

The NIH Record

Employees and Patients Express Their Wishes for the Holidays

In the spirit of the holidays, the *NIH Record* recently dispatched its crack investigative reporting team to find out the answer to an important question—What would be your fondest wish for the Christmas season?

Our respondents, queried at a number of campus locations, were urged to restrict their replies to a single sentence. Herewith the results of our decidedly informal survey:



"A Baby Huggy doll."

—Monica Henderson
3-year-old patient
from Chicago, Ill.



"Want to take a vacation in Florida."

—Zhou Gz
Guest Researcher
NICHD



"ALF doll and truck."

—Crystal Robinson
2-year-old patient
from Kanab, Utah



"Like to have my heart fixed." (scheduled for surgery next month)

—Katherine Rabberg
and husband John
from Orlando, Fla.

(Continued on Pages 6–10)

The Second Hundred Years

Top Scientists Offer Prognostications on Future of Medicine

By Bobbi Bennett

Designing drugs targeted at specific steps in the body's information transfer systems and unlocking the door to so-called polygenic disorders such as cancer, heart disease, and diabetes are among the advances that we can expect in NIH's second century. These prognostications were made by three eminent scientists at the recent NIH Centennial Science Writers Seminar. However, as the moderator Dr. Joseph E. Rall, NIH deputy director for intramural research, cautioned, technologies are being developed at such a rapid rate that it is hard to know what will be available tomorrow, let alone 10 or 20 years from now.

Dr. Solomon Snyder, director of the department of neuroscience and distinguished professor of neuroscience, pharmacology and psychiatry at Johns Hopkins Medical School in

Baltimore, described what he sees on the horizon for neuroscience, a field that did not exist when he was a research associate at NIH in the mid-1960's.

The key to advances in this field has been the discovery of neurotransmitters, the chemical messengers that enable the 10 billion nerve cells (neurons) in the brain to talk to each other. Neurotransmitters (one class of first messengers) bind to their specific receptors, which are proteins on surface membranes of neurons. A special family of chemicals—known as G proteins—then couple the receptors to effector proteins that generate inside cells another set of signals, the second messengers. These activate special enzymes that can turn on the machinery of the neurons so they can fire.

Lithium, the "miracle drug of psychiatry," is

the first drug found to act through a second messenger system, according to Snyder. Two scientists in his laboratory, Drs. Jay Baraban and Paul Worley, have discovered that some "upper" and "downer" (mood-altering) neurotransmitters use the same second messenger system, the phosphoinositide cycle. So, by dampening this system, lithium can dampen both types of neurotransmitters, thus normalizing the mood swings of manic depressive patients.

In addition to neurotransmitters, second messenger systems are important for hormones and growth factors that are involved in the growth of both normal and cancer cells. Snyder feels that the design of drugs to modulate sec-

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FUTURE

(Continued from Page 1)

ond messenger systems will be an important area of future drug research.

Dr. Maxine Singer, currently a senior investigator in NCI's Laboratory of Biochemistry, assured the reporters that in the 21st century we will know the structure of all 3 billion pairs of chemical units (basepairs) of DNA in the human genome.

Key to putting together this physical map of the human genome are the restriction enzymes. They can divide large molecules of DNA into reproducible small pieces that can be analyzed and lined up in overlapping segments to construct the map. Restriction enzymes have now been developed that only cleave the DNA molecule in a few places, thus giving scientists fewer and larger pieces to fit together. These new chemicals and a new technique—pulsed field electrophoresis—that allows pieces of DNA containing millions of basepairs to be separated have enormously increased our ability to map DNA. Singer pointed out that these techniques are being improved daily.

The specific sites where restriction enzymes cleave DNA are also being used as markers in putting together a genetic map of the human genome—the location of the estimated 100,000 genes among the basepairs. These markers are just as useful as the classical markers that have been determined by studying the inheritance of gene mutations in families. The genetic map of the human genome is a less formidable project than the physical map, according to Singer.

She feels, however, that "Even if we know the structure and the whole sequence of the human genome, it doesn't mean that we have learned a lot. It isn't easy to pick out a gene or a regulatory sequence (which controls when the gene will be turned on or off) from a stretch of basepairs. In the end, we will have to do biological experiments to define where genes are, where regulatory sequences are, and what the significance of different pieces of DNA is."

Singer stated, "The last 40 years of biology have been 'the great adventure,' one that will continue. Knowing the sequence is not 'the great adventure.' The physical map will be useful information that will provide the foundation for another century's work in biology. I look upon it as a prelude to what we can do in diagnosing and treating diseases."

Another former intramural scientist, Dr. Philip Leder, now John Emory Andrus professor and chairman of the department of genetics at Harvard Medical School, agreed that it is not necessary to know the sequence of the human genome to predict who will or will not inherit a disease. It can be done from the ge-



Dr. Solomon Snyder

netic map, which should be completed at a high level of resolution in the next 2 or 3 years.

In a few years, Leder expects that we will learn a great deal about disorders in which one gene is the culprit but he believes that the major advances will be made in polygenic diseases. In these, there is an important familial association that is based on inheritance of a constellation of genes that give rise to the propensity to develop a certain disease.

Determination of the genes involved in these disorders will enable scientists to identify the proteins that are their products. By studying these proteins, it should be possible to learn the basic nature of a disorder and thus have a rational basis for treating it.

Leder pointed out that cancer is now considered a genetic disease not because one inherits the propensity to develop it but because it is a disorder of specific genes. Scientists have found that some of these oncogenes code for growth factors. When they interact with receptors on cells, the cells grow uncontrollably. Some oncogenes are growth factor receptors and become active without the required stimulation by a growth factor. Other oncogenes encode elements of the second messenger system, the G proteins mentioned earlier. His laboratory has developed a technique to determine the nature of how these genes act.

