

The NIH Record

Panel Recommends Screening Newborns for Sickle Cell Disease

By June R. Wyman

An NIH consensus development panel has recommended testing of all newborns in the U.S. for sickle cell disease, the inherited red blood cell disorder that affects 1 in 400 American black newborns. Early detection could prevent potentially fatal complications of the disorder during infancy, the panel advised.

"The health risks to children with sickle cell disease are so great that major efforts should be made to identify every affected child," said the panel.

The panel recommended that most states pass laws requiring health care providers to offer sickle cell screening, but still allow parents to refuse the test. For states with few people at risk, the panel suggested testing only high-risk babies, but warned that such selective screening tends to miss many children with the disease.

The sickle cell test can be piggybacked onto current neonatal tests for genetic diseases at relatively little extra cost. The cost of adding hemoglobin screening, about 22 cents per case, could be covered by health insurance and public funds, said panel chairman Dr. Doris L. Wethers of Columbia University.

Although blood tests to diagnose sickle cell disease in newborns have been available for at least 15 years, only 10 states now offer the screening. In contrast, most states require that newborns be tested for several inherited disorders, such as phenylketonuria and hypothyroidism, that are far less common than sickle cell disease.

According to the panel, health care providers saw no benefit in early diagnosis of sickle cell disease because, it was assumed, not much could be done to help affected children. Until recently, there was no scientific evidence to prove otherwise.

But in 1986, an NHLBI-funded clinical trial showed a clear benefit of early testing: the chance to prevent a severe blood infection that is a potentially fatal complication of sickle cell disease in infants. The infection rate, the study showed, can be reduced by 84 percent if children with the disease are given regular doses of oral penicillin provided in programs of comprehensive clinical care. But since the infection can occur as early as 4 months of age, infants must be diagnosed at birth and treated early, according to Dr. Marilyn Gaston of NHLBI, who directed the study.

Babies with sickle cell disease also can de-

(See Screening, Page 2)

NIH Museum Named After DeWitt Stetten, Jr.



Dr. DeWitt Stetten Jr. (r) accepts a plaque May 21 commemorating the opening of a museum named in his honor—the DeWitt Stetten Jr. Museum of Medical Research. Dr. Alan Schechter (l), chief of NIDDK's Laboratory of Chemical Biology and Dr. Joseph E. Rall, NIH deputy director for intramural research, assist in the presentation. "This is a very important turning point for me," said Stetten, who has worked for 10 years on the NIH museum. He called museum curator Dr. Victoria Harden the museum's "most important acquisition so far." The museum, which Stetten hopes will become a center of learning, is in the lobby of the ACRF.

Four NIH Grantees Win General Motors Awards

Four NIH grantees whose work has led to increased understanding of the causes, treatment, and prevention of cancer have been named 1987 winners of the General Motors Cancer Research Foundation Prizes.

The recipient of the Charles F. Kettering Prize for the most outstanding contribution in clinical advances against cancer is Dr. Basil I. Hirschowitz. He invented the flexible fiberoptic endoscope, an instrument that has revolutionized the diagnosis of many types of cancer.

Fiberoptic endoscopes are used throughout the world to diagnose cancers of the gastrointestinal tract, lungs, and head and neck. Additional accessories have enabled physicians to use it for a variety of tasks that previously would have required surgery.

Hirschowitz is currently professor of both medicine and physiology/biophysics at the University of Alabama in Birmingham. His work was funded by a grant from DRR.

The winner of the Alfred P. Sloan Prize, given for basic science contributions, is Dr. Robert A. Weinberg, who was the first to discover and describe oncogenes in human cancers. He provided the first proof that cancers of

many types can occur because of one or a very few minute changes in genes.

Weinberg, who found the first human oncogene in 1981, is a member of the Whitehead Institute for Biomedical Research and professor of biology at the Center for Cancer Research, Massachusetts Institute of Technology. His research was funded by NCI.

The Charles S. Mott Prize for advances in the areas of causes and ultimate prevention of cancer is shared by two recipients, Drs. R. Palmer Beasley and Jesse W. Summers.

Beasley's epidemiological studies in Taiwan first conclusively linked hepatitis B virus and liver cancer. Summers clarified the genetic structure of this virus and proved it was carcinogenic in laboratory animals. Both scientists are sponsored by NCI; Summers also received funding from NIAID.

Beasley is currently professor of medicine at the University of California at San Francisco and professor of epidemiology and medicine at the University of Washington Medical Research Unit in Taipei, Taiwan. Summers is scientific director of the Institute for Cancer

(See GM AWARDS, Page 2)

GM AWARDS

(Continued from Page 1)

Research in Philadelphia.

Each of the three 1987 prizes includes an award of \$100,000 cash, a medal, and \$30,000 to support a scientific conference or workshop.

The General Motors Cancer Research Foundation Prizes have been awarded annually since 1979 to honor achievements in cancer research. The foundation is GM's largest single philanthropy; GM has contributed more than \$10 million to the foundation's work.

The award winners will lecture on Wednesday, June 10, from 1 to 3:15 p.m. in the Clinical Center's Masur Auditorium. The session is open to all on a first-come, first-seated basis. Overflow accommodations will be provided in the Clinical Center's 14th floor Assembly Hall.

For further information, call Dinah Bertran, 496-4713. □

Screening (Cont. from p. 1)

velop potentially fatal spleen disorders, Werthers noted. Their spleens can get clogged with sickle-shaped cells and not work properly to combat infections.

On future needs, the panel said screening methods should be further evaluated and refined, and laboratory services should be centralized to increase efficiency and reduce the chance of error. For now, the preferred laboratory test is cellulose acetate followed by citrate agar electrophoresis.

Also, neonatal screening should be part of a comprehensive care program for sickle cell patients and their families—including medical care, psychosocial support, and genetic counseling. These services should be in place before screening begins. □

NIH Library Committee Seeks Suggestions

Do you have a question or suggestion about the operations of the NIH Library?

The Library Advisory Committee, whose members represent the institutes and divisions, welcomes constructive criticism and suggestions for improving library services.

Members are chosen by their scientific directors or division directors and approved by the NIH deputy director for intramural research only after expressing interest in the operation of the library. Dr. Eugene C. Weinbach, NIAID research biochemist, is chairman.

The committee works closely with Carolyn Brown, chief of the Library Branch, DRS, and her staff. Comments and suggestions can be made to your BID representative on the committee. Some areas on which they advise the library are journal selection and retention, eligibility criteria for library use privileges, and computerized catalog, automated bibliographic searches, and photocopying services.

Current committee members are: Dr. Mark H. Zweig, CC; Dr. John F. Finlayson, FDA; Ellen Chu, DCRT; Dr. Irving Simons, DRG; Dr. Robert F. Hendrickson, DRR; Carolyn P. Brown and Dr. Robert A. Whitney, Jr., DRS; Dr. Stuart Yuspa, NCI; Dr. J. Samuel Zigler, Jr., NEI; Dr. Vincent Manganiello, NHLBI; Dr. Cheryl L. Grady, NIA; Dr. Jan Wolff, NIDDK/NIAMS; Dr. Eugene Weinbach, NIAID; Dr. Elaine Neale, NICHD; Dr. Horace M. Stiles, NIDR; Dr. Bert Shapiro, NIGMS; Dr. Martin Zatz, NIMH; Dr. Richard Henneberry, NINCDS; and Lois Ann Colaiana, NLM. □



Stetten gets a kiss from his wife Jane after cutting the ribbon at the museum dedication ceremony. Rall called the museum "an extension of the mind and heart of DeWitt Stetten Jr."

