Dr. Baltimore Discusses Cancer/Virus Relation

Nobel Laureate Dr. David Baltimore, leader in the Virology Group at the Massachusetts Institute of Technology Center for Cancer Research, will speak on the Relation of Viruses to Cancer on Monday, Feb. 26, at 8 p.m., in the Masur Auditorium.

This annual alumni lecture, sponsored by the MIT Club of Washington, is open to all.

Dr. Baltimore, who is American Cancer Society professor in the MIT department of biology, also receives support for his research from the National Cancer Institute and the National Institute of Allergy and Infectious Diseases.

He is internationally known for his accomplishments in the molecular biology of virus replication, with particular emphasis on tumor viruses. Also, he has been a leader in formulating policies and guidelines for genetic research.

Currently he is continuing his studies on the growth of viruses, specializing in its relation to cancer development.

Antenatal Diagnosis Conferees To Evaluate Techniques, Research

Obstetricians have access to a battery of sophisticated techniques to diagnose fetal disorders—amniocentesis, electronic fetal monitoring, ultrasound and fetoscopy to name a few. Are some of these procedures overused or underused? Are they safe? Reliable? Do the potential benefits to the mother and unborn child outweigh the cost and the medical risks?

These are some of the issues that will be discussed at a Consensus Development Conference on Antenatal Diagnosis to be held Mar. 5-7 at NIH.

The meeting, sponsored by the National Institute of Child Health and Human Development, is one of a series of NIH consensus development conferences. These conferences bring together scientists, practicing physicians, consumers, lawyers, ethicists, and others for the purpose of evaluating new medical developments or controversial medical procedures.

The goal is to reach some agreement about the safety, effectiveness, and proper uses of the techniques, and to suggest directions for future research.

Three Procedures Covered

At the antenatal diagnosis conference, three types of procedures will be covered:

- Predictors of hereditary disease and birth defects, including amniocentesis, fetoscopy, alpha-fetoprotein measurements and ultrasound (Mar. 5, all day);
- Predictors of fetal maturity, such as ultrasound and lecithin/sphingomyelin ratios (Mar. 6, morning);
- Predictors of fetal distress, including (See ANTENATAL, Page 11)

NIAID Sponsors Workshop on Infections in Cystic Fibrosis

The intractable problem of pseudomonas infections was the major focus of discussion during an NIAID-sponsored workshop on Infections in Cystic Fibrosis held at NIH on Jan. 9-10.

Cystic fibrosis (CF)—a lethal genetic disease affecting many organ systems—is most frequently characterized by abnormal mucus secretions that lead to pulmonary obstruction. The majority of CF patients die at an early age from respiratory infection, predominantly caused by the highly antibiotic-resistant organism, Pseudomonas aeruginosa.

In his opening remarks, Dr. William S. Jordan, Jr., director of NIAID's Microbiology and Infectious Diseases Program, stated that the more than 40 participants—representing both clinical and basic microbiology—were gathered together to examine the etiology and pathogenesis of respiratory infections in CF patients, with special attention to the pseudomonas problem and to recommend future research goals in this area to the NIAID Director.

During the 1½-day meeting more than 20 speakers presented papers directed toward the following questions:

Why are CF patients more susceptible to pseudomonas infections than are other members of the population?

Answers Needed

- What is the nature of the infection in these individuals?
- What are the characteristics of the infecting organism?
- What approaches should be explored to improve current methods of prevention and treatment?

Several speakers noted that the lung environment of CF patients seems to enhance growth of the more virulent mucoid form of the pseudomonas bacteria, which appears to be resistant to both the body's immune (See CYSTIC FIBROSIS, Page 8)
Dr. Byron B. Clark, NIGMS, Retires; Pharmacology-Toxicology Program Director

Dr. Byron B. Clark, director of the Pharmacology-Toxicology Program Branch, National Institute of General Medical Sciences, retired recently after 10 years of Government service.

In 1968 Dr. Clark was appointed director of the Pharmacology-Toxicology Program, where he developed and administered research grants and contracts designed to learn more about mechanisms of drugs and their effect on the human body.

Before joining NIGMS, he had 38 years of academic-industry research experience. Dr. Clark graduated from Baylor University in 1930 and launched his career as a research associate in 1931 at State University of Iowa, where he received both M.S. and Ph.D. degrees.

From 1947 to 1957, Dr. Clark was professor and chairman of the department of pharmacology at Tufts University School of Medicine. He joined the Mead Johnson Research Center in 1957, becoming vice president of the center in 1962.

During his career, he published more than 100 papers in the field of pharmacology, and served as consultant to several universities and drug companies.

Dr. Clark's friends and co-workers honored him with a reception, presenting him with an engraved sterling silver tray. He also received a book of good wishes written by his colleagues and former students and friends in the United States and Europe.

Dr. and Mrs. Clark plan to leave the Bethesda area shortly to reside in Cincinnati.

Normal Volunteers Needed for Study On Parkinson's Disease

Normal volunteers are needed for a study on Parkinson's disease conducted by the Experimental Therapeutics Branch, National Institute of Neurological and Communicative Disorders and Stroke.

This study will test the theory that parkinsonism is a result of the normal aging process, and will try to identify presently unknown factors in which some people develop changes in the brain that cause Parkinson's disease.

The study will evaluate changes in brain chemistry as reflected in the cerebrospinal fluid, and in intellectual and motor functions of normal healthy volunteers, 20 to 70 years of age.

Volunteers must not be blood relatives of persons with Parkinson's disease, but spouses may participate. All volunteers will be financially remunerated according to NIH guidelines.

For further information, contact Dr. Govindan Gopinathan, 496-4604, Bldg. 10, Rm. 3D-12.

Photo Competition Mar. 27

The Second Annual NIH Photography Competition, sponsored by the NIH Camera Club, will be held Tuesday, Mar. 27, in Bldg. 1, Wilson Hall.

Judging begins at 7:30 p.m. in Wilson Hall, and is open to the public.