"In the next century, molecular genetics is going to have a tremendous impact on every area of biology and, ultimately, on every area of medicine. Thus, molecular genetics must be a very important part of the medical education of every physician," said Leder. □

Healthy Men Sought

The Developmental Endocrinology Branch, NICHD, is seeking healthy men, age 45 and older, to participate as normal volunteers in a study of hormones and sexual function. Men on long-term medication may be eligible for participation on a case-by-case basis.

For further information, contact Dr. Allen Burris, Bldg. 10, Rm. 10N262, 496-6726. Participants will be paid for their time. □

FAES Announces Spring Courses

The FAES Graduate School at NIH announces the schedule of courses for the spring semester. The evening classes sponsored by the Foundation for Advanced Education in the Sciences will be given on the NIH campus.

Tuition is \$40 per credit hour, and courses may be taken for credit or audit. Courses that qualify for institute support as training should be cleared with the supervisors and administrative officers as soon as possible.

Courses are offered in biochemistry, biology, chemistry, mathematics, medicine, pharmacology, toxicology, immunology, microbiology, psychology, psychiatry, statistics, languages, administration and courses of general interest.

It is often possible to transfer credits earned to other institutions for degree work, and many courses are approved for AMA category 1 credit.

Classes will begin Feb. 1, and registration will be held Jan. 20-26. Spring schedules are available in the graduate school office in Bldg. 60, Suite 230 and in the Foundation Bookstore, Bldg. 10, Rm. B1-L101. To have one sent, call 496-7977. □

The NIH Record

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Special Health Assessments Warranted for Many Older People

While most older people remain relatively healthy, a significant number suffer from major chronic and disabling diseases. Frail older persons require special medical care, particularly at times of crisis brought on by multiple, complex medical and social problems. To help achieve more complete and appropriate care for such persons, health professionals have developed approaches that bring together a number of necessary skills.

The use of these methods for clinical decisionmaking—collectively called comprehensive geriatric assessment—was the topic of the latest NIH Consensus Conference sponsored by the National Institute on Aging, the Veterans Administration, and the Office of Medical Applications of Research.

A comprehensive geriatric assessment aims to collect and organize important health-related information on individuals to ensure that appropriate care can be planned. Such information encompasses physical, mental, and social health and measures the older person's ability to perform daily activities such as eating, dressing, and bathing.

Because information is needed in so many different domains, the assessment is often car-

ried out by a multidisciplinary team including a physician, nurse and social worker. A more indepth assessment may require input from specialists in a number of other health-related professions including nutrition, pharmacy, optometry, podiatry and many others.

Candidates most likely to benefit from geriatric assessment are often past the age of 75, suffering a severe medical crisis, or undergoing a major life transition that threatens their health and well-being, e.g., the loss of a spouse or other caregiver. While anyone can refer patients for a geriatric assessment, in most cases referrals are made by concerned family members and community service agencies.

Studies to date indicate that geriatric assessment appears to be most effective when carried out by geriatric assessment units in hospitals. There are more than 100 of these units, mostly located in teaching hospitals in large urban centers across the United States and in Veterans Administration hospitals. Assessment units are also frequently found in outpatient clinics and multi-specialty clinics.

Geriatric assessment for frail older people in these settings improves diagnostic accuracy, can lower health care costs, and decreases hos-

pitalization and nursing home use. But perhaps the ultimate clue to its success is reflected in increased survival rates—as much as 50 percent higher than older persons who receive traditional medical care. These years of increased survival are more frequently, and perhaps most importantly, accompanied by maintenance of function and independence.

Major concerns include increasing access to geriatric assessment for persons at highest risk, and ensuring continuing linkages with those who provide followup care to allow for periodic reassessment and modification of the care plan. The panel concluded that more randomized, controlled trials will help 1) establish the usefulness of geriatric assessment in other settings, 2) to develop instruments that measure change in functional status for those with less severe impairments, 3) to compare different instruments and evaluate the effect of different combinations of instruments, personnel, and interventions, and 4) to determine the most effective means for targeting comprehensive geriatric assessments to those frail older persons who are most likely to benefit.—Claire McCullough □

Weizmann Institute Celebrates NIH Centennial

In Jewish tradition, Hanukkah is a time when families gather to celebrate their past, share good feelings and gifts, and light the way for the future. It may be only slightly coincidental, then, that on Dec. 16, the first day of this year's Festival of Lights, the Weizmann Institute of Science in Rehovot, Israel, will join in the celebration of the NIH Centennial. The Weizmann Institute and NIH have been friends for more than three decades.

The Weizmann Institute is sponsoring a symposium entitled "Frontiers in Biomedical Research" to pay tribute to "the leadership and outstanding contributions of the National Institutes of Health to health, medicine, and the life sciences." Two NIH scientists, Dr. Robert Gallo of NCI, codiscoverer of the AIDS virus, and Dr. Michael Zasloff of NICHD, discoverer of a new class of antibiotics made by vertebrate animals, will speak at the symposium. Two Weizmann scientists and former Fogarty Scholars-in-Residence, Drs. Leo Sachs and Michael Feldman, will also speak. NIH deputy director for intramural research, Dr. Joseph Rall, will accept a commemorative scroll on behalf of NIH.

For the past 34 years, Weizmann scientists have fared well among international scientists in competition for NIH grants and contracts.