R&W Schedules Annual Picnic at Pinecliff

R&W will hold its annual picnic at Pinecliff, Frederick, Md., on Sunday, June 14, from noon until 6 p.m.

Hot dogs, baked beans, sauerkraut, cheese and crackers, desserts, and unlimited soda will be available.

Fees: R&W members \$2; members & spouse \$4; member and immediate family \$5; guests \$5. □

The NIH Record

Published biweekly at Bethesda, Md., by the Editorial Operations Branch, Division of Public Information, for the information of employees of the National Institutes of Health, Department of Health and Human Services, and circulated to nonemployees by subscription only through the Government Printing Office. The content is reprintable without permission. Pictures may be available on request.

NIH Record Office
Bldg. 31, Room 2B-03
Phone 496-2125
Editor
Richard McManus

Staff Writers
Joyce F. McCarthy
Anne Barber
Blair Gately
Lisa Datta

Editorial Assistant
Marilyn Berman

Staff Correspondents:
CC, Diane Price
DCRT, Joan P. Sobel
DRG, Sue Meadows
DRR, Michael Fluharty
DRS, Jim Doherty
FIC, Susan P. Stark
NCI, Patricia A. Newman
NEI, Claudia Feldman
NHLBI, June Wyman
NIA, Calvin Jackson
NIAID, Jeanne Winnick
NIAMS, Barbara Weldon
NIDDK, Eileen Corrigan
NICHD, James Hadley
NIDR, Jody Dove
NIEHS, Hugh J. Lee
NIGMS, Wanda Warddell
NIMH, Marilyn Sargent
NINCDS, Carol Rowan
NLM, Roger L. Gilkeson

The NIH Record reserves the right to make corrections, changes, or deletions in submitted copy in conformity with the policies of the paper and HHS.



Members of NCI's Surveillance, Epidemiology and End Results Program (SEER) group got short-changed in the last issue of the Record when a caption failed to match names with faces. Winners of the PHS Special Recognition Award, they are (front, from l) John W. Horn, Mary A. Kruse, Dr. John L. Young Jr., Lynn G. Ries, Dr. Edward J. Sondik. At rear are (from l) Mary E. Krause, Evelyn M. Shambaugh, Betty Jean Cicero, Ardyce J. Asire, Elizabeth B. Davison, Barbara A. Lyles, Valerie D. Van Holten, Constance L. Percy. Not pictured is Jack B. Cunningham. The Record regrets ruining the demographics in the original photo, especially since most of the SEER members hail from NCI's Demographic Analysis Section.

NINCDS Marks NIH Centennial With Exhibit, Video and Film Festival

"Know Your Brain," an educational exhibit focusing on the brain, will be displayed in the Clinical Center throughout the month of June as an NIH Centennial tribute from NINCDS.

Exhibit highlights include:

- An actual brain and brain specimens;
- Photographs of brain and nerve destruction in Parkinson's disease, Huntington's disease, AIDS, stroke, otosclerosis, and presbycusis;
- A display and brochure describing brain function;
- A hands-on minicomputer tutorial on the brain and nervous system; and
- Hearing aids developed through research over the past 100 years.

In addition, videotapes explaining Alzheimer's disease, hearing loss, head trauma, spinal cord injury, Tourette syndrome, muscular dystrophy, cerebral palsy, stuttering, and other disorders will be shown several times a week in the CC's Little Theater (*see sidebar for schedule*). The videotapes are presented at NIH through the courtesy of voluntary health agencies concerned with disorders of the brain, nervous system, and senses of communication.

Off campus, NINCDS has arranged a 3-day film festival at the Library of Congress' Mary Pickford Theater on Capitol Hill.

The films not only illustrate the medium's ability to entertain, but also its role in making the public aware of difficult health problems. The films portray people who have courageously faced the challenge of coping with disorders of the brain, the nervous system, and the senses of communication.

NINCDS scientists, including Director Murray Goldstein, will introduce the films and answer questions about the disorders depicted.

The Pickford Theater is located on the third floor of the Library of Congress' James Madison Building, Independence Avenue at First Street, SE. All programs are free but seating is limited. Reservations are recommended, and may be made beginning 1 week before any given show by calling 287-5677. Seats must be claimed 10 minutes before showtime. Programs begin at 7:30 p.m. on the following dates:

June 15. *The Men*. This film about paraplegia, made in 1950, was Marlon Brando's first motion picture.

June 17. *The Wild Child (L'Enfant Sauvage)*. Based on a true story and directed by Francois Truffaut, this film tells of a doctor's efforts to teach an abandoned, autistic child to communicate. In French with English subtitles. Preceded by *The Dark Wave*, a 1956 short about epilepsy.

June 19. *Do You Remember Love?* Joanne

Woodward gives an award-winning performance as a professor whose career is cut short by Alzheimer's disease. Preceded by *Deliverance: The Most Wonderful Woman in the World*, a 1919 silent film about Helen Keller, featuring Keller and her teacher, Annie Sullivan.

Additional information about Centennial events sponsored by NINCDS is available from Patricia Jones or Jo Ann Dorsey, 496-5924.



NINCDS Video Festival

In honor of the NIH Centennial, voluntary health agencies have made available a selection of videotapes focusing on disorders of the brain, nervous system, and senses of communication. The NINCDS invites you to attend this video festival to learn about these disorders and research under way to treat and prevent them. Videos will be shown in the Little Theatre, ACRF on the following days:

NINCDS: Neuroscience at the Edge
June 9 at 9:15 a.m.; June 11 & 30 12:15 p.m.

Central Nervous System Trauma
Years of Progress, Dreams of Success (9 min)
Paralyzed Veterans of America
June 4 & 23 at 9 a.m.; June 16 & 24 at 12:50 p.m.

Head Trauma: Major and Subtle Effects (22 min)
National Head Injury Foundation
June 4 & 23 at 9:15 a.m.; June 16 & 24 at 1:05 p.m.

The Search (20 min)
American Paralysis Association
June 4 & 23 at 9:40 a.m.; June 16 & 24 at 1:30 p.m.

Speech and Hearing Disorders
You Shared the World with Me (16 min)
Alexander Graham Bell Association for the Deaf
June 4 & 23 at 10:10 a.m.; June 16 & 24 at 11:15 a.m.

Listen Up with Norm Crosby (18 min)
Better Hearing Institute
June 4 & 23 at 10:30 a.m.; June 16 & 24 at 11:35 a.m.

Talk Is NOT a Four-Letter Word (18 min)
American Speech-Language-Hearing Association
June 4 & 23 at 10:50 a.m.; June 16 & 24 at 11:55 a.m.

Voice in Exile (30 min)
National Stuttering Project
June 4 at 11:10 a.m.; June 9 at 1:30 p.m.; June 16 & 24 at 12:15 p.m.

Neurological Disorders of Adult Life
Guillain-Barre: Overview for the Layperson (60 min)
Guillain-Barre Support Group
June 4 at 11:45 a.m.; June 16 & 24 at 9 a.m.

Patient Discusses Lou Gehrig's Disease (4 min)
Muscular Dystrophy Association,
June 4 & 23 at 12:50 p.m.; June 16 & 24 at 10:05 a.m.

Moment to Moment: Living with Parkinson's Disease (27 min)
United Parkinson's Foundation
June 4 & 23 at 1:00 p.m.; June 16 & 24 at 10:15 a.m.