For more details, see the last issue (Feb. 6, 1979) of *The NIH Record*. For competing, call Gail Planck, 881-1378, John Horm, 496-5251, or Ken Edwards, 496-6750.

The NIH Record

February 20, 1979
Dr. Nathaniel Young Dies; NCI Section Chief Honored for ‘Significant Contributions’

A memorial service was held on Feb. 10 in the Clinical Center Chapel for Dr. Nathaniel A. Young, chief of NCI’s Viral Oncology and Molecular Pathology Section, DCBD, who drowned on Feb. 4 while on vacation in the British Virgin Islands. He was 41 years old.

Dr. Young received his B.A. from Swarthmore College and his M.D. degree from the Yale University School of Medicine. He joined NIAID in 1964 as a fellow at the Middle American Research Unit in Panama, where he did outstanding research on the serology and epidemiology of Venezuelan equine encephalitis.

He came to Bethesda in 1966 as a resident in pathology and continued his research in virology throughout his residency.

In 1970, he left NIH and went to Harvard Medical School to work in infectious diseases. He rose to the rank of assistant professor of medicine and played an important role in the teaching of infectious diseases there.

He returned to the NCI Laboratory of Pathology as a senior investigator in 1974 and became head of the Viral Oncology and Molecular Pathology Section in 1976. He was also an attending physician in the Laboratory of Clinical Investigation of NIAID.

Dr. Young did important research on poxvirus with special emphasis on the biochemical basis for attenuation in the live virus vaccine strains. He was an international authority on poxvirus and the other enteroviruses and was the author of chapters in major textbooks of medicine on diseases caused by these agents. He continued his work with encephalitis viruses and made important contributions to their molecular biology.

In June 1978, Dr. Young was awarded a PHS Commendation Medal “for his significant contributions to clinical, pathological and experimental studies of infectious diseases in Clinical Center patients.”

He is survived by his wife, Dr. Cheryl Rubin. Expressions of sympathy may be made in the form of donations to Swarthmore College or Yale University School of Medicine.
Scientists Seek Answers to Why Brain Cells Die Prematurely in Huntington’s Disease

Why do some brain cells die before their time? Seeking answers to this question, 200 scientists from the U.S. and abroad met in San Diego for the Second International Symposium on Huntington’s Disease, sponsored by the National Institute of Neurological and Communicative Disorders and Stroke.

Huntington’s disease (HD) is a fatal hereditary disorder that ravages both the mind and the body. For unknown reasons certain brain cells die prematurely, causing mental deterioration and loss of muscle control. Symptoms worsen with time, leading to death usually within 10 to 20 years.

HD, one of the more common neurogenetic disorders, affects about 10,000 to 20,000 people in the United States. Researchers consider it an especially significant illness.

“The pathologic abnormalities in HD resemble those in senile dementia, amyotrophic lateral sclerosis, Parkinson’s disease, and other degenerative psychiatric and neurologic disorders,” explained Dr. Thomas Chase, NINCDS scientific director.

“If we can find out why the brain cells die prematurely in HD and discover what genetic factor is responsible, we will be on the way to unlocking the secrets not only of HD, but of other nervous system disorders that affect millions,” he said.

At the symposium, several investigators presented findings of biochemical, immunologic, and cell membrane changes in HD that may provide clues to its cause.

An important advance was the recent discovery that levels of certain neurotransmitters, including gamma aminobutyric acid (GABA), are much lower than normal in the brains of HD patients. Neurotransmitters are “chemical messengers” that transfer information between nerve cells.

Dr. André Barbeau, professor and head of neurology at the Institut de Recherches Cliniques de Montréal, considers these findings crucial. “Even though we don’t know what causes HD,” he said, “once we identify deficiencies that result from the primary defect, we can begin to develop effective treatments for the disease symptoms.”

Dr. Barbeau cited as an example the use of 3,4-dihydroxyphenylalanine (L-dopa) to treat Parkinson’s disease. Although scientists have not yet learned what causes Parkinson’s disease, many patients can be treated successfully by replacing the deficient L-dopa product, dopamine.

Dr. Joseph Coyle of Johns Hopkins University and Dr. Edith McGeer of the University of British Columbia are working with animal models to study the pathology of HD and test new drug treatments.

Injections of kainic acid into the brains of rats produce lesions similar to those in HD. Although the experimentally produced HD differs in some respects from the human form of disease, the researchers hope that the animal studies will help explain how and why cells die in HD.

Recent findings of lymphocyte and erythrocyte membrane changes in HD patients offer an opportunity to study the disease in non-neural tissue. Dr. Barry Amason, professor and chairman of the department of neurology at the University of Chicago, reported that lymphocytes do not “cap” normally in HD.

Under appropriate test conditions lymphocytes normally redistribute certain membrane receptors to one pole of the cell, forming a cap. But lymphocyte capping in HD is abnormal which, Dr. Amason suggested, might reflect a primary surface membrane defect.

Dr. Allen Butterfield, a chemist at the University of Kentucky, reported finding physical and biochemical changes on red blood cell membranes also. Thus, a genetic defect in HD may be expressed as a generalized cell membrane abnormality.

Each child of a parent with HD has a 50 percent chance of inheriting the disorder. But there is no laboratory test to detect the presence or absence of the defective gene; diagnosis rests solely on family history and symptoms. HD symptoms, however, do not usually appear until midlife, around age 35-40.

Dr. Nancy Wexler, a psychologist in the NINCDS Neurological Disorders Program, identified the difficulties inherent in the late onset of such a devastating hereditary disease as “a key problem.”

“Because symptoms don’t usually appear until well into the adult years,” she said, “many vital decisions must be made before the at-risk person knows whether he or she will be affected by HD, or will escape it.” Dr. Wexler described the experience of being at risk as “genetic Russian roulette.”

A special concern is family planning. Persons at risk must make decisions about marriage and childbearing without knowing whether they have inherited the HD gene—perhaps to transmit it to future generations.

