

The NIH Record

Too Much Iron Arouses IRE

Ironies of Life: Cells Require an Element That is Both Good and Evil

By Leslie Fink

By a quirk of nature, cells are designed to rely for their very survival on a chemical element that can kill them. Now, scientists have uncovered a small piece of genetic material that helps cells solve their dilemma. These genetic regions promise to give scientists a new understanding of how the activity of certain genes is controlled, and they may lie at the root of a common hereditary disease.

For a cell to depend on this element, iron, is not far-fetched, since iron is the second most abundant element in the Earth's crust. But because iron reacts strongly with cellular components, too much can poison a cell.

"Our bodies absolutely need iron," says Dr. Richard Klausner, chief of NICHD's Cell Biology and Metabolism Branch. All cells require the element to grow, divide, and carry out cellular processes. "But because iron is both essential and deadly, the amount a cell uses must be closely controlled."

In a recent issue of *Science*, Klausner and his NICHD colleagues report identifying a segment of the genetic material ribonucleic acid (RNA) that lets cells know when too much

iron threatens their survival. Dubbed "iron responsive element," or IRE, this genetic switch responds to large amounts of iron by signaling for the production of an iron-neutralizing protein called ferritin. But the IRE is unusual because its working form resides on RNA. Genetic regions that control protein production in higher animal cells have so far been found to function only as a part of DNA.

Proteins are usually manufactured in three general steps, starting in the cell nucleus when a gene (made of DNA) is turned on. Next, the two strands of DNA are "transcribed" into RNA. Finally, RNA moves out of the nucleus to hook up with protein-making machinery in the cytoplasm, where it pieces amino acids together into proteins.

RNA-based control of protein synthesis has already been found in bacteria and yeast, and has been proposed in higher animals. But IREs represent the first example found in humans of genetic elements made of RNA that regulate the action of a gene.

When too much iron threatens a cell's survival, IREs come into play, signalling the

protein-synthesizing apparatus to make more of the protective protein. RNA stockpiled in the cytoplasm is then made available to take part in the ferritin-making process. But when iron levels are low, IREs halt the process and stored RNA supplies are replenished. IREs may also regulate the production of proteins besides ferritin that help cells use iron.

Defects in the way a cell responds to iron may underlie the common genetic disease hemochromatosis, which affects about 1 in 400-800 Americans. Cells from people with hemochromatosis are unable to prevent the buildup of lethal amounts of iron. Klausner and his colleagues have found that snipping out certain segments of an IRE wipes out its ability to trigger ferritin production when iron levels are high. "IREs explain the mechanism by which the amount of ferritin is regulated," Klausner says. "They provide us with a good place to begin looking for the genetic defect in hemochromatosis." Klausner and his colleagues can now begin to study how well IREs

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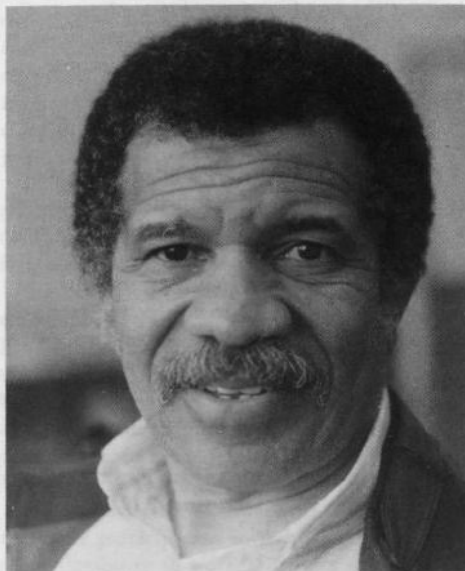
'He Amazes Me'

Employee's Son Progresses in Aftermath of Accident

Four years after a skiing accident left him paralyzed from the neck down, Dennis Butler has graduated from college and landed a job at Washington's National Rehabilitation Hospital.

Dennis is the 23-year-old son of Charles Butler, children's recreation supervisor at the Clinical Center. When he was 19 and a sophomore at Williams College in Massachusetts, he crashed into a metal light pole while skiing. A member of the college ski patrol, Dennis was off-duty and schussing with friends when the accident occurred on Jan. 25, 1984. He was flown by air ambulance to George Washington University Hospital after the accident and spent 7 weeks in traction. Then he went to Craig Rehabilitation Hospital in Denver for 6 months of intensive rehabilitation therapy. Immediately upon returning home from Craig he resumed college studies at George Washington University, and eventually returned to Williams to complete his degree in German last summer.