Parkinson's Disease (9 min)
National Parkinson Foundation
June 18 at 12:45 p.m.; June 23 at 12:40 p.m.; June 30 at 11:50 a.m.

Caring: Families Coping with Alzheimer's Disease (28 min)
Alzheimer's Disease and Related Disorders Association
June 4 & 23 at 1:30 p.m.; June 16 & 24 at 10:45 a.m.

Stroke: Frontiers of Hope (28 min)
Stroke Foundation, Inc.
June 9 & 18 at 11:00 a.m.; June 11 & 30 at 11:15 a.m.

And Those Who Care (24 min)
National Multiple Sclerosis Association
June 9 & 18 at 11:35 a.m.; June 11 at 10:45 a.m.; June 30 at 10:50 a.m.

Neurological Disorders Occurring in Childhood

A Dream Comes True (Polio) (6 min)
March of Dimes Birth Defects Foundation
June 9 at 9:00 a.m.; June 11 at 10:30 a.m.; June 30 at 10:35 a.m.

Dyslexia (2 min)
March of Dimes Birth Defects Foundation
June 9 at 9:10 a.m.; June 11 at 10:40 a.m.; June 30 at 10:45 a.m.

Stop It. I Can't (13 min)
Tourette Syndrome Association
June 9 & 18 at 9:30 a.m.; June 11 & 30 at 12:55 p.m.

Gaucher's Disease: Coping, Caring and Searching for a Cure (23 min)
National Gaucher Foundation
June 9 & 18 at 9:50 a.m.; June 11 & 30 at 12:30 p.m.

Like A Person (18 min)
United Cerebral Palsy Associations
June 9 & 18 at 10:15 a.m.; June 11 & 30 at 1:10 p.m.

Press Conference Announcing Gene Finding (12 min)
Muscular Dystrophy Association
June 9 & 18 at 10:35 a.m.; June 11 & 30 at 1:30 p.m.

Profile of Poster Child (4 min)
Muscular Dystrophy Association
June 9 & 18 at 10:50 a.m.; June 11 & 30 at 1:45 p.m.

Hydrocephalus: A Neglected Disease (12 min)
Guardians of Hydrocephalus Research Foundation
June 9 & 18 at 12:05 p.m.; June 30 at 10:20 a.m.

Epilepsy: The Child and the Family (15 min)
Epilepsy Foundation of America
June 11 at 11:50 a.m.; June 18 at 12:25 p.m.; June 30 at 10 a.m.

Reye's Syndrome: Child Killer in Disguise (28 min)
National Reye's Syndrome Foundation
June 9 at 12:25 p.m.; June 11 at 10 a.m.; June 30 at 9:30 a.m.

Dystonia (28 min)
Dystonia Medical Research Foundation
June 9 at 1 p.m.; June 23 at 11:10 a.m.; June 30 at 9 a.m.

Retz Syndrome (50 min)
International Rett Syndrome Foundation
June 11 at 9 a.m.; June 18 at 1 p.m.; June 23 at 11:45 a.m. □

Nussenblatt Named NEI Clinical Director

By Claudia Feldman

Dr. Robert N. Nussenblatt has been named clinical director of the National Eye Institute. He will be responsible for developing and implementing the institute's clinical research program. He served as NEI deputy clinical director for 3 years.

Nussenblatt also is chief of NEI's Laboratory of Immunology. Since 1977 when he joined NEI as a clinical associate, he has built a program in ocular and inflammatory disease and immune function.

Throughout the past decade, he and co-workers have conducted clinical and laboratory research on ocular autoimmune diseases including uveitis, a group of inflammatory eye diseases responsible for a significant percentage of visual impairment in the United States. Their work has led to the development of an animal model of experimental autoimmune uveitis and breakthroughs in the clinical use of the immunosuppressant drug cyclosporine to treat uveitis. He and other NEI colleagues demonstrated that cyclosporine could be a sight-saving treatment for uveitis in patients who were unresponsive to other medical therapies.

Unfortunately, a major side effect associated with cyclosporine's use in suppressing the rejection of kidney, heart, and liver transplants is kidney damage. Nussenblatt and colleagues including Dr. Alan Palestine of the Laboratory of Immunology evaluated renal toxicity due to cyclosporine in patients receiving this therapy for uveitis.

Through testing, they uncovered important evidence of toxic damage at the cellular level. By performing kidney tissue biopsies on patients with normal kidney function, the scientists were able to see toxic histological changes in patients who received cyclosporine therapy.

Nussenblatt, together with a team of NIH and FDA scientists headed by Dr. Palestine, Clifford Lane, and Henry Masur, conducted experiments in laboratory and clinical settings that showed the effectiveness of the drug DHPG (ganciclovir) in stopping the progression of retinal lesions and loss of vision from cytomegalovirus (CMV) retinopathy.

Disease remission lasting several months was demonstrated in acquired immunodeficiency syndrome (AIDS) patients and in those with chemotherapy-induced immunosuppression. However, DHPG did not totally eradicate virus from the retina. Consequently, when administration of the drug was stopped, retinopathy recurred. In addition, the drug lowered patients' immunity to opportunistic infection and was not well tolerated by some patients with CMV retinopathy.

The first reports of the isolation of HIV, the virus that causes AIDS, from tears and corneal tissue of patients with this disease also came from Nussenblatt's group working with Dr. Robert C. Gallo's group at the National Cancer Institute. Following these reports, the Centers for Disease Control, the Eye Bank Association of America, and organizations representing eye care professionals released public health guidelines for eye exams, and for screening procedures to detect the presence of HIV in donor cornea tissue.

Commenting on Nussenblatt's research, Dr. Jin H. Kinoshita, scientific director of NEI said, "Almost no one in the United States can match his research skills in ocular immunology. He is an outstanding investigator who has a well-earned international reputation for high quality vision research." □

Mailing of U.S. Savings Bonds

Effective the pay period ending Aug. 1, DHHS will require all U.S. Savings Bond purchasers to have their savings bonds mailed to a designated address.

NIH needs your help in its efforts to update the Savings Bonds Address File. Employees will be asked, through timekeepers, to provide current designated addresses on Form HHS-357. Timekeepers will be given a printout showing current bond purchasers and addresses now on file. A letter describing the change in the distribution method and requesting a designated address will be sent to each employee currently receiving a bond. Also, timekeepers will assist in securing corrected bond forms and transmitting them to the Payroll Operations Group for processing. □

NLM Holds Closed-caption Film Premiere

The National Library of Medicine has produced a closed-caption version of its popular videotape, "Communicating for Health." NIH hearing-impaired (and non-hearing-impaired) employees are invited to the special videotape's first showing in the library's Lister Hill Center auditorium (near the Visitors Center, Bldg. 38A) on Tuesday, June 9, at noon.

The 15-minute film is an entertaining and informative overview of the library's history and current programs. □

Preview Features Latest Model PCs

Advances in personal computer technology announced by industry during the past few weeks could have long-term impact on the use of personal computers at NIH.

NIH employees can have a first-hand look at the new technology at a special preview sponsored by the Personal Workstation Office (PWO), DCRT. Those considering the purchase of personal computers may want to consider the features of these new machines before making a decision.

The new line of personal computers, the IBM Personal System/2, may be seen on Wednesday June 17, from noon to 3:30 in the Clinical Center's 14th floor auditorium.

A formal presentation will be made by IBM representatives from 1 to 2 p.m., including a question and answer session.