If scientists could discover which gene is responsible for Huntington’s disease, the search for the biochemical abnormality—and its prevention or cure—would become more focused.

Dr. Margaret Pericak-Vance, University of North Carolina, reported on research to find the gene through genetic linkage studies. Genes that lie close to one another on the same chromosome tend to be inherited together as a group in family members. This is called linkage. When linkage is found, the location of one gene can be inferred from the presence of another.

For example, if family studies show that the HD gene is linked to another gene whose location is known to be on a certain chromosome, then scientists could assume that the HD gene lies on that same chromosome. So far, Dr. Pericak-Vance has analyzed 81 families for 22 markers (genes with known locations), and has excluded some areas for the gene.

Look for Solar Eclipse on Feb. 26

The last total solar eclipse visible in the United States and Canada this century will occur next Monday, Feb. 26, 1979.

For those people living along the narrow band from the Pacific Northwest across the Rockies and into Central Canada, the sun’s face will be blotted from view for a few seconds to almost 3 minutes. In Maryland the eclipse will cover 60 percent of the sun’s face.
Sailing and Seamanship Class
U.S. Coast Guard Auxiliary's weather, piloting, tra ilering, radiotelephone, begin at NIH Mar. 6. C lasses will be held once a week from 7:30 to 9:30 in Bldg. 31, Conf. Rm. 4.
This expanded 12-week course will cover weather, piloting, trailering, radiotelephone, and marine engines as well as the theoretical and practical aspects of sailing.
Both beginners and experienced sailors should benefit from the lectures, slides, movies, and discussions of these topics, and a certificate will be awarded for successful completion of the course.
The cost will be $9 for registration materials and textbook (which may be shared within families). Registration will be at the first class; there will be no preregistration.
For further information call 656-1027 before Mar. 2.
The NIH Sailing Club's learn-to-sail program, combining classroom instruction with on-board training will start in April. Further information and sign-ups will be available at the R&W Activities Desk shortly.

Karen Robinson Selected For Stride Program
One additional NIH employee has been selected as an intern in the 1978-79 Stride Program. Karen Robinson will begin training on Feb. 26 for a target position of public information specialist in OD, Office of Communication.
Nineteen other NIH employees have already been selected for this career development program (see the Feb. 6, 1979, NII Record).
For additional information on this program, please call Margi Dyke, Stride Program manager, Career Development Branch, 496-6211.

New Booklet Explains 'What Black Americans Should Know About Cancer'
Why are cancer rates different for Blacks and Whites? Do Black children get cancer? Is cancer related to nutrition?
These and other often-asked questions about cancer causes, prevention, detection, treatment, and rehabilitation are discussed in What Black Americans Should Know About Cancer, a new publication written especially for Black audiences.
Cosponsored by the National Medical Association, the National Association of Community Health Centers, and the National Cancer Institute, the booklet explains what people can do to help in the prevention, early detection, and prompt treatment of cancer.
A glossary of terms is included in the booklet along with a list of toll-free telephone numbers of the Cancer Information Services, which people can call if they have any additional questions about cancer.
Quantities may be obtained free by writing to: Office of Cancer Communications, NCI, Bldg. 31, Rm. 4839, Bethesda, Md. 20014.

Emma Louise Akers Retires From NIGMS After 32 Years' Government Service
Emma Louise Akers, financial management officer of the National Institute of General Medical Sciences since 1974, recently retired after more than 32 years of Government service, 20 of them at NIH.
In 1937, Mrs. Akers came to Washington to serve as a financial management officer of the Department of Agriculture. Five years later, she transferred to Agriculture's field office in Kansas City, Mo.
In 1943, Mrs. Akers returned to Washington as a budget analyst with the Office of War Information.
She accepted a 5-month detail in 1945 as acting budget officer of the European Theater of Operations for OWI in London. While there, Mrs. Akers went on a bombing mission dropping propaganda leaflets to displaced persons in Germany.
Detailed again by the State Department in 1945, she established a budget office for the Office of Foreign Liquidation Commission, and for 3 years was chief of their Budget and Control Branch. In 1948 Mrs. Akers resigned to rear her three children.
Ten years later, she came to NIH as a budget officer for the Division of Biologic Standards, Division of General Medical Sciences, and General Research Services. Her first job was to consolidate all the appropriations of all three components into one, and her last post was as financial management officer.
She attended the Chillicothe Business Col-
lege in Missouri, American University, and Financial Management Institute of Washington, D.C.
At a farewell party, her friends and co-workers presented Mrs. Akers with a diamond and ruby pendant. She is looking forward to an active new life with time for traveling.

VISITING SCIENTIST PROGRAM PARTICIPANTS
1/25—Dr. Toshiko Abe, Japan, Laboratory of Neuropathology and Neuroanatomical Sciences. Sponsor: Dr. Maria Spatz, NINCDS, Bg. 36, Rm. 4822.
1/25—Dr. Douglas F. Ward, United Kingdom, Laboratory of Molecular Biology. Sponsor: Dr. Donald Court, NCI, Bg. 37, Rm. 4803.
1/28—Dr. Sylvaine Cordier, France, Biometry Branch. Sponsor: Dr. Joseph Heseman, NIEHS, Research Triangle Park, N.C.
1/28—Dr. Silvestro Formisano, Italy, Clinical Endocrinology Branch. Sponsor: Dr. Harold Edelberg, NIMDD, Bg. 10, Rm. N310.
1/28—Dr. Ryoichi Horie, Japan, Laboratory of Neuropathology and Neuroanatomical Sciences. Sponsor: Dr. Igor Klatzow, NINCDS, Bg. 36, Rm. 4D04.
1/29—Dr. Fransje van der Waals, Netherlands, Social and Behavioral Sciences Branch. Sponsor: Dr. Kay Standley, NICH, Bg. 31, Rm. 82815.
1/30—Dr. David Johnson, United Kingdom, Developmental and Metabolic Neurology Branch. Sponsor: Dr. Rocoe Brady, NINCDS, Park Bg., Rm. 425.
1/30—Dr. Shoji Kondo, Japan, Laboratory of Chemistry. Sponsor: Dr. Louis Cohen, NIAID, Bg. 10, Rm. 11N314.