Since 1953, more than 300 awards have been made to the institution. Many scientists from the Weizmann Institute, including Drs. Michael Sela, a former director, and the current deputy president, Shmuel Shaltiel, have worked in various NIH intramural programs. In addition, more than a dozen Weizmann researchers have worked at NIH as Fogarty Scholars-in-Residence since the program began in 1969.

Members of the Israeli Ministry of Health, the scientific and health research community, as well as students are expected to attend the celebration.—Leslie Fink □

Balding Men Wanted for Endocrinology Research

The Developmental Endocrinology Branch, NICHD, is seeking healthy men, ages 18 to 65, for a clinical study of the balding process. Participants must be free of medical or psychiatric illness, taking no chronic medications, and in the early stages of balding.

The study lasts 1 year and requires frequent hair washing. For further information, call Dr. Golden at 496-6751, 11 a.m. to 1 p.m. daily. □



Dr. Gertrude Kay McFarland, a health scientist administrator in the Division of Research Grants, has been elected to fellowship in the American Academy of Nursing. She is executive secretary of the nursing research study section in DRG's Referral and Review Branch.

Dr. Donald Luecke Appointed DRG Deputy Director

Dr. Donald H. Luecke was recently appointed deputy director of the Division of Research Grants. He previously served as deputy director of the extramural activities program, NINCDS.

Born in St. Paul, Minn., Luecke received a B.A. degree from Macalester College, an M.S. degree from the University of Illinois and his medical degree with honors from Michigan State University. He served as a clinical microbiologist at the North Dakota state health department and on the faculty in the department of microbiology at the University of North Dakota School of Medicine.

From 1966 to 1973 his research on arthropod transmission of certain RNA and DNA tumor viruses was supported by the National Cancer Institute. Following a postdoctoral fellowship at Michigan State University and the Michigan department of health, he came to NIH in 1975.

As deputy director, he will have responsibility for the overall scientific management and coordination of the DRG's activities, in-

cluding receipt, referral, and review of grant and award applications; statistical and analytic studies of NIH extramural awards; and the selection and appointment of scientists who serve as study section members.

Luecke has an extensive knowledge of NIH extramural programs and peer review activities. In 1976, and again from 1978 to 1981, he was associated with NCI's Division of Cancer Cause and Prevention. From 1977 to 1978, he served as acting head of the physiological sciences section for NIGMS, where he administered grants in trauma and burn research and participated in the development of initial review group capability within NIGMS, serving as executive secretary for review of program projects and centers.

In 1981 he moved to NINCDS, first as deputy director of the institute's stroke and trauma program, and later as deputy director of the extramural activities program.

Luecke also received the PHS Commendation Medal in 1984. □

Tests Provide Birth Defect Screening

The National Institute of Environmental Health Sciences, in work at two private contract laboratories, has identified two tissue culture assays that together detect birth-defect-causing chemicals with 75 percent accuracy.

The incidence of birth defects is estimated at between 2 and 7 percent in the United States, or between 74,000 and 250,000 birth defects in the approximately 3.7 million infants born annually in the U.S. Although reporting is imprecise even in developed countries, the incidence of birth defects annually worldwide is probably well over 1 million.

The two assays developed with NIEHS funding test for two separate mechanisms that cause birth defects, or what scientists call teratogenicity. One assay, the mouse ovarian tumor (MOT) attachment inhibition assay, detects a chemical's interference with cell-matrix binding essential in tissue formation in an embryo. The other assay, the human embryonic palatal mesenchymal (HEPM) growth inhibition assay, detects a chemical's inhibition of cell division. These two mechanisms are considered major causes of birth defects.

Dr. Richard E. Morrissey, a research scientist at NIEHS in Research Triangle Park, N.C., worked with researchers at Northrop Services, Inc., also in Research Triangle Park, and at Microbiological Associates, Inc., in Bethesda, studying the assays. Known teratogens and nonteratogens were used in

blind tests, where the chemicals were coded and tested under standard procedures to assure impartial results.

The two assays are both done with tissue cultures in laboratory glassware. Morrissey points out that such in vitro (in glass) tests are faster and much less expensive than similar studies using laboratory animals. Also, with the current concern about reducing the number of laboratory animals used, in vitro screening shows promise for decreasing this number.

The study was done under contract with the Division of Toxicology Research and Testing, which is the principal federal agency for basic biomedical research on the health effects of environmental agents.—Tom Hawkins □

Cytapheresis Donors Sought

Researchers here at NIH need volunteers to participate in a paid cytapheeresis program. Volunteers must be at least 18 years of age, in good physical health and available at least one morning each month for approximately 3 hours. Previous experience as plasma or blood donor preferred.

For additional information please contact the research apheresis donor recruiter, 496-1468. (Note: NIH employees require annual leave granted at supervisors' discretion.) □



Margaret S. Kerza-Kwiatecki, former branch chief of the Budget Execution and Financial Reports Branch, Division of Financial Management, OD, has been appointed budget officer of NIAMS. She joined NIH as a microbiologist with NIDR and later entered the NIH Management Intern Program. She received her undergraduate degree from Catholic University and holds a masters degree in microbiology from the same university.

Lecture on Immune System

A new lecture series called "Science for All" was introduced by the STEP committee this year to present major biomedical achievements of our time in a format designed to appeal to the entire NIH community. This new series marks the STEP program's 25th year of service to the extramural community.

On Thursday, Jan. 14, from 1 to 3 p.m. in Wilson Hall, Bldg. 1, the NIH community will have an opportunity to learn about "The Immune System" from a well-known NIH scientist, Dr. Thomas Waldmann of the National Cancer Institute.