The PWO will have a document available at the demonstration that summarizes the new products, and offers guidelines regarding where these new products might fit at NIH. □

Author Helen Neal Dies

Helen Keating Neal, 79, a freelance writer and a former information specialist with NIH, died of cancer and kidney failure May 8 at the Portsmouth, R.I., home of her niece Patricia Neal Emsellem.

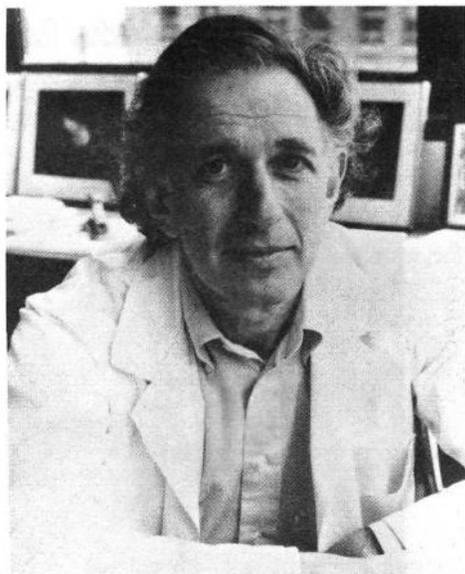
Neal worked 15 years for NIH before her retirement in 1972. Before joining NIH, she worked 15 years in Washington for the American Red Cross, where she was director of advertising and assistant director of volunteers. She helped initiate the Red Cross national network of volunteer services for and by the elderly.

She was author of the 1979 book *The Politics of Pain*, which won the medical book of the year award from the mid-Atlantic chapter of the American Medical Writers Association. She also had written several articles for magazines and a book on preservation of eyesight, which is scheduled for publication soon. She was editor of the book *Better Communications for Better Health*.

Neal was born in Boston and attended the University of Southern California.

She lived in Washington from the early 1940's until she moved back to Boston in 1986.

There are no other immediate survivors.



Dr. Eric Richard Kandel, one of the world's foremost authorities on the cellular and molecular biology of memory, will deliver the 1987 Marjorie Guthrie Lecture in Genetics. His lecture, "The Long and Short of Long-Term Memory," will address the relationship of long- and short-term memory in the marine snail *Aplysia*. The event is sponsored this year as an NIH Centennial activity by the National Institute of Neurological and Communicative Disorders and Stroke and the National Institute of General Medical Sciences. It will be held in Masur Auditorium at 8:15 p.m. on Thursday, June 11. For further information call 496-5751.

Paper Termed 'Citation Classic'

A paper on research conducted in the Dermatology Branch, NCI, has been named a "Citation Classic" in both the Clinical Medicine and Life Sciences editions of *Current Contents*.

The research findings, which have been cited in over 400 publications, reported three new types of DNA repair defects among 15 patients with xeroderma pigmentosum (XP). All patients with this rare degenerative skin disease are at very high risk of developing sunlight-induced skin cancer.

The "Citation Classic" is the edited transcript of a combined clinical staff conference held at NIH in 1973 and published in the *Annals of Internal Medicine* in 1974. Four of the participants at this conference were from NCI: Dr. Jay H. Robbins presented studies of DNA repair in XP; Dr. Kenneth H. Kraemer discussed the clinical features of XP and cell fusion studies; Dr. Marvin A. Lutzner described the effects of ultraviolet radiation on skin; and Dr. Hayden G. Coon discussed somatic cell genetic studies using a cell fusion technique he developed. Dr. Barry W. Festoff, of the (then) NINDS, described neurological abnormalities seen in the disease. □

NIH Alumni in Japan

In concert with the NIH Centennial, the NIH Alumni Association in Japan (NIHAAJ) has been recently established. About 500 NIH alumni in Japan as well as about 200 Japanese scientists currently working at NIH have enrolled. These scientists were registered among some 1,300 Japanese scientists listed by the Fogarty International Center as research scientists under the NIH Visiting Program, guest workers, Fogarty Scholars, etc., who were engaged in research at NIH during the period from 1950 to 1986.

In commemoration of the NIH Centennial and the establishment of NIHAAJ, the association will hold a "NIH Centennial Symposium," on recent progress in bioscience, on June 30 at the Century Hotel in Kyoto, Japan. Dr. James Wyngaarden, director of NIH, has been invited to attend and deliver the opening address. Four distinguished Japanese alumni members, Prof. Masakazu Hatanaka (Kyoto University), Prof. Tetsuo Shiba (Osaka University), Prof. Shigetada Nakanishi (Kyoto University), and Dr. Takashi Sugimura (National Cancer Center Research Institute) will present lectures.

A party celebrating the establishment of NIHAAJ will be held on the evening of June 29 at the same hotel, preceding the NIH Centennial Symposium. All NIH scientists and alumni who happen to be in Kyoto at this time are cordially invited to attend the symposium and party.

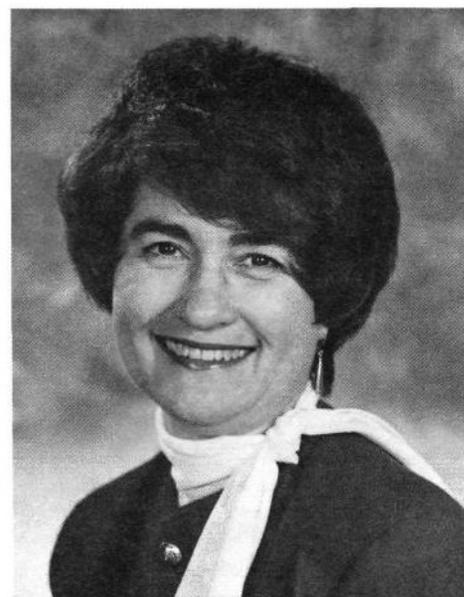
For further information, please contact Dr. Tsuyoshi Kakefuda, Bldg. 31, Rm. 4B55, 496-6344, or Dr. Siro Senoh, General Secretary, NIHAAJ, Suntory Institute for Biorganic Research, 1-1-1 Wakayamadai, Shimamoto-cho, Mishima-gun, Osaka-fu 618, Japan. □

Call for Papers

A new international research journal, "BioFactors," will be published monthly beginning in January 1988. The International Union of Biochemistry will sponsor the journal to promote exchange of information among scientists.

"BioFactors" aims at identifying and understanding the precise biochemical effects and roles of the large number of trace substances required by living organisms. These include vitamins and trace elements as well as growth factors and regulatory substances made by cells themselves.

Those interested may contact Dr. T.C. Stadtman, NHLBI Laboratory of Biochemistry, who serves as editor-in-chief of the journal as an outside activity, at 16907 Redland Rd., Derwood, MD 20855. □



Dr. Ada Sue Hinshaw has been appointed director of the National Center for Nursing Research, the newest NIH component. She will be responsible for conducting, supporting and disseminating information on basic and clinical nursing research, research training, and programs related to patient care research. The center's programs are designed to complement the other biomedical research programs at NIH. Hinshaw has most recently served as director of research and professor at the University of Arizona College of Nursing, while also serving as director of nursing research in the nursing department of Arizona's Health Sciences Center. Look for further coverage of nursing research in future issues of the Record.

Lecture on Molecular Graphics To Be Presented June 4

Dr. Robert Langridge, principal investigator of the Special Resource for Biomolecular Graphics at the University of California, San Francisco, will present DRR's Silver Anniversary Lecture on June 4. The topic of his illustrated talk will be "Molecular Graphics: Computer-Assisted Insight and Reasoning in Three Dimensions." The lecture will be held in the Lister Hill Auditorium from 3:30 to 4:30 p.m.