The NIH Record
Page 5
February 20, 1979
Film on 'Sickle Cell Fundamentals' Wins Three CINE Golden Eagle Awards

The Council on International Nontheatrical Events (CINE) has awarded the coveted Golden Eagle, not once but three times, to a film sponsored by the Sickle Cell Disease Branch of the Division of Blood Diseases and Resources, National Heart, Lung, and Blood Institute. The film, "Sickle Cell Fundamentals," was produced by the University of Chicago under an NHLBI grant. Three separate Golden Eagle awards were presented—to the National Institute of Environmental Health Sciences (NIEHS) for sponsoring the film, the University of Chicago for producing it, and to Learning Garden, of Los Angeles, for the animation and actual filming. "Sickle Cell Fundamentals," a 28-minute color movie that uses animation interspersed with brief live-action scenes, is narrated by Diahann Carroll.

The film comprises two parts that may be shown separately. The first is on the biochemistry, physiology, and molecular biology of hemoglobins, and the second addresses genetics and inheritance of hemoglobins.

It is intended for instructional use with high school and college audiences, biology teachers, nurses and other health educators, although it has assumed a much greater role. "This film has become the cornerstone for an important educational effort in the Institute," said Dr. George Riley, the project's director. "In 1979 we will have a series of special training seminars on sickle cell disease for high school health and science teachers. 'Sickle Cell Fundamentals' will be utilized as a key teaching aid for these seminars."

The Golden Eagle is the highest award given by CINE for professionally produced films. "Sickle Cell Fundamentals' was one of the top entries in the health science and medicine category.

George E. Seastrom Retires From NIEHS

Now that he's retired from the National Institute of Environmental Health Sciences, former procurement analyst George E. Seastrom plans a May pilgrimage with his wife, Lil, to Sweden, his family's place of origin. He plans to visit two branches of the family, one in the city of Malmo and the other in Kalmar, a port city also in the southeastern part of Sweden. He hasn't been back to visit his relatives in 48 years. "We've kept in touch, though," he says. "I've talked with them on the phone recently. We would also like to visit my wife's family's home area in France."

George has traveled widely with the Public Health Service, the Navy, and the Marine Corps. He was a Naval officer who served with the Marines, joining the Navy in 1936. "I had 5 years service before Pearl Harbor was bombed," he recalls.

Duty stations and other travel have had him to every state of the union except Alaska. With the PHS, he was stationed in Albuquerque, Seattle, and Baltimore, among other places.

Among his most memorable moments were the five earthquakes he has experienced, the most severe in the Solomon Islands that measured 7.8 on the Richter scale (which runs from 1.5 to 8.5). "We were in the palmetto and coconut grove and could hear the coconuts bouncing off the quonset huts," he says.

At NIEHS, George is known for his daily noontime walk, 3 miles through the wooded Research Triangle Park area.

In addition to their trip to Sweden and France, the Seastrons will travel from their Cary, N.C., home to visit their sons in Charlotte, N.C., and St. Thomas, Virgin Islands, where one of their sons is stationed with the Center for Disease Control.

War Declared On Waste And Fraud

President Carter has launched a campaign to root out fraud, waste, and abuse of taxpayer's money from the Government. The problems caused by such malfeasance are twofold: it increases the cost of Government, thereby contributing to inflation, and it destroys the trust of the people in their Government.

The President said in a recent speech, "This Administration has declared war on waste and fraud in Government programs. With your help we will win that war. "We are concerned with more than saving dollars, crucial as that is today, The real damage of fraud and abuse cannot be measured just in dollars and cents. For the value of the people's trust and faith in their institutions of self-government is beyond price."

The President stated that most of the funds spent in Federal programs benefit the people for whom they are intended. While losses through fraud, abuse, and error may be only a small part of the overall Federal budget, however, the total amount can be huge and demoralizing to the taxpayers public.

The President also stated that the true victims of fraud and waste are not budgetary abstractions, but flesh-and-blood people: "The unemployed teenager who gets shut out of a job—the senior citizen deprived of a needed medical service—the school child who goes without a nutritious meal—the taxpayer whose hard-earned dollar goes down the drain."

FAES Urgently Needs Furniture, Household Items

The Foundation for Advanced Education in the Sciences sponsors a program to aid foreign visitors when they first arrive at NIH. Furniture and household items are available on temporary loan to visiting fellows or scientists to ease the initial relocation problems. Its supply of items is exhausted at this time, and there is an urgent need for donations of such items in good condition for this program.

Cash donations would also be greatly appreciated in order to purchase additional items. Donations are tax deductible.

To donate items or to arrange to borrow furnishings, call Nancy Cassity, 496-5273.

All visiting scientists are requested to remember to return loaned items to the FAES before their departure, otherwise the Foundation will be unable to assist new scientists in the future.

Women: Don't Take Credit for Granted

Some people don't give a woman credit . . . and it's not her fault. Why do some women have difficulty obtaining credit? The Federal Trade Commission says one of the major problems is that many women do not have a credit history under their own names.

When creditors ask the local credit bureau for a woman's credit history, past accounts under a husband's name or a maiden name just don't show up. To help understand your credit rights, the booklet Women and Credit Histories, is available free. For your copy send a postcard to Consumer Information Center, Dept. 538G, Pueblo, Colo. 81099.

Women: Don't Take Credit for Granted

February 20, 1979

The NIH Record
NIAMDD Integrates AK-CUP Into Overall Kidney, Urologic, and Blood Diseases Program

Approximately 300 scientists from the United States and six foreign countries attended the 12th Annual Contractors Conference of the Artificial Kidney-Chronic Uremia Program of the National Institute of Arthritis, Metabolism, and Digestive Diseases, held last month in Bethesda.