Since 1956, Waldmann has done research at NIH on the human immune response and its disorders. His major interests are the disorders of the regulation of the immune response that occur in primary immunodeficiency disease and the immunodeficiencies associated with cancer.

He will lead the audience to a basic understanding of the immune system and how it functions. He will address such areas as antibody production, description of T cells and how they work, lymphokines, genetic and acquired immunodeficiency diseases, autoimmunity, and bone marrow transplantation. As usual, an ample question and answer period is planned.

Advance registration is not required, nor is continuing education credit available. For additional information contact the STEP program office, 496-1493. □

India Celebrates NIH Centennial at Ceremony in New Delhi

By Robert Eiss

The NIH centennial commemoration has been a pan-continental affair. In addition to the many U.S. events, ceremonies have been held in Canada, Western Europe, Taiwan, the People's Republic of China, Japan, Israel, Brazil, Venezuela, Australia and India.

In India, the All India Institute of Medical Sciences (AIIMS) in New Delhi hosted a symposium on its campus to commemorate NIH and its long-standing ties to Indian institutes. Dr. Edwin Becker, NIH associate director for research services, Dr. Carleton Gajdusek, chief, Laboratory of Central Nervous System Studies, NINCDS, and Dr. Prem Sarin, deputy chief, Laboratory of Tumor Cell Biology, NCI, made presentations to a standing room only audience of more than 750 faculty, medical students and alumni of NIH fellowship programs. Alumni used the occasion to charter an NIH alumni association in India. An estimated 700 Indian scientists have received training at NIH, many of whom have returned to occupy leading positions in research and education in biomedicine.

Indian participants included Dr. M.G.K. Menon, science advisor to the prime minister; Dr. S. Bhargava, director, AIIMS; Dr. A.S. Paintal, director, Indian Council for Medical Research; and other officials. The atmosphere was generous and collegial as scientists acknowledged the contributions of NIH and others in understanding and curing disease. Indian speakers praised NIH's commitment to fundamental research and its spirit of free scientific inquiry.

Becker opened the symposium with an historical account of NIH from its turn-of-the-century beginnings as an infectious disease laboratory on Staten Island. NIH's collaborative ties to India date to the early 1960's, when intramural scientists recognized the great potential of studying vector-borne and nutrition-related diseases on the subcontinent and shared their expertise to develop field studies and laboratory capabilities. These collaborations have led to our understanding of the role of vitamin A deficiency in childhood blindness and the development of diagnostic tests to detect filarial and *M. tuberculosis* antigens. In recent years, Becker, who introduced nuclear magnetic resonance as an investigative tool in molecular studies at NIH, has expanded collaborative activities with scientists in India in fields of fundamental molecular science and spectroscopy.

Gajdusek spoke on his pioneering work in New Guinea on kuru and recent research on Alzheimer disease. Although his work on nervous system degenerative diseases has brought

him to India on many occasions and through various modes of transport, including camelback over the northern Himalayan frontier, this was his first visit to its capital city.

Findings were presented that map the brain amyloid gene expressed in Alzheimer disease and Down syndrome to chromosome 21. In both these diseases amyloid protein accumulates abnormally in the brain and forms the core of neuritic plaque. Gajdusek's finding (along with Dr. Dmitry Goldgaber, NINCDS, and others) potentially identifies an identical genetic defect in Alzheimer and Down syndrome patients and is a milestone in progress to define the genetic and biochemical processes that contribute to these dementias. Building upon this discovery, NINCDS will next attempt to determine what causes abnormal deposits of amyloid to occur.

Dr. Prem Sarin provided many in the audience with their first direct knowledge of research undertaken on AIDS and on efforts to develop antivirals and candidate vaccines. India remains largely unaffected by AIDS with less than 150 seropositive cases reported, mainly in port cities of Tamil Nadu. Leading health officials in India are concerned that its biomedical community develop the capacity to isolate and characterize the virus, and adopt early preventive measures through public education to contain its possible spread. Sarin was in India to share his knowledge at the basic and clinical research level with officials responsible for developing programs and policies in communicable diseases.

Other presenters included Dr. Severo Ochoa, a pioneer in molecular biology who received a Nobel Prize for his early work on RNA synthesis. He described his discovery and the subsequent Nobel work by Dr. Marshall Nirenberg and colleagues at NIH in breaking the genetic code. Aided by a 1940's group photograph, Ochoa also recollected his experiences as a member of NIH's first study section in physiology.

At the conclusion of the symposium, participants assembled to discuss new directions in biomedical research. Discussions spanned the increasing genetic sophistication in viral diseases and the tremendous challenge of keeping pace, to new applications anticipated in imaging technology, to questions of artificial intelligence, and whether digital-based computer models are capable of replicating the processes of human thought. A recurrent theme was the role of international collaboration as an historic catalyst to new advances in scientific research.

Discussions continued informally into the evening as the U.S. Ambassador to India, the Honorable John Gunther Dean, hosted a reception at his residence for symposium participants and Indian alumni of NIH.