Langridge, a pioneer in the field of computer graphics, has been supported by DRR since 1970. He was among the first to explore the structure of DNA. His pictures of DNA and other biological molecules have appeared on the cover of *Science* and other journals, on the "Today Show," and in the movie *Star Trek II*.

According to Langridge, computer graphics light up the nature of molecules as never before. DNA and other molecules can be moved around and modified. Connective atoms can be stripped away to show the molecule's skeleton, tilted so that the viewer can peer down the axis from the top, or flattened to reveal two dimensional symmetry. He points out that such graphics allow scientists a way of extending their senses down to the atomic level. □

Relay Runners Meet C



The female winning team members for the NIAID's The Anti-Coagulants were (front row, l to r): Shannon McArtney, Jo White, Anne Burkhardt. Back row (l to r): Janet Dale and Chris Grady.



The Mixed Runners winning team for FDA and OBRR: (with a time of 13:13 were (front row, l to r): Jerry Moore, Lou Mocca, Phil Snoy. Back row: (l to r) Jeane DeBolt and Alison Wichman.



The male winning team members from NIMH's Cool to be Nerds with a time of 11:34 were (front row, l to r): Todd Harding, Tony Brown, John Bacon. Back row (l to r): Greg Kitten, Mark Tiptic.

1987
10th ANNUAL NIH INSTITUTE
CHALLENGE RELAY
ALLEN LEWIS MEMORIAL TROPHY

ALL-MALE TEAMS

TIME	TEAM NAME	INST.
11:34	Cool To Be Nerds	NIMH
12:15	Primary Anomalies	NIDR
12:58	Blood Brothers	CC
13:35	Secondary Anomalies	NIDR
14:07	Wurtz Possible Runners	LSR
14:18	Mega Bands	DCRT
14:52	Tertiary Anomalies	NIDR
15:32	LMG Trailblazers	NICHD
17:35	Power Plant	ORS

ALL-FEMALE TEAMS

15:17	Anti Coagulants	NIAID
17:40	No Names	CC

MIXED TEAMS

13:13	Mixed Runners	FDA
13:46	Boborygni	NIAID
14:22	Bldg 2	NIDDK
14:32	Corps Elite	OD
14:47	5 Easy Aces	NINCDS
14:49	Knights of NIH	NIMH
15:17	Jose's Hordes	NICHD
15:30	Running Gels	NIDDK
15:33	Fast Tracks	NCI
15:37	Little Behinds	NIAID
16:01	Slowest Common Denominators	NIH
16:02	RNA Aces	NHLBI
16:10	California Karma	NCI
16:14	DFM Masters	OD
16:16	Seedy Bees	NIDDK
16:17	Bone-Us	NIDR
16:18	Photons	OD
16:19	Dyeing Front	NIDDK
16:20	Fatty Acids	NIMH
16:23	Scatchard Plodders	NIDDK
16:26	Hormone Hustlers	NIDDK
16:28	Risk Runners	NCI
16:32	Lobs	NCI
16:38	Bernie's Best	NIAID
16:48	Greenhorn Fibers	NCI
16:58	Sherry's Nickles	DRS
17:01	Peppy People	NCI
17:02	CIS Platters	NCI
17:07	Blaze	DCRT
17:10	NAD's	NHLBI
17:11	Mustangs	NIGMS
17:31	NIH Judo Club	R&W
17:36	PDS Packers	CC
17:52	Lipoids	NINCDS
17:54	Old Hands	NIAID
18:06	Funny Money	NCI
18:06	Muck Runners	NCI
18:10	RNA Ace	NHLBI
18:28	Kickers	NEI
18:44	Freidman Flyers	DRG
19:20	5 RADS	NCI
20:28	Green's Gazelles	DRG
(14:20)*	ATP Aces	NHLBI

*Only had 1 female runner instead of the 2 required.



Dr. Joseph E. Rall (l) started the 10th annual Institute pistol for the first beat.

More than 50 teams participated in the 10th Annual Institute Challenge Relay on May 20, sponsored by the NIH Health's Angels running club.

Under continually threatening skies and on wet and slippery roads, the 250 runners dahsed



Interest in the runners' times was, for some, all-consuming.

Challenge at High Noon



Relay Race May 20 by firing the honorary starter's



Lt. Herbert D. Jackson of the NIH Police fires pistol to start second heat in the race.



A runner strains to finish his beat at the relay, which drew a good crowd despite gloomy conditions.

around Bldg. 1 in a mad five-loop chase.

The *Cool to be Nerds*, from NIMH, won the all male division in an outstanding time of 11:34. *The Mixed Runners*, from FDA and OBRR, won the mixed male and female team division in 13:13. *The Anti-Coagulants*, from NIAID, finished in 15:17, the third fastest time recorded in the all-female runner division.

The names of the members of the winning teams from the three divisions will be engraved on a new trophy that the club has commemorated in memory of one of the founding fathers of the club, Allen Lewis.



A well-deserved rest.



Smooth passage of the baton was a critical element in the relay, as Peter Dudley and Connie Atwell of NEI's "Kickers" team show. More than 250 runners performed this critical maneuver during the race May 20.

Flag Display Recalls NIH History

By Lowell D. Peart

As part of the centennial celebration, NIH has assembled 10 historical flags in the air space over the Visitor Information Center in the ACRF. The flags trace the variety of federal organizations to which NIH and its predecessor, the Hygienic Laboratory, have belonged. Most of us at NIH don't think about the origins of NIH very often and are usually surprised to learn that NIH spent 52 of its 100 years as part of the Treasury Department and that for 70 years (1902 to 1972) NIH was a regulatory agency.

During the centennial year there are many tributes to NIH's scientific accomplishments. The progress of NIH as a federal entity is less known but also interesting.

It is the summer of 1887. Emil Berliner has patented the disk phonograph, tailors Hart, Schaffner and Marx are beginning to make suits, and New York is preparing for President Cleveland's dedication of the Statue of Liberty. In popular music, Effie I. Canning has just written a song that will dwarf "Stardust" and "White Christmas." It is "Rock-a-bye Baby." In the laboratory world, Julius Petri has invented his dish for growing bacteria. The Dawes Act has bestowed U.S. citizenship on American Indians and Sherlock Holmes will soon appear. In a U.S. Marine Hospital Service hospital on Staten Island, bacteriologist Joseph Kinyoun is beginning to organize his Laboratory of Hygiene. In front of the hospital flies the 38-star U.S. flag. States yet to join the Union are: Alaska, Arizona, Hawaii, Idaho, Montana, New Mexico, North Dakota, Oklahoma, South Dakota, Utah, Washington, and Wyoming.

In Washington, Surgeon General John B. Hamilton, who has approved an expenditure of several hundred dollars for Kinyoun's laboratory, contemplates the latest confrontation with those who want to transfer the Bureau of the Marine Hospital Service from the Treasury. Perhaps he looks at the Treasury Department flag with its seal designed by the Continental Congress in 1778, some 10 years before there was a Treasury Department, and which carries the unfortunate Latin motto "The Seal of the Treasury of North America."