At the meeting, NIAMDD Director Dr. G..anufact Donald Whedon announced that the research projects funded as contracts under the AK-CUP program are being joined into the overall Kidney, Urologic, and Blood Diseases Program under NIAMDD associate director Dr. Nancy B. Cummings.

Dr. Whedon cited Dr. Benjamin T. Burton for his leadership as the original organizer and chief of the AK-CUP and noted Dr. Burton's contributions to the development and success of the program since its beginning in 1964.

Dr. Whedon said that Institute growth and organizational changes have now led to full integration of the AK-CUP into the overall program of kidney research under Dr. Cummings, while Dr. Burton's efforts are devoted to top management activities in his capacity as associate director for Program Planning and Evaluation.

Topics discussed in the main sessions of the 3-day conference, at which each research contractor presented a progress report on his work, included altered metabolism in uremia and uremic toxins; peritoneal dialysis; and experimental therapies and devices.

The potential benefit of exercise for maintenance dialysis patients was the subject of a half-day workshop. Papers were presented on the "potentially beneficial effects of exercise in patients with chronic uremia" and "rehabilitation through exercise in the pediatric dialysis population."

Dr. Andrew P. Goldberg reported on work by his group at Washington University, St. Louis, to determine if hemodialysis patients could participate safely in an exercise training program, and whether such training would improve endocrine, metabolic, and cardiovascular abnormalities and psychosocial functioning.

Results Are Positive

Results of these studies have been positive, Dr. Goldberg said, noting that "exercise training modestly alleviates complications such as hypertension and anemia as well as abnormalities in lipid, carbohydrate, and mineral metabolism in some hemodialysis patients."

A film was presented dramatizing the marked improvement in psychosocial adjustment and exercise tolerance experienced by some patients as a result of a special exercise program.

Scientists reported on numerous current studies comparing conventional hemodialysis with a newer approach to therapy, hemofiltration. Papers compared the efficacy and costs of the two techniques and evaluated blood pressure response in patients on maintenance hemofiltration.

Researchers Dr. R. P. Popovich, Dr. J. W. Moncrief, and Dr. K. D. Nolph reported on their work under contract to determine the long-term effects of continuous ambulatory peritoneal dialysis (CAPD).

This mode of self-treatment promises to be a simple and potentially inexpensive form of therapy liberating the patient from the need to come to a dialysis center three times weekly for treatment.

A report of the research of Dr. Dimitrios G. Oreopoulos of Toronto Western Hospital in Canada also was presented.

Dr. Oreopoulos, who has added unique and innovative techniques to the original concept of self-treatment with CAPD, treats the largest patient population maintained by conventional and ambulatory peritoneal dialysis.

The majority of the reports suggest that CAPD is an efficacious mode of maintenance treatment in chronic renal failure.

Studies are now being directed toward decreasing the rate of peritonitis, defining the ideal composition of the dialysate for this therapy, and improving the access devices through which dialysate is introduced into the abdominal cavity.

NIH Joggers Will Welcome Spring With Bethesda Chase

The NIH Health's Angels Jogging Club plans to welcome the spring 1979 running season with the Mar. 4th running of the Bethesda Chase-a 20K race that winds through the NIH campus, Rock Creek Park, the Naval Medical Center, and the streets of Bethesda. Several NIH teams will be competing in that event.

The club is also scheduling a number of events for the week of Mar. 26-30 as a "warm up" for the Apr. 1st running of the 10-Mile Cherry Blossom Classic, one of the premier races held annually in the Washington, D.C. area.

Tuesday through Thursday of that week the club will sponsor a lunchtime film series (at noon, in Bldg. 31, Conf. Rm. 4), featuring the Runner's World film, "Moments of the Runner." The film includes clips from Boston, New York, and Eugene, Oreg. marathons, and clips from recent Olympics.

Representatives from the Health's Angels will be present to answer questions regarding the club and its plans for the upcoming year. Information for runners of all abilities, race schedules, club membership applications and club running gear will be available.

A special series for runners of varying abilities will begin sometime in April. Another NIH Institute Relay, an event which proved very popular last year, is being planned for sometime around May 16. Further details regarding these events will be announced within the next few weeks.

NIHers interested in more information regarding the club and its plans should contact either Al Lewis, 443-1780, or Jerry Moore, 496-2464. Club membership and race applications are available at the R&W Activities Desk, Bldg. 31, Rm. 1A-18, or may be obtained by writing Craig Edelbrock, NIH, Bldg. 15K.

The potentially beneficial effects of exercise in maintenance dialysis patients such as these at the University of Washington, St. Louis, was discussed at a half-day workshop during the 3-day conference.
Bioethics and Public Policy Workshop Is Planned
This Summer in Colorado

The Institute of Society, Ethics and the Life Sciences is sponsoring a workshop this summer on Bioethics and Public Policy which will be held at the University of Colorado in Boulder from July 15 through 22.

The workshop will examine health policy alternatives: national health insurance, the current cost containment effort, and health planning techniques. Participants in the national policy-making effort will confer with those concerned with the ethical analysis of the health policy alternatives.

Other topics will include public policy issues related to abortion, death and dying, involuntary commitment, policies on homosexuality, the ethics of behavior control, the policy dimensions of human genetics, as well as the ethical and legal positions on informed consent.

A brochure describing detailed workshop agenda, registration, and costs is available from The Hastings Center, 360 Broadway, Hastings-on-Hudson, N.Y. 10706, or call (914) 478-0500.

Dr. Donald B. Tower, Director of the National Institute of Neurological and Communicative Disorders and Stroke, discusses problems of stroke victims with playwright Arthur Kopit and radio talk-show hostess Therese Keane. Dr. Tower and Mr. Kopit were guests on "Conversations from the Kennedy Center," a lunch-hour symposium broadcast by WETA-FM from the Eisenhower Theater stage. The symposium spotlighted Mr. Kopit’s new play Wings, a drama about a woman’s struggle to regain language after a stroke—recently performed at the Kennedy Center theater.