The Indo-U.S. program begins NIH's second century with the inauguration of an ambitious collaborative program to address the burden of childhood vaccine-preventable diseases. The Vaccine Action Program will apply developments in recombinant DNA technology to create new and improved vaccines and diagnostic techniques for hepatitis B, prominent diarrheal diseases, respiratory infection, canine rabies and other infectious diseases. □



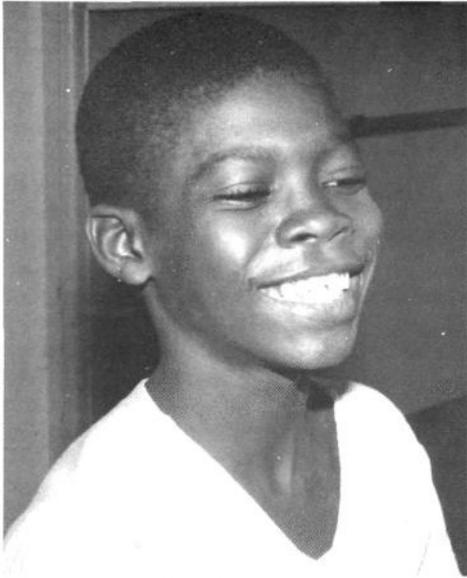
Nicholas J. Suszynski, Jr. has been appointed associate director for statistics and analysis in the Division of Research Grants. He was formerly deputy commander for human resources at the U.S. Naval Supply Systems Command. He will also serve as chief of DRG's Statistics and Analysis Branch, which operates two major information systems, IMPAC and CRISP, and many other smaller systems that support extramural review and award activities throughout NIH and other agencies in PHS.

Sporn Wins Grant

Dr. Michael B. Sporn has been honored by Johnson & Johnson as a recipient of a grant for basic biomedical research issued through the company's Focused Giving Program.

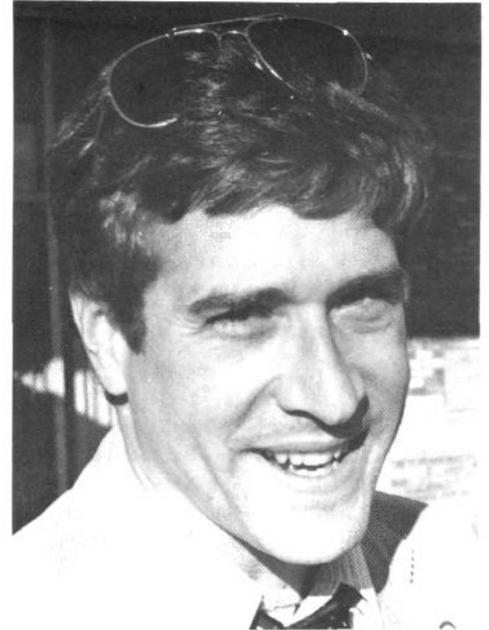
Sporn, who is chief of NCI's Laboratory of Chemoprevention, is studying growth factors and retinoids.

This year, 28 grants representing \$1,115,000 were provided to leading universities and research institutes by Johnson & Johnson. The company has contributed more than \$7 million for basic biomedical research since the Focused Giving Program began in 1980. □



"A car or a bicycle."

—Leonard Darby
13-year-old patient
from Kingston, Jamaica



"Wish that the happiness felt during the Christmas season could be extended to last throughout the coming year."

—George Coy
NCI



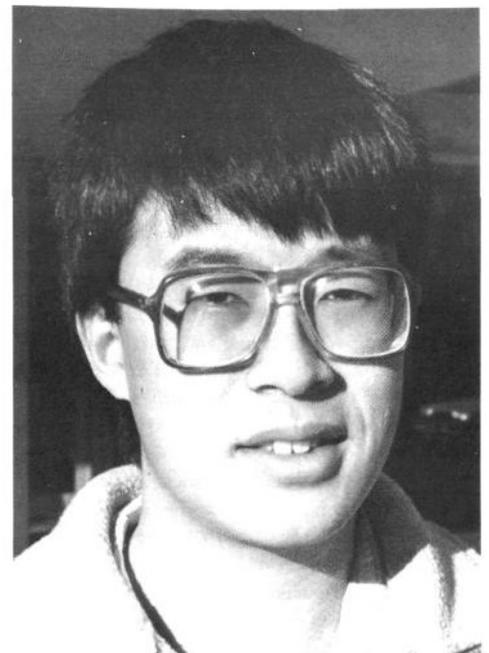
"To have my family together in North Carolina for Christmas this year."

—Marilyn Rowe
NCI



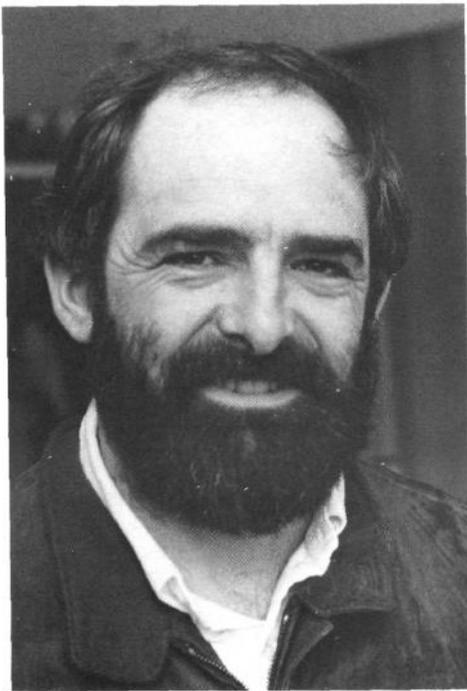
"If I could do anything I wanted to do, I'd take a 1-year sabbatical every 5 years."

—Karen H. Leighty
NIAID



"Trip to China."