He might also think about the long but stormy history of the Marine Hospital Service (MHS). In 1798, Congress passed a law to collect 20 cents a month for each merchant seaman; proceeds were to erect hospitals and pay for treatment. The money thus collected was deposited in the Treasury and that, simply, is how the MHS found itself a part of the Treasury Department. Almost from the beginning there had been criticism of this large federal enterprise. After 1804, funds were so poorly col-



As a salute to the NIH Centennial and the organizations to which NIH and its predecessors have belonged, a collection of 10 historical flags has been installed over the NIH Visitor Information Center in the ACRF. The collection begins with the 38-star U.S. flag of 1887 and ends with the current U.S. flag with 50 stars, adopted July 4, 1960. In between are 8 flags under which NIH evolved in the past 100 years.

lected that Congress had to make up the deficits. In 1848 the Navy tried to take over the MHS hospitals. Following the Civil War, a study by the Army's authority on hospitals found the MHS "upon the whole in an unsatisfactory condition." This led to the naming of the first Supervising Surgeon, Dr. John M. Woodworth, the medical hero of Sherman's March to the Sea, who designed a seal and flag and organized the service.

Meanwhile, Surgeon General Hamilton really did not need to worry because on February 24, 1888, he would crush the plan before Congress to establish a Bureau of Health in the Department of the Interior by dramatically announcing before a congressional committee that Kinyoun had isolated the organism that caused cholera. But in the summer of 1887, Hamilton might have wondered if it were all worth it for his salary of \$4,000 a year.

In 1902, America was singing "In the Good Old Summertime," but not at the Marine Hospital Service, which was again under siege and losing ground to those critics who wanted it shifted away from the care of merchant seamen. Although it remained in the Treasury Department, the service was renamed the Public Health and Marine Hospital Service. The Hygienic Laboratory was expanded into 4 main divisions: bacteriology and pathology, chemistry, pharmacology and zoology. In 1902, the

Hygienic Laboratory also became a regulatory agency when it was charged with enforcing laboratory standards for producers of vaccines and antitoxins injected into the human body. Kinyoun had lobbied for this function after 12 children died from a bad batch of biologicals. Seventy years later, NIH relinquished this function to the Food and Drug Administration.

Public pressure for more emphasis on the control of contagious disease in the general population and less emphasis on the care of seamen continued. In 1903 there was another attempt to move the health agency, this time to the Department of Commerce and Labor. The secretary of the Treasury foiled this plan and had a law passed; it said that the service must remain in the Treasury Department until otherwise provided by law.

There was much public discussion of a national Department of Health. In 1912, the title and functions of the Service were changed again; this time the name became the Public Health Service. The seal and flag of the organization were also modified, this time incorporating, in tribute to its Marine heritage, a yellow background for the yellow flag flown by ships in quarantine. The seal retained the anchor, representing the sea, and the caduceus of Mercury, which is not the symbol of medicine (a single snake), but that of the pacifier as used by Army medical men, who had a peaceful mis-

sion on the battlefield.

In 1915 the Treasury Department adopted a new flag. Crossed anchors were added to recognize the Coast Guard.

On May 26, 1930, the name of Hygienic Laboratory was changed to the National Institute of Health but no flag commemorated the event. The new NIH was still part of the Bureau of the Public Health Service, Treasury Department. The Public Health Service did not support the original Ransdell bills for a health research organization.

Among other things, as originally conceived, the NIH would have been a separate organization from the PHS's Hygienic Laboratory. Worse yet, Sen. Ransdell had the outrageous and embarrassing idea of funding NIH with \$5 million. At the time, the maintenance appropriation for the Hygienic Laboratory was only \$43,000 per year. But after 4 years of wrangling, an acceptable bill was fashioned that PHS did not bitterly oppose.

Several events coalesced to create NIH. There was sentiment in Congress to do something for its veteran Sen. Ransdell, who was defeated for re-election by political upstart Huey P. Long; there had been a terrible outbreak of influenza in the winter of 1928-1929 in which nearly a third of all U.S. city dwellers had contracted the disease; and there was a general perception in the government that something should be done about the organization of medical research.

On July 1, 1939, a government reorganization transferred the Public Health Service, including the National Institute of Health, from the Treasury Department to the new Federal Security Agency (FSA). The FSA, which combined the health, education and welfare agencies of the federal government, was comprised of the Civilian Conservation Corps, National Youth Administration, Office of Education, Public Health Service, Social Security Board, and U.S. Employment Service. The FSA flag captured these functions with its representation of a secure home, a health caduceus, a tree for conservation and a lamp and book for education. Thus ended the Public Health Service's 141-year association with the Treasury Department.

The year 1953 was a year of change. Queen Elizabeth was crowned and Soviet Premier Joseph Stalin died. The armistice ending the Korean War was signed. NBC began color broadcasts on television and Bill Haley wrote the national anthem of rock and roll—"Rock Around the Clock." Most important, 1953 saw the elucidation by Watson and Crick of the structure of DNA, the hereditary material found in every living cell. There were changes for NIH as well. The Clinical Center was dedicated in July 1953 and the Federal Security Agency was replaced by the Department of Health, Education, and Welfare, whose maroon

and white flag carried the Latin motto, "Hope is the Anchor of Life."

The last of the departmental flags is that of the Department of Health and Human Services, which was created in 1980. Other events in that comparatively recent year were: President Carter's embargo of grain sales to the U.S.S.R. and boycott of the Olympic Games in Moscow; Mt. St. Helens' eruption; President Reagan's sweeping election; and the violent death of ex-Beatle John Lennon.

Why have there been so many flags and organizations? The history of the Public Health Service and the National Institutes of Health, and probably all major federal agencies, teaches that there are gaps between the public's expectations of an agency, the congressional mandate as stated in law, and the agency's own perception of its mission. When these gaps are wide, the resulting pressure is often released by a change in direction, often documented by a new organization with a new name and new flag.

One hundred years ago, the U.S. was a vigorous and booming country. Americans had great expectations for themselves and their nation. There were problems, of course. In the health area there was much disease and death, and conditions in immigrant-crowded cities were particularly hard. There were false advertising claims for products, with health improvement frequently offered to win customers. Soft drinks such as Coca Cola, which came out in 1886, and later Pepsi Cola, originally made health claims. Toilet paper, an American invention of the 1880's, was originally advertised as a means to prevent hemorrhoids. Ironically, the automobile was enthusiastically supported by local governments as the solution to pollution in the streets. On May 26, 1887, a fire destroyed the stable of the Belt Line Car Co. of New York, with a loss of 1,600 horses. Forgotten today was the ubiquitous nature of the horse a century ago and that cities were faced daily with removing thousands of tons of manure from the streets.

The American public has not lost its long-standing interest in health. If anything, public interest in the spread of infectious disease is as great today as it was 100 years ago when Kinyoun set up his laboratory. □

Hyperactive Men Wanted for Study

Men, ages 18-40, are needed for a study of brain activity at the National Institute of Mental Health. Participants must have been diagnosed as hyperactive in childhood by a physician, have no auditory impairments, and be in good health. Childhood school and medical records needed for participation. For more information, contact Ashley Hanahan, 496-9070. □

Calling for Entries To NIH Art Show

NIH will host a juried art show from Sept. 9 through Oct. 20. The art will be judged by Martha Siegel, whose water color show in October 1986 was one of the Clinical Center Galleries' most popular and successful offerings.