Outdoor Activities Club Presents Slide Show On Backpacking

The R&W Outdoor Activities Club starts the 1979 season with an indoor slide show, bringing to NIH the crisp freshness of summer in the Colorado Rockies. On Thursday, Feb. 22, at noon in Wilson Hall, Bldg. 1, Dr. Seth Goldstein, DRS, will narrate a slide presentation of his backpacking trips in the Colorado high country.

This is the first of a series of events that the club plans for the 1979 spring and summer season. One monthly hike to the Shenandoah National Park will be organized during March, April, and May, and a 3-day backpacking trip over Memorial Day weekend. White water rafting trips on the Cheat River and Youghiogheny are also planned.

Cystic Fibrosis (Continued from Page 1)

defenses and to the effects of antibiotics. Administered in high doses, antibiotics sometimes lengthen the lives of pseudomonas infected CF patients. However, despite antibiotics and high levels of antibodies, many of these young people become chronic carriers of the organism, experiencing recurrent exacerbations that eventually take their lives.

The resistance of the pseudomonas may, in part, be due to the formation of a network of polysaccharide fibers surrounding the bacterium in the lung, that acts as a barrier between the organism and both drugs and antibodies.

An experimental approach to treatment—proposed by Dr. J. W. Costerton from the University of Calgary, Canada—involves blocking the formation of the mucoid capsule (bacterium’s protective “slime” layer) by administering a synthetic agent to replace an enzyme essential for its production. In theory, this procedure would make the pseudomonas more vulnerable to the effects of antibiotics as well as to antibodies and to immune response cells.

In addition, clinicians have found that during antibiotic therapy, CF patients exhibit somewhat lower levels of the drugs in their blood than do other individuals. Workshop participants called for the establishment of new guidelines for administering antibiotics to CF patients with pseudomonas infections as well as careful monitoring of drug levels.

Research on the immune response of CF patients to pseudomonas infection has produced some puzzling observations. Scientists speculate that the progressive lung damage observed in these individuals may be caused by a type of autoimmune reaction.

Previous studies have shown that CF patients usually have normal immune responses to vaccines and to other antigens, in addition to producing normal, though nonprotective, antibody levels to the pseudomonas after initial infection.

To date, pseudomonas vaccines have not been proven to be effective, particularly in chronically infected patients, and they often produce undesirable side effects. An effective vaccine will most probably depend upon identification and isolation of a protective antigen that would prevent initial colonization.

Since respiratory infections caused by organisms other than the pseudomonas may contribute to lung damage, the workshop participants agreed that CF patients may benefit greatly from vaccines against some of the major respiratory pathogens, such as the respiratory syncytial virus and influenza viruses.

Recently, investigators at the University of Texas Health Science Center have found that experimentally induced pseudomonas infections in rats mimic human infection. Studies using this animal model will allow researchers to conduct more extensive investigations into the disease process and to evaluate experimental methods of therapy.

The meeting concluded with the thought that perhaps the most valuable clues to preventing and treating pseudomonas infections in CF patients will be obtained from understanding the nature and role of their abnormal mucus production.

A summary of the workshop proceedings is expected to appear in the Journal of Infectious Diseases.

Size of Government Paper To Increase in 1980

Next year the Federal Government will shift from standard size 8½ by 11-inch paper, up from the 8 by 10½ inch size it now uses. The slightly larger paper is the standard size used in private industry.

The General Services Administration estimates that the size change will increase government paper costs by about $1 million annually.

The larger sheets will allow more to be typed on a single page, however, and GSA expects the number of sheets used to drop 5 percent. This should lead to savings in clerical processing and storage costs of between $10 and $15 million annually.

NIH Safety Office Has Ample Supply Of Protective Devices

Approximately every 3 hours, an employee in the U.S. loses the sight of one eye as the result of an accident at work.

During an average month, 30 employees lose the sight of both eyes caused by accidents while at work. That’s one person per day!

The NIH Safety Office, located in Bldg. 13, Rm. 2E-41, has an ample supply of safety glasses, goggles, and face shields of various styles and design for your eye protection. Stop by, or call 496-5323 for assistance.
Robert Lauder Retires, DES Budget Officer Had 32 Years' Service

Robert B. Lauder, Jr., budget officer for the Division of Engineering Services since its inception in 1969, retired on Feb. 9 after 32 years of government service.

Mr. Lauder came to NIH in 1956, and was the budget officer for the Division of Research Services until it was reorganized in 1969. Most of his service involved financial aspects of the NIH direct construction program.

A native of Binghamton, N.Y., he was stationed at the Walter Reed Army Medical Center during his military service in World War II.

He began his civilian career in 1946 as a supervisory medical laboratory technician at the Walter Reed Army Institute of Research. During this period he began evening classes at George Washington University, receiving a B.A. in accounting in 1957.

He was an accountant for several business organizations in the Washington area before joining the Army Audit Agency in 1955.

Mr. Lauder is not going to completely retire as he has taken a part-time accountant position and will continue to manage and play drums with his combo, "The Tunsmiths."

Any spare time will be devoted to his hobbies of tape recording and amateur radio and cataloging his extensive traditional jazz collection.

Three Researchers Join Behavioral Medicine Branch of NHLBI

Among his other activities, Dr. Streufert is editor of the "Journal of Applied Social Psychology."

Dr. Siegfried Streufert, Dr. Margaret E. Mattson, and Dr. Terence O. Moore have joined the Behavioral Medicine Branch, Division of Heart and Vascular Diseases, National Heart, Lung, and Blood Institute.

Dr. Streufert, resident scholar during 1978-79, received his Ph.D. degree in experimental social psychology from Princeton University in 1962. He has served on the faculty at Princeton, Rutgers, Purdue, and as chair professor at the University of Bielefeld, Germany.