—John Eng
Guest Researcher
NHLBI



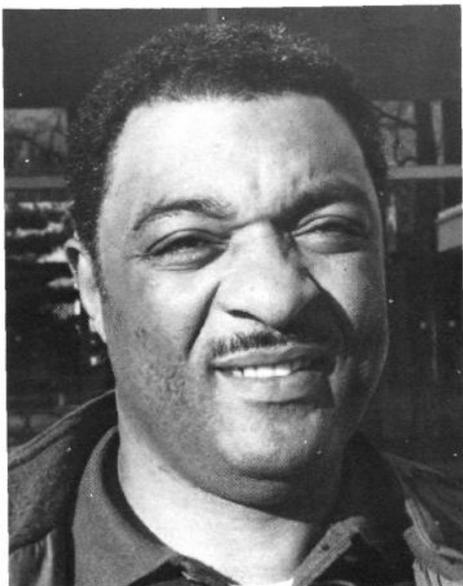
"Trip to South America."
—Douillard Jean
FDA



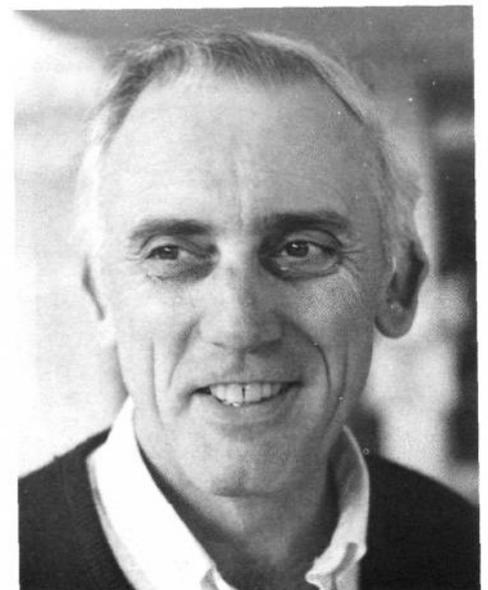
"Computers and trucks."
—Murriel L. Johnson III
6-year-old patient
from Baltimore, Md.



"Peace of mind."
—Louise Davis
CC Blood Bank



*"Wish for my children, wife, and family
to have the best Christmas they ever had."*
—Asa Langford
NIH Police

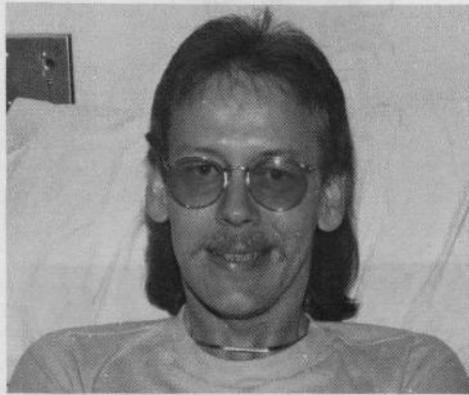


*"For all the sick children to be healed. I
have one myself."*
—Gary Payne
DAS, OD



"Want to go home." (Fla.)

—Holly Keylor
Credit Union



"That everyone could be as friendly as everyone here at NIH."

—Joe Hornbuckle, Jr.
heart patient
from Statesville, N.C.



"Be successful in a career. Figure out what I want to do as far as my degree."

—Nathalie Denton
21-year-old patient
from N. Palm Beach, Fla.



"Jobs for everybody."

—Julie Byrne
NCI



"To be in companionship with those I really love and cherish and may all mankind have the same."

—Bjorn Anne
heart patient
from London, England



"Real telephone."

—Adrian Nicole McDaniels
9-year-old patient
from Laurinburg, N.C.



"Everyone have a Merry Christmas and not worry about shopping."

—Julie Bujnowski
Rochester, N.Y.
(applying for job)



"Already got it—a VCR. In fact, I've got two of them."

—Stephen Ertle
18-year-old patient
from Avella, Pa.



"Wish they would settle the Persian Gulf business."

—Lou Hughes
Guest Researcher
NIDDK



"Just to be happy."

—Penny Hobbs
NICHD



"A 6-ft. 3-inch teddy bear."

—Barbara Meyer
NICHD Nurse



"End the trouble spots in the world."

—Frank Ackley
GAO



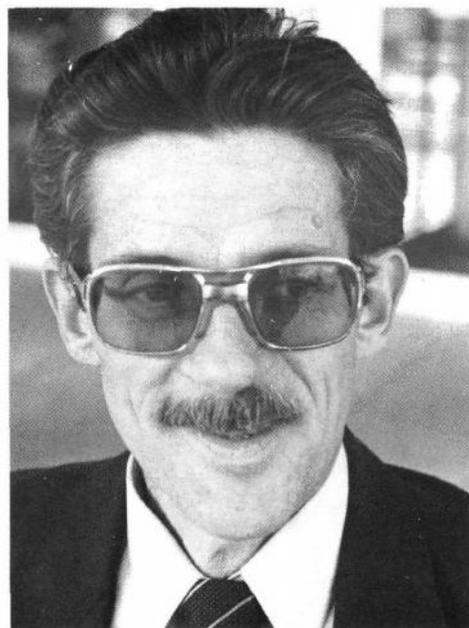
"Peace on earth and good will to men. Isn't that what Christmas is all about?"
—Wilfred Vieira
NCI



"Already got it. I'm going to the Virgin Islands for a week."
—Leslie Fox
NICHD Nurse



"Have no idea—but I'll take a thousand dollars."
—Harriet Robinson
DFM, OD



"Family harmony and world peace."
—William Schechterly
GAO



"My wish always has been for everybody to be happy and healthy."
—Patricia Bell
CC Nutrition Dept.

NIAAA Seeks Normal Vols

The NIAAA seeks normal controls between the ages of 8 and 17 to participate in a study exploring possible neuroendocrine abnormalities genetically transmitted as a result of familial alcoholism. Subjects will be administered a commonly employed diagnostic test to study thyroid function that requires one morning to complete. Participants need to be in good health, on no medication and have no alcoholism in the family. There are no complications and participants will be paid for their time.