Conditions of Entry

- Artist must be an employee or relative of a NIH employee.
- Artist may submit up to 3 pieces of original artwork in any media, *except photography*, and may not exceed 32" x 40" framed.
- There is no entry fee.
- All artwork must be matted and framed appropriately, e.g., suitable for use with a security lock. The security locks only fit Clark or Nielsen style metal framing. For wooden frames, two small holes will be drilled to attach the lock onto the back of the frame. On all frames, please remove the hanging wire and screw eyes.
- Artwork must be labeled with the artist's name, NIH address, title of work, medium, dimensions and top.
- The Clinical Center Gallery is a non-profit gallery where 20 percent of the proceeds go to the Patient Emergency Fund. The price of artwork should reflect the 20 percent donation to the fund; 80 percent will then be paid to the artist.
- Any questions? Call Helen Orem, 496-8113.

Calendar

- July 22 — Artwork must be received at NIH between 9 a.m. and 3 p.m. at the Red Cross desk. Artists will be notified on the jury's decision the week of July 27.
- July 31 — Opening reception at NIH Clinical Center Gallery, 5-7 p.m.
- Sept. 9 — Pick up unsold artwork: 12-3 p.m. at the Red Cross desk.
- Sept. 10 — Customers pick up sold artwork at the Red Cross desk, 9 a.m.-3 p.m.



Dr. Ernest E. McConnell, director of the Division of Toxicology Research and Testing at the National Institute of Environmental Health Sciences, has been elected to a 1-year term as president of the board of directors for the American Board of Toxicology, Inc. He administers that portion of the NIEHS scientific program dedicated to the National Toxicology Program.



Gil Wright of NHLBI recently received the Distinguished Toastmaster Award (DTM), the highest honor in Toastmasters. Of the 2 million toastmasters since 1924, his DTM is the 2,812th. He joins four other NIH toastmasters who have received the DTM: Padman Sarma, Lloyd Herman, Ivadale Ford, and John Belin. Gil is a member of the NIH Toastmasters Club, which meets Fridays at noon in Bldg. 31, Rm. B2C05. Guests are welcome at any time.

Purchase Savings Bonds—Win Prizes

Now you have an extra incentive to save! During this year's campaign, an investment in U.S. Savings Bonds not only gets you a share in America, but also a chance to win any one of a number of valuable prizes.

All that you have to do to be eligible to win is either increase your current bond allotment or sign up for bonds through the payroll savings program.

The prizes include:

- Two roundtrip airline tickets to fly anywhere in the United States;
- Use of a sky suite at the Capital Centre and 18 free tickets for the Ice Capades;
- Dinner or lunch at O'Donnell's Restaurant; and
- Gift certificates from the NIH R&W Association. □

Space Heaters Recalled

The Division of Safety has been informed by GSA of an electrical hazard associated with the KFP 2430 space heaters manufactured by King Electrical Manufacturing.

The blower motor on these forced air heaters is not properly secured to the frame and frequently comes loose during shipment and in handling, causing damage to the electrical contacts. The damaged contacts create a shock hazard.

Please remove these units from service and contact your administrative officer to complete a GSA quality deficiency report.

Mark items with "Safety Alert/Recall Item," your institute, and the name and phone number of a person to contact, and have them sent to the Property Branch in Bldg. 13.

If further assistance is needed, call Wilhelm Schmidt, 496-2346. □

TDD Relay Service May Be Used to Reach NLM

Individuals with hearing impairments who wish to reach the National Library of Medicine may do so during a trial period for a communication relay system.

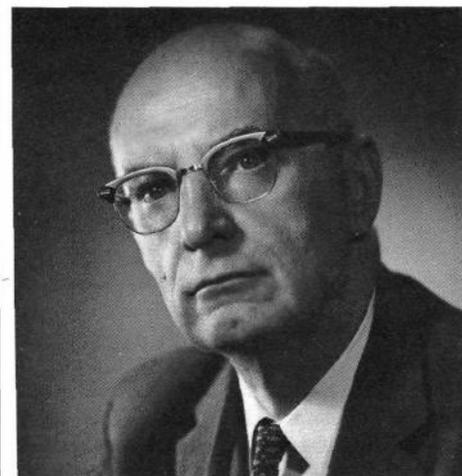
The system allows people to call federal agencies through a telecommunications device for the deaf (TDD) that is operated by the Department of the Treasury. The Treasury operator relays the message to the recipient and assists in relaying a reply.

The TDD relay operator can be reached at (202) 566-2673 for TDD-to-voice calls, and (202) 377-9555 for voice-to-TDD calls. The lines are open from 8:30 a.m. to 5 p.m. The calls are not toll-free. □

Dr. John Keresztesy Dies; Expert in B Vitamins

Dr. John C. Keresztesy, former chief of the Laboratory of Nutrition and Endocrinology (now the Laboratory of Cellular and Developmental Biology), NIDDK, died on Apr. 15. He was 81.

Keresztesy came to NIH in 1946 and later joined what was then the National Institute of



Dr. Keresztesy

Arthritis and Metabolic Diseases as chief of the section on fractionation and isolation in the Laboratory of Nutrition and Endocrinology. His research interests focused on the nature of the naturally occurring forms of folic acid, a B vitamin. In addition, Keresztesy developed the Large Scale Pilot Plant facility, which is the source of bacteria, bacteriophages, viruses, other microorganisms and enzymes that are prepared for NIH researchers who need large quantities of such material to isolate biologically interesting compounds.

Studied B Vitamins

Before coming to NIH, Keresztesy worked for Merck Pharmaceutical Co. where he conducted studies on the isolation and chemical nature of B vitamins. In 1934, he reported the first crystallization of thiamin (vitamin B₁) and in 1938, the isolation and structure of pyridoxal (vitamin B₆). A few years later, he was a major contributor in developing the structure of biotin and pantothenic acid.

Keresztesy is survived by his son John, Jr., of New Jersey and his daughter Meriemma of Boston.

TRAINING TIPS

The NIH Training Center of the Division of Personnel Management offers the following:

<i>Courses and Programs</i>	<i>Dates</i>
<i>Management and Supervisory</i> 496-6371	
Supervising in the Federal Wage System	6/4-8
Communication for Results	6/23-26
The Federal Budget Process	6/3-5
Successful Middle Management	6/9-11
Performance Appraisal Counseling	6/10-12
Report Writing	6/2-4
Conducting Effective Meetings	7/13-14
Interpersonal Relationships	7/15-16
Working with Personal MBTI II	6/19
Why Can't They Hear Me?	6/18
Management Tactics Clinic	9/19
<i>Office Skills</i> 496-6211	
Effective Decision Making	6/8-9
Working with Personal Differences MBTI for Support	6/15-16
Improving Voice and Diction	6/29-30
Introduction to Working at NIH	6/17-18

Adult Education 496-6211
Training and Development Services
Program Orientation 496-6211

June 9 —Bldg. 10, 11th floor Solarium
June 16—Bldg. 31, Rm. B2C07

SHARE TRAINING: An online catalog is available by accessing WYLBUR. Enter SHARE TRAINING.

First time users only, enter:
x fr &ags2ugL.@@share(setup) on file37

Head Injury Support Volunteers Needed

Volunteer assistance is needed for head-injured patients and their families. The Mental Health Association of Montgomery County is providing training for people college age and over who will give individual support and respite time to head trauma victims and their families.

Persons with head trauma are members of a unique group that is sometimes lost in the system. Victims and their families require strong support to cope with the stresses and changes in their lives due to head injury.

Training dates are June 4 and June 6.