His research has addressed theoretical and applied problems in human response to stressors from the social and nonsocial environment. An experimental simulation technique developed by Dr. Streufert and his colleagues allows the analysis of response patterns in individuals or groups interacting in complex stressful situations.

The research has explored the response of persons coping with environmental complexity and with unexpected (incongruous) events. Other variables, such as risk behavior and human responses to crowded living and working situations have also been investigated.

Dr. Mattson received her Ph.D. degree in neurobiology and behavior from Cornell University in 1975. While at Cornell she participated in a multidisciplinary program in biobehavioral sciences which combined training in neurochemistry, physiology, and psychology. She conducted research on the mechanism of neurotransmitter binding to synaptic vesicles.

Dr. Mattson taught a course on the psychology and physiology of sleep and dreams and supervised the university's human sleep lab.

Prior to coming to NHLBI, Dr. Mattson was affiliated with NCI's Smoking and Health Program and collaborated with NCI on a program to identify psychosocial aspects of smoking. Other research activity has included epidemiological studies of community health problems for the EPA's Office of Toxic Substances.

Dr. Moore comes to NIH from the University of Hawaii in Honolulu. He earned his Ph.D. degree in physiology in 1966 at the University of Missouri (Columbia) School of Medicine.

His work for the past 12 years has been concerned with cardiovascular and pulmonary adaptation to stress, including myocardial metabolism, stress endocrinology, biorhythms, aging, and exercise physiology.

Dr. Moore has participated both as investigator and subject in studies of the physiologic and psychologic impact of Arctic survival situations and in studies of long-term saturation diving.

From 1968 to 1972 he administered the University of Hawaii diving research program and served as a member of the Joint U.S.-Japan Panel on Diving Medicine.

Division of Research Grants Has Limited Supply of New 1978 Thesaurus

The 1978 Medical and Health Related Sciences Thesaurus is now available in limited supply.

The Thesaurus is the subject heading authority used for compiling the Research Awards Index, a classified index of research projects supported by the Public Health Service; the NIH-NIMH Intramural Research Index; and the satellite indexes of the NIH Institutes.

It is also an integral component of CRISP (Computer Retrieval of Information on Scientific Projects), a comprehensive data system providing in-depth scientific information on PHS research grants and contracts, and NIH-NIMH intramural programs.

Further information on CRISP, the Thesaurus, and the Research Awards Index may be obtained from the Research Documentation Section, SAB, DRG, Westwood Bldg., Rm. 3A-03, phone 496-7543.

February 20, 1979

The NIH Record

Page 9
Gasoline Additive and Fumigant EDB Found To Cause Cancer in Rats and Mice

The gasoline additive and fumigant 1,2-dibromoethane—also called ethylene dibromide or EDB—has been found to cause several forms of cancer in rats and mice, according to a report by the National Cancer Institute.

Availability of the report, along with a summary of the findings, was announced in the Nov. 14, 1978, Federal Register.

The compound caused stomach cancers in long-term feeding studies with male and female mice and rats. In addition, the compound produced blood vessel cancers in male rats, liver cancers in female rats, and lung cancers in male and female mice.

The tests were part of a continuing NCI bioassay program to screen chemicals for cancer-causing activity (carcinogenicity) in animals under specific conditions.

Compounds found to be carcinogenic in these tests are generally considered capable of causing cancer in humans. The tests do not provide information, however, that could be used to predict the frequency at which cancers might be produced in human populations under actual conditions of exposure.

Produced in Large Quantities

1,2-Dibromoethane was selected for bioassay because of its potential for extensive human exposure. The compound is produced in large quantities. Its largest use is in anti-knock mixes for leaded automobile gasoline, and inhalation of automobile emissions is the principal route of human exposure.

EDB also is used as a soil fumigant for a number of food crops, including grains, fruits, and vegetables, and has been used for disinfecting fruits, vegetables, grains, tobacco, and seeds in storage.

Other uses are as an intermediate in manufacturing dyes and drugs, and as an industrial solvent.

In the NCI tests, 50 male and 50 female animals of each of the two rodent species were used for each of two dose levels of EDB mixed in corn oil and given orally by stomach tube. For comparison as controls, 20 animals of each sex and species received the corn oil without the test compound, and 20 animals of each sex and species were given neither corn oil nor EDB.

Although the study was originally scheduled to last 110 weeks for rats and 90 weeks for mice, all groups of dosed animals were terminated early because of excessive death rates.

Early development of stomach cancer was a major reason for the deaths. All surviving dosed male rats were sacrificed in week 49, females in week 61. In mice, the study was terminated in week 78, except for low-dose female mice at week 90.

Stomach cancers occurred in 90 percent (45 of 50) of the low-dose male rats, 80 percent (40 of 50) of low-dose females, 66 percent (33 of 50) of high-dose males, and 56 percent (29 of 50) of high-dose female rats. No stomach cancers were found among rats in either of the control groups.

Liver Cancers Increased

Rats also had increased rates of liver cancers and cancer-related liver nodules, particularly in high-dose females. A blood vessel cancer, hemangiosarcoma, particularly in the spleen, was found in male rats.

In mice, stomach cancers were found in 59 percent (29 of 49) of high-dose males, 56 percent (28 of 50) of high-dose females, 90 percent (45 of 50) of low-dose males and 94 percent (46 of 49) of low-dose females. None were found in either control group.

Lung cancers also developed at significant rates in both male and female mice.

Copies of the report, Bioassay of 1,2-Dibromoethane for Possible Carcinogenicity, and additional information are available from the Office of Cancer Communications, National Cancer Institute, Bethesda, Md. 20014.
Audrey Higdon, secretary to NCI Division of Cancer Cause and Prevention Director Dr. Gregory T. O’Conor, retired last month after more than 30 years of government service. Mrs. Higdon began her government career as a secretary for the War Department in 1941. After a brief period out of government she joined the Department of Agriculture in 1950 before moving in 1955 to HEW. In 1967 she joined the staff of Dr. James Cavanaugh, then head of the Comprehensive Health Planning Program in the office of the Surgeon General, and followed him to the White House where he was a special assistant to the President’s Domestic Council from 1971 until she returned to NIH in 1973.