For further information, call Dr. Ted George, 496-0983. □

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Pick up your 1988 membership card along with a "Goodie Bag" at any R&W gift shop, activities desk, or BID representative. Membership, through Jan. 29, 1988, costs \$3.50. Save on all the R&W advantages. □

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<i>Management and Supervisory</i> 496-6371	
Working With Personal Differences MBTI I	1/27-28
Effective Presentation Skills	1/20-21
Federal Budget Process	2/24-26
Effective Communications	3/29
Reviewing Other People's Writing	3/1-3
Interpersonal Relationships in the Work Environment	2/9-10
Positive Influence and Negotiation	3/7-9
Pragmatic Problem Solving	3/10
Working With Difficult Employees	3/15
Developing Motivational Strategies	3/22
Successful Middle Management	3/29
<i>Office Skills</i> 496-6211	
Medical Terminology II	1/5-2/25
The New Professional Secretary	2/12
Professional Effectiveness for the Experienced Secretary	3/17-18
<i>Adult Education</i> 496-6211	
Training and Development Services Program	
496-6211 Spring Registration ongoing	
Career Curricula Program Opens	1/11-2/19

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Hidden Databases at NIH

The Staff Training in Extramural Programs committee is sponsoring the forum "Hidden Databases at NIH," on Wednesday, Jan. 6, 2-4:30 p.m., Lister Hill Auditorium, Bldg. 38A.

The forum will provide an opportunity to learn about several relatively unknown or little used databases at NIH. These databases have many and varied uses, including selection of reviewers, program evaluation, assessment of needs, resource analysis, and performance assessment.

Among the databases to be presented are DIRLINE, CANCERLINE, PDQ, CLINPROT, institute consultant files, a restructured version of CRISP, a file containing organizations doing animal research, a consolidated grant applicant file, science and engineering doctorate and postdoctorate files, a research publication file, and a citation file.

The forum series is open to all NIH staff. No preregistration is required. For additional information, contact the STEP program office, 496-1493. □

Outstanding NCI Alumni**A Remembrance:
Kenneth M. Endicott and Robert E. Learnmouth**

By Dr. Bayard H. Morrison
and Dr. Carl G. Baker

The year should not be allowed to end without observing the loss of two of NIH's outstanding alumni, Kenneth M. Endicott and Robert E. Learnmouth.

Ken Endicott, who died July 16, 1987, at age 71, served a 38-year career as a PHS physician, filling several positions at NIH with distinction. His most notable achievements were made during his tenure with NCI.

First, as chief of the Cancer Chemotherapy National Service Center from 1955 to 1958, he created a comprehensive drug development program that drew from the resources of government, academia, and industry. This initiative, in which Endicott pioneered the use of the contract mechanism at NIH, established the basis for a complex and productive endeavor that has, through the years, yielded not only a variety of agents effective in the treatment of several forms of human cancer, but also important insights into rational drug design, the mechanisms of drug action and effective techniques for laboratory and clinical drug testing.

After leaving that program and occupying NIH posts, Endicott succeeded Dr. John R. Heller as director of NCI in 1960. As the fifth NCI director, he initiated a reorientation of the goals and operating methods of the cancer chemotherapy program and launched major programs in viral oncology and chemical carcinogenesis—sources of remarkable developments in biomedicine. In these efforts and others, which included a variety of disease-oriented task forces, he launched programs that were notable not only in the scope of the scientific problems they addressed, but also in the management approaches they embodied.

Endicott had a remarkable gift for assembling gifted staff who served him with a dedication evoked by his intellectual virtuosity, wisdom and his respect and affection for people.

After leading NCI through one of its most productive eras, Endicott left NCI in 1969 to serve until 1977 in senior positions of other PHS agencies. Following his retirement from government service, he worked in the private sector with his usual vigor and imagination almost until his death.

Ken Endicott made an indelible imprint on society: the professional contributions may be overshadowed by the often spectacular technical and scientific advances his work made possible; the personal mark will never be obscured, however, but will continue to brighten the

memories of all who were fortunate enough to have had him as a friend and colleague.

Robert E. Learnmouth, who died at age 73 on June 1, 1987, was executive officer of NCI from 1955 to 1970, a period during which John R. Heller and Kenneth Endicott were directors. He was one of the outstanding figures in both teams. Learnmouth displayed a superb technical understanding of all the key elements in effective management. While on Endicott's team, he also exhibited an intuitive approach to adapting management skills to suit not only the demands of a director whose approach was often experimental, innovative and unconventional, but also the demands of a multi-layered bureaucracy whose goals and priorities were generally shaped by a variety of forces.

Learnmouth was also an excellent teacher. He had an almost uncanny ability to identify promising young people and to instill in them a technical excellence that would assure that they would be tapped for increasingly responsible professional positions. A number of these people still remain at NIH as well as in other areas of the department.

Learnmouth's tenure at NCI was only one segment of a remarkable career. He started his 38-year career in government in 1935 as a messenger in the Farm Credit Administration. Broadening his education while working full time, he made steady advances professionally. He joined the PHS in 1946 and served from 1952 to 1955 as chief of the NIH financial management branch.

Upon leaving NCI, he joined Endicott at the Bureau of Health Manpower Education where he served as executive officer until his retirement in 1973. For a number of years after that he worked for a private professional association.