Call 949-1255 to volunteer. □

Law Wins Research Honors

Dr. Lloyd W. Law of NCI has been elected an honorary member of the American Association for Cancer Research, the highest honor the association can bestow. It is reserved for distinguished scientists who have made extraordinary contributions to the advance of cancer research.

Law, chief of the Laboratory of Cellular Biology, has contributed to the understanding of factors affecting the development of leukemia and breast tumors in animals, immunogenetics, tumor immunology, and chemotherapy of neoplasms.

A member of AACR since 1941, Law has also received its Clowes Award. He has served twice on AACR's board of directors and has been both vice president and president of the organization. □

Symposium on Vessel Growth

Angiogenesis—development of blood vessels—is the subject of an NHLBI symposium to be held June 3-4 in Masur Auditorium.

Leading researchers will present their views on the state of research on angiogenesis, gaps in current understanding, and anticipated research developments.

The conference is the ninth in a series, "Frontiers in Basic Sciences That Relate to Heart, Lung, and Blood Diseases"; NHLBI sponsors these symposia to help transfer the progress achieved in basic science disciplines to clinical research problems.

For information, contact Dr. Elliott C. Kulakowski 496-6765, or Nancy Cowan 496-6555. □

AIDS and the Workplace—The Facts

Three leading NIH experts will address the NIH community on "AIDS and the Workplace—The Facts," on Tuesday, June 30 from 11:30 a.m. to 1 p.m. in Bldg. 10, Masur Auditorium.

The program, which is sponsored by the Division of Safety, will present information about transmission and infectivity, potential work-related exposure, and coping with the diagnosis of a coworker with AIDS.



Anyone with questions for the speakers—no matter how sensitive—can send them anonymously to the Division of Safety, Bldg. 21, Rm. 1C02. There will be time allotted at the end of the program for additional questions from the audience.

Because space in Masur Auditorium is limited the program will be videotaped and copies will be available through the division. □



Dr. Jonas H. Ellenberg, chief of the Biometry and Field Studies Branch, NINCDS, has recently been elected by the council of the Biometric Society to serve as vice president in 1987 and 1990 and president in 1988 and 1989. The 40-year-old international society is devoted to the advancement of biological science through the development and dissemination of effective mathematical and statistical techniques. It has more than 7,000 members worldwide and publishes the journal Biometrics and the Biometric Bulletin.



'Everything in Moderation'

Moderate Exercise May Be Better Than the Long Run

By Leslie Fink

Highly trained male runners appear to produce certain stress hormones in amounts similar to those present in people who have psychiatric depression or the eating disorder anorexia nervosa. While such high hormone levels may be the body's way of adapting to long-term, rigorous exercise, they may also reflect a "specific personality profile in highly trained athletes."

According to a study published in the May 21 issue of the *New England Journal of Medicine*, runners who ran more than 45 miles a week produced chronically high blood levels of the stress hormones adrenocorticotrophic hormone (ACTH) and cortisol—two hormones known also to be elevated in patients with depression or anorexia nervosa. The runners also responded to injections of a third hormone, corticotropin releasing hormone (CRH), the same way people with these psychiatric disorders do. Moderately trained runners, on the other hand, had normal ACTH and cortisol levels, responded normally to added CRH, and appeared to tolerate physical stress better than did nonexercisers.

"One possibility for the results is that strenuous exercise changes a person's hormone system so it produces more ACTH and cortisol," says Dr. George Chrousos, the NICHD endocrinologist who, along with Dr. Anton Luger, headed the study. "Another possibility is that these individuals have a personality profile similar to people who have anorexia nervosa. They may be compulsive about exercise, diet, and body image."

Chrousos and his colleagues from NICHD, the Uniformed Services University of the Health Sciences, and the National Institute of Mental Health studied blood hormone levels in three groups of men: those who got no exercise, "moderately trained" runners who ran 15 to 25 miles a week, and "highly trained" runners who ran more than 45 miles a week. They found that, even when the highly trained runners were not exercising, they had higher-than-normal levels of ACTH, which is produced by the pituitary gland, and cortisol, which is produced by the adrenal glands. Sedentary and moderately trained subjects at rest had ACTH and cortisol levels within the normal range.

All subjects were also given injections of CRH, a brain hormone produced by the hypothalamus. All three hormones, CRH, ACTH, and cortisol, make up a sensitive feedback sys-

tem that controls when and how much of each hormone is produced. Alterations in the production centers of any of these hormones can throw off the rest of the system and cause abnormal amounts of hormone to be secreted.

Sedentary and moderately trained subjects responded normally to the CRH injections; the added CRH in the bloodstream caused the appropriate increase in ACTH and cortisol levels in these men. But in the highly trained runners, CRH injections produced the opposite effect. Despite the extra CRH, those men produced below-normal amounts of ACTH and cortisol, suggesting that the part of the feedback system located in the brain is somehow altered in these subjects. Chrousos and colleagues at NIMH found similar results in a different study in which they gave CRH to depressed or anorectic patients.

"Our highly trained group may have included subjects whose personalities had anorectic or depressive components," the report concludes. These findings, the authors continue, agree with a previous report suggesting that "compulsive running is an analog of anorexia nervosa."

The researchers also studied the subjects' hormone levels during treadmill exercise. Such exercise was much less effective at stimulating hormone production in moderately and highly trained athletes than in the nonexercisers. Thus, the report says, "adaptation to regular aerobic exercise is associated with a reduced response" of the hormone system to stress. "The more fit the subjects were, the more physical stress they could tolerate," says Chrousos. "They didn't produce raised levels of the hormones unless they *really* exercised."

Although the short-term effects of heavy exercise may help athletes tolerate stress better, the permanent effects exercise has on the hormone system may, in the long run, be harmful. High levels of brain and pituitary hormones could account for fertility problems known to occur in male and female long-distance runners, says Chrousos. So he suggests exercise in moderation may be the virtue. "The moderately trained subjects were totally normal. They can still take stress better, and they respond normally to CRH injections. The take-home lesson is what the ancient Greeks said 2,500 years ago: 'Do everything in moderation.'" □

Koop Discusses Corps' Revitalization

By Blair Gately

Citing the need to "prevent the demise" of the PHS Commissioned Corps, U.S. Surgeon General C. Everett Koop outlined his revitalization plan for the corps during a recent visit to NIH.

He told a packed audience in Masur Auditorium that "steps for revitalization had to be taken quickly" in order to "ensure the longevity of the corps."

Koop outlined the need for "a maximally fit and capable" corps and said he planned to improve its "effectiveness, efficiency, and productivity." He said there would be changes in personnel policies and that an additional career development track—health regulation—would be added to those already in existence. They are: clinical, epidemiology, management, and research.

In April, Koop launched the revitalization program to restore the corps' "sense of mission." In a letter to its members, he said they should expect to be transferred more frequently during their careers. He also instructed members to wear their uniforms.

700 Employees Affected

Koop met with NIH Director Dr. James B. Wyngaarden and institute and division directors to discuss their concerns prior to his address to NIH employees.

In a recent memo to Koop, Wyngaarden had expressed concern that many of the changes designed to address the career development of officers "seem destined to be detrimental to the careers of NIH biomedical researchers and thus to the NIH itself."

Wyngaarden's memo said, "The elements of greatest concern to the institute and division directors are the proposed limitation of length of careers through mandatory retirement, assignments that may require career and/or geographic moves, and directed wearing of the uniform in a setting where it is neither traditional nor useful. . . ."

The corps currently has more than 5,300 members on active duty. A little more than 5 percent of NIH employees (about 700 people) belong to the group. □