power Plant) from Bldg. 17 (the east power substation) to Bldg. 46 (the west power substation). This load transfer of 5,000 KW of electricity will be released from Bldg. 17 for the Pooks Hill Metro Station. Another part of the plan includes the construction of an underground conduit line to be dug along the south and east boundaries of NIH so that electric service to Metro's NIH/Naval Medical Center traction power station can be provided.

"There should be no disruption to NIH employees or their work," noted Dr. Becker, "although sections of the road along Service Road South might be narrowed for a time."

When the projects are completed they will be an integral part of the system that provides full electrical capacity along Metro's Rockville route. Experts predict that power will be switched on for the line by September 1982, and that the line will be fully operational by November 1983.

Tentatively, the plan also proposes that 4,000 feet of conduit be dug and constructed inside the fence south and east of NIH.

Along with this work, there will be a rearrangement of the power supply to Bldg. 11, and the installation of conduits in part of the route between Bldg. 11 and Bldg. 46 for future use by NIH.

Part of the 5,000 KW electric load transfer plan includes the installation of three new circuit breakers in Bldg. 46. They will be used to facilitate the enormous demands for electricity that Metro trains need to travel from station to station.

Pepco construction engineers say the conduit work around Bldg. 11 now under way will be completed within 2 months, weather permitting. Delivery of the new 13.2 kv switchgear is expected by next June and would be installed over the summer.

They also predict, winter weather permitting, that conduit construction along the south and east sides of NIH will get under way by February, and will take 3 months to complete.

Second Neuronal Specificity Discussion To Be Held Nov. 24

The second seminar of the Fogarty International Center scholars discussion series on Neuronal Specificity will be held Tuesday, Nov. 24, at 7:30 p.m., Bldg. 16 (Stone House). The subject for the evening will be Transmitter Peptides and Their Receptors.

Dr. Tomas Hokfelt, FIC scholar, will introduce three researchers from the National Institute of Mental Health. Dr. Michael Brownstein, Laboratory of Clinical Science, will speak on Mechanisms for Synthesis and Inactivation of Peptides.

Dr. John Tallman and Lana Skirboll, both of the Biological Psychiatry Branch, will address the topics Molecular Mechanisms of Brain Receptors, and Electrophysiology of Coexisting Transmitters: Dopamine and CCK Specificity of Action, respectively. For further information on these lectures, call Dr. Hokfelt, 496-1739.

The third seminar in the Neuronal Specificity series is scheduled for Thursday, Dec. 10, at 7:30 p.m., Bldg. 16. The subject will be Identifying Cell Recognition Molecules.

Speakers will include Dr. Lars Svennerholm, FIC scholar, whose topic will be Accretion of Gangliosides in the Brain During Development; and Dr. Kari Pfenninger, Columbia University College of Physicians and Surgeons, who will talk on Membrane Components of the Growth Cone in Neuritic Guidance and Recognition.

Additional information can be obtained by calling Dr. Svennerholm, 496-2590.

Charles Goldstein, chief of Lister Hill Center's Computer Technology Branch, NLM, received the 1981 NLM Regents Award for Scholarship or Technical Achievement from board of regents chairman Martha Williams. Mr. Goldstein was honored on Oct. 29 for his work in the development of the Integrated Library System.

Dr. Stonehill is New NCI Assistant Director

Dr. Elliott H. Stonehill has been appointed an assistant director of the National Cancer Institute. He will serve as executive secretary of the President's Cancer Panel, NCI coordinator of radiation research activities, and director of NCI consensus development activities.

He returns to NCI after brief service with the NIH Division of Research Grants.

Dr. Stonehill joined NCI in 1975 as a science analyst and research planning officer in the Office of Program Planning and Analysis, which analyzes the scientific contents of all institute-funded contracts and grants.

He also served on the Interagency Radiation Research Committee, and was a member of the emergency group that investigated radiation data related to the locale of the Three Mile Island nuclear power plant.

Dr. Stonehill has served as executive secretary of a subcommittee of the Interagency Radiation Research Committee, representing 15 government agencies. He helped create a strategy document now under review by HHS and the Congress.

Dr. Stonehill has conducted biomedical research at the Memorial Sloan-Kettering Institute for Cancer Research in New York, at the Gustave-Roussy Institute in Villejuif, France, and at the University of Sussex in Brighton, England. He also has taught microbiology as assistant professor at Cornell University Medical College.

He received a bachelor's degree from the College of the City of New York in 1950 and a master's degree from Brooklyn College in 1956. He received a Ph.D in microbiology and genetics in 1965 from Cornell University's Graduate School of Medical Sciences.

LFRA Offers Discount Coupons

The League of Federal Recreation Associations offers a discount book worth over $150 in coupons, available to government employees and their families. To obtain a copy, contact the R&W gift shops or the Activities Desk in Bldg. 31, Rm. 1A-18.

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Page 12

The NIH Record

November 24, 1981