“The most rewarding part of my government service has been the opportunity to work with so many distinguished gentlemen,” said Mrs. Higdon. “And it has been fun to watch NIH grow from six Institutes and one Division to what it is today.”

A native Washingtonian now living in Rockville, she plans to stay in the area, but will travel “as much as possible,” spend time with her family, and “enjoy life.”

Provisional Total Death Rate For 1977 Lowest Ever

During 1977 an estimated 1,898,000 deaths occurred in the United States. The provisional total death rate for 1977 (8.8 deaths per 1,000 population) was the lowest annual rate ever recorded in this country. The final rate for 1976 was 8.9.

The absence of an influenza epidemic during 1977 may in part be responsible for the record low total death rate. As indicated by monthly death rates, the provisional rates for February and March of 1977 were lower than the rates for the same months of 1976, during which there was an influenza epidemic.

Atlantic City Casino
1-Day Trip Offers Many Inviting Features

R&W is sponsoring a 1-day group tour to Atlantic City on Wednesday, Mar. 7. The price per person is $19.

This includes:
- Direct transportation from Bldg. 31 (8 a.m. departure time) to Resorts International Hotel Casino’s door via deluxe, restroom-equipped motor coach.
- Full course luncheon in the beautiful Wedgewood Pavilion, featuring a tempting array of gourmet delights from the 50-foot-long buffet . . . a very special invitation to “all you can eat” (includes taxes and gratuities).
- Official souvenir color casino gaming guide booklet.
- An Eastern tour escort to assist you at Resorts International Hotel Casino.
- Tour passengers have immediate access to Casino.
- Leave Atlantic City at 7 p.m.

This deluxe trip offers plenty of time for fun, games, and relaxation. For further information, contact the R&W Activities Desk, 496-4600.

U.S. Births Up 3.3 Million

In 1977 the number of births in the United States rose to an estimated 3,313,000. This was about 5 percent more than the final number recorded for 1976.

The birth rate rose about 3 percent from the final rate of 14.8 in 1976 to 15.3 births per 1,000 population in 1977.

The fertility rate of 67.4 births per 1,000 women 15-44 years of age was up 2 percent from the final rate for 1976, marking the first annual increase in this rate since the increases in 1969 and 1970.

Data by month show that most of the increase over the previous year occurred during the first 8 months of 1977.
Nine New Multipurpose Arthritis Centers
Broaden Research Efforts Nationally

The National Institute of Arthritis, Metabolism, and Digestive Diseases has awarded $2.3 million in grants to support nine new multipurpose arthritis centers throughout the country.

The Institute will continue to fund 15 existing multipurpose arthritis centers, bringing the total number to 24 nationwide.

Arthritis centers help professionals and patients make the best use of new knowledge about arthritis and related diseases, and conduct research and foster development in this field.

The nine institutions awarded new grants are the University of Connecticut School of Medicine, Farmington; Hospital for Special Surgery, New York, N.Y.; Vanderbilt University School of Medicine, Nashville, Tenn.; and University of Missouri School of Medicine, Columbia.

Also, State University of New York, Brooklyn; Medical College of Wisconsin, Milwaukee; University of Hawaii, John A. Burns School of Medicine, Honolulu; Case Western Reserve University Medical School, Cleveland; and University of Cincinnati Medical College, Ohio.

The initial 15 multipurpose arthritis centers funded by NIAMDD are located in Massachusetts, Alabama, Louisiana, Michigan, Arizona, Indiana, California, Missouri, New Hampshire, South Carolina, Maryland, and Texas.

The grants will enable the centers to carry out coordinated programs in three areas: education of health professionals, patients, and the public; basic and clinical research; and community demonstrations of new approaches to care for patients with long-term, disabling diseases.

The multipurpose arthritis center grants were awarded in accordance with both the National Arthritis Act (P.L. 93-640) and the recommendations of the National Commission on Arthritis and Related Musculoskeletal Diseases. As recommended, the centers have been set up in different parts of the country for wide geographic distribution.

First Science Administrators Complete Extramural Associates Program

The first five science administrators to enter the Extramural Associates Program have completed their assignments in NIH's extramural-collaborative programs.

The graduates are: Dr. William J. Hamm, professor and chairperson, department of physics, St. Mary's University, San Antonio, Tex.; Dr. John Thompson Hayes, professor and chairperson, division of natural sciences and mathematics, Paine College, Augusta, Ga.; Dr. Jean Loui Jin Lum, professor and chairperson, division of natural sciences and mathematics, Paine College, Augusta, Ga.; Dr. Marian Wilson, associate professor of biology, assistant to the vice president for research and development, Chicago State University; and Dr. Bonnie C. Wood, assistant professor of zoology, director of medical technology, University of Maine, Orono.

Invited Under IPA

The associates were invited under the Intergovernmental Personnel Act mechanism to spend 6 months at NIH as one means of promoting the participation of ethnic minorities and women in NIH-supported research. All five associates came from institutions which contribute significantly to the pool of minorities and women in science and will now return to serve as resources from whom faculty and students can obtain information on NIH-funded health-related programs.

The Extramural Associates Program enables associates to gain a thorough knowledge of the research concerns of NIH, the support mechanisms through which this research is being accomplished, and the policies and procedures which govern the awarding of grants and contracts.

Diet Workshop Opens Today

The Diet Workshop is beginning a new 10-week session today (Tuesday, Feb. 20). Classes are held every Tuesday from noon to 1 p.m. in Bldg. 31, Rm. 11A-10.

The Diet Workshop is a four-point program which includes diet, behavior modification, nutrition, and toning exercises.

Register at the R&W Activities Desk. Those who miss the initial class are welcome to join next Tuesday, Feb. 27.