Bob Learnmouth will be remembered for his professional skills—they truly served as lubricants for the smooth functioning of complex organizational machinery. He will also be remembered for his attachment to his family; for his fascination with tennis, bridge and travel; and for his unflinching good humor, his interest in people and a genuine willingness to share their tragedies as well as their triumphs.

Learnmouth's loss is difficult to accept. Fortunately, he has left his many friends and associates so many warm memories that he remains a palpable and reassuring force in our lives.

As a closing thought, in viewing the lives of Ken Endicott and Bob Learnmouth, it is easy to

(See ALUMNI, Page 12)

'Donors to the Rescue'

CC To Observe Blood Donor Month in January

By Bernice Loiacono

Eight million blood donors across the country who supplied more than 13 million pints of blood to others in need last year are being honored by President Reagan and the American Association of Blood Banks next month.

The president has declared January as National Blood Donor Month. And to help make sure an adequate supply of blood is available in the coming year, the AABB has joined with the Department of Transfusion Medicine, Clinical Center, and other blood banks across the country to promote the 1988 donor month theme: "The need for blood never ends—Be a regular blood donor."

The DTM has added its own theme of "Blood Donors to the Rescue" for its Jan. 12 Blood Donor Awareness Day. The DTM will host a morning coffee break and open house from 9:30 to 11:30 a.m. in the 14th floor auditorium of Bldg. 10 on that day. All NIH employees and visitors are invited to attend.

Because of recent publicity on techniques that allow some patients to donate their own blood and receive it back after surgery, people

may feel it is no longer necessary to donate blood to the community supply. In fact, says DTM chief Dr. Harvey Klein, the need for blood is constant and volunteer blood donors contribute nearly 100 percent of the blood needed by Clinical Center patients, most of whom are not eligible to donate blood for their own use.

The needs of CC patients are somewhat greater than those of the local community since so few CC patients undergo routine elective surgery, for which self donation is recommended. If all who are eligible would donate blood on a regular basis, even as little as twice a year, blood needs would be met and shortages would be a thing of the past, said Klein. Even in today's high technology medical environment, the need for human blood continues—no synthetics or substitutes have yet been found.

Among the donors being honored are those who donate at the DTM Blood Donor Center located on the 5D corridor in Bldg. 10. DTM donors contribute almost 6,000 units of blood each year for transfusion to people suffering

from cancer, heart disease, leukemia, severe anemia and bone and joint disorders. In addition to whole blood, many donors contribute through apheresis donations that provide more than 22,000 units of platelets each year to seriously ill CC patients.

According to Klein, giving blood is completely safe because all of the equipment used to draw donor blood is sterile and used only once before being discarded. Blood Bank personnel discuss with every prospective donor his or her medical history to determine whether he or she is eligible to donate. They also perform a "mini-physical" to check whether the donor is indeed healthy. These measures safeguard the health of the donor as well as the health of the recipient.

Anyone interested in becoming a blood donor should contact the DTM donor recruitment section at 496-1048 and/or stop by the 14th floor auditorium between 9:30 a.m. and 1:30 p.m. on Jan. 12. If you arrive after 11:30, the coffee break will be over but the open house continues. □

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see why they worked so well together. Both were consummate professionals, deeply committed to worthy goals. They were good friends, each with an appreciation of the other's skills. Both liked and respected people and could find the humor that attends human passage through tranquil and turbulent stretches of life. All of their friends and colleagues will miss them because Ken and Bob made a part of our passage more meaningful and more fun. □

Christmas Sing-Along

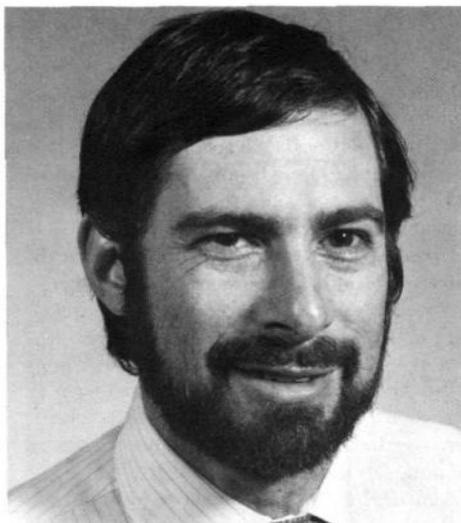
The NIH R&W Theatre Group will present a program of Christmas carols and songs on Friday, Dec. 18, at 12 noon in Masur Auditorium.

Everyone is encouraged to attend and join in the Christmas Carol Sing-along. □

Until We Meet Again in 1988

With this issue, the *NIH Record* ends its 1987 publishing schedule. We will appear again on Jan. 12 of the new year; copy deadline for that issue is Dec. 29.

We wish all of our readers an especially joyous holiday season and look forward to 1988, a year in which the *Record* will continue to be the second best thing about payday. Cheers!



Dr. Douglas Lowy, chief of NCI's Laboratory of Cellular Oncology, received this year's Marion B. Sulzberger Memorial Lectureship Award. Established in December 1983 in honor of a pioneer in immunodermatology, the award includes a prize of \$5,000. Lowy's research focuses on oncogenes and papillomaviruses. He presented his lecture, "Towards Understanding Papillomaviruses and Dermatologic Disease," on Dec. 7 at the American Academy of Dermatology's annual meeting in San Antonio.



The two top-ranking teams of the NIH Centennial tennis tournament pose with their trophies: (l to r) second place winners Anthony Rene and Linda Roberts of NIGMS; and first place winners W. Douglas Vincent and Penny Brogan of DCRT. Eight BIDs participated in the mixed doubles tournament, which began on Employee Recognition Day.