"He graduated only a year late, which I think is pretty good," said his father. "It took



Charles Butler

me 4½ years to graduate and nothing happened to me."

Dennis' struggle has left his father both amazed and extremely busy.

The Butlers' day begins at 5 a.m. when Charles wakes Dennis, feeds him breakfast and dresses him for work. This after having gone to bed after midnight and arisen several times in the night to be sure Dennis is comfortable; since he can't use his limbs, he can't add or remove covers in the night.

"He doesn't take a lot of sleep, and I'm learning not to," said Charles.

At 8:30 a van arrives to take Dennis to a job as research assistant at the National Rehabilitation Hospital. Though he is confined to a wheelchair, which he operates with a chin control, Dennis is proficient in the use of computers. Using a mouthstick to strike the keys, he is currently studying how to organize an HMO for disabled people.

"Anytime he does something where you have to dig and read and do research, he's

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from patients with hemochromatosis work and to compare their structures with those from healthy people.

In the biotechnology industry, scientists can use IREs to turn protein-producing genes in cell cultures on and off at will, simply by exposing the cells to different amounts of iron. By attaching synthetic IREs to a gene, scientists can regulate how much of a medically useful protein the gene produces. So far, IREs appear to be more reliable and easier to control than are other genetic on-off switches currently used in biotechnology. "As far as we can tell, IREs will work with any gene," says Klausner. □

Spectrophotometer Safety Alert

The Division of Safety is alerting all users of atomic absorption spectrophotometers (AAS) of a possible explosive hazard associated with liquid acetone. The problem occurs when liquid acetone (already in the cylinder or which condenses in the height pressure regulator) is carried into the AAS. The following procedures describe how to help minimize this risk.

After hooking up a new cylinder of acetylene, let it stand overnight before use. This allows for temperature equilibration and for any liquid acetone to settle to the bottom of the cylinder. Cylinders should be changed when approximately 75 percent of the gas has been used.

Alternatively, users can order a purification device (such as the Matheson 450 purifier with Model 454 activated charcoal cartridge, or equivalent) and have it installed in their AAS.

Please call Wilhelm Schmidt (496-2346) in the Occupational Safety and Health Branch for further assistance. □

Working Safely With HIV

The Division of Safety's seminar, "Working Safely with HIV in the Research Laboratory," will be offered again on Tuesday, Jan. 19 and Monday, Feb. 22 at 9:30 a.m. in Wilson Hall, Bldg. 1.

All NIH personnel who work with HIV or other human retroviruses, and who were unable to attend an earlier session, should attend one of these programs. Pre-registration is not required.

For further information call the safety operations section, Occupational Safety and Health Branch, 496-2346. □

Databases Available for Testing

The NIH Library has been selected to participate in testing of a new online service, BIOSIS Connection. The new service from Biosciences Information Service gives researchers direct access to a variety of databases in the biological sciences.

Six databases are now available for testing, and four more are under development.

On Monday, Jan. 25, a Biosciences Information Service representative will instruct NIH staffers who wish to use the system in the NIH Library during the test phase. There will be no connect charge during the test phase.

The six life science databases now available are—

- *Bioexpress* contains 12 weeks of reference citations to journal articles, updated weekly.
- *BioMeetings* is a 12-month file of hard-to-find references to research presented at meetings and symposia, updated monthly.
- *BioBook* presents synopses and publication information including individual chapter references of recently published books, updated monthly.
- *BioPatents* consists of an 18-month file of

references to recently granted U.S. patents in biotechnology, biomedicine, agriculture, and food technology, updated semimonthly.

● *Forthcoming Events* announces coming meetings, seminars, symposia, and special events of interest to life scientists.

● *Serial Sources* contains information on more than 16,000 life science journals including journal name, publication frequency, and publisher information.

Life sciences databases under development are—

● *AIDS Database*: 4-year backfile and monthly updates of citations, with keywords, concerning AIDS research.

● *Jobline*: announcements of employment opportunities including academic and industrial openings.

● *BioThesis*: references to current theses.

● *Forthcoming Publications*: announcements of upcoming books, journals, and other special publications.

To register for either the morning class or afternoon class on Jan. 25, call Elsie Cerutti or Phyllis Mamayet, 496-1156. Space is limited. □

FAES Stipends Available

FAES is administering special funds known as Wellcome Stipends to postdoctoral level guest workers at NIH.

Depending on the total funds that are available and the number of eligible applicants, a maximum of \$3,600/year (\$300/month) may be granted to each individual as an income supplement to a maximum total family income of \$15,000/year plus \$1,000 for each dependent including spouse.

The selection committee will consider the scientific merit of the research to be conducted as well as need and professional qualifications of the applicant.

Awards will be made twice a year, Mar. 31 and Sept. 30 for the 12-month period beginning Apr. 1 and Oct. 1, respectively.

Applications for 1988 must be received in the FAES office on or before Feb. 26 for the March awards and on or before Aug. 26 for the September awards.

Application forms are available in the FAES business office, Bldg. 10, Rm. B1C18 or by calling 496-7976. □

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. Use of funds for printing this periodical has been approved by the director of the Office of Management and Budget through September 30, 1988.

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Porter Named Deputy Director of NINCDS

Dr. Roger J. Porter, an internationally known expert in epilepsy research, has been named deputy director of the National Institute of Neurological and Communicative Disorders and Stroke.

Porter will assist NINCDS director Dr. Murray Goldstein in overseeing the institute's programs, which include a major program of fundamental research in the neurosciences and substantial research efforts on stroke, trauma, epilepsy, Alzheimer disease, multiple sclerosis, Huntington's disease, Parkinson's disease, and disorders of speech, language and hearing.

He has a long affiliation with the institute. A 1968 graduate of Duke University School of Medicine, he completed his internship at the University of California, San Diego, and joined NINCDS in 1969 as staff associate in the section on epilepsy. Following residency training in neurology at the University of California, San Francisco (1971-1974), he returned to the institute as senior research associate in the extramural Epilepsy Branch.

Porter became chief of the Epilepsy Branch in 1979, and built a major national program for the development of antiepileptic drugs. In 1984 he was named chief of the Medical Neu-



Dr. Roger Porter

rology Branch in the NINCDS Division of Intramural Research—the position he held until his new appointment.

He is a diplomate of the National Board of Medical Examiners and is certified in neurology by the American Board of Psychiatry and Neu-

rology; he is also certified by the American Board of Qualification in Electroencephalography. Porter is also a consultant-lecturer in neurology at the National Naval Medical Center, and clinical professor of neurology and adjunct professor of pharmacology at the Uniformed Services University of the Health Sciences.

Porter holds membership in major neuroscience societies. His extensive publications and scientific presentations on seizure disorders include the book *Epilepsy: One Hundred Elementary Principles*, and the teaching film "How to Recognize and Classify Seizures." He is an editor of *Status Epilepticus: Mechanisms of Brain Damage and Treatment*; *The Epilepsies*; *Neurologic Clinics: Epilepsy*; *Basic Mechanisms of the Epilepsies: Cellular and Molecular Approaches*; and *Current Problems in Epilepsy: New Anticonvulsant Drugs*.

His awards include the Fulbright Distinguished Professor Award and the PHS Commendation Medal and Meritorious Service Medal.

Born in Pittsburgh, he was raised in St. Petersburg, Fla., and received his B.S. from Eckerd College, St. Petersburg, in 1964.—Kathy Kranzfelder □

Tony Brown and Nikki Giovanni to Keynote King Program

NIH will commemorate the birth, life, and legacy of Dr. Martin Luther King, Jr., on Friday, Jan. 22. A program will be held in Masur Auditorium, Bldg. 10, from 11:30 a.m. to 1 p.m.

The theme of this year's program is "Mak-



Tony Brown

ing the Dream a Reality" and will feature as the keynote speaker Tony Brown, journalist and commentator of the nationally syndicated television program, "Tony Brown's Journal." Brown will focus his remarks on the contributions that King made to humanity and their impact on society today.

Following the keynote address, a poetic tribute to King will be made by Nikki Giovanni, writer, recording artist, and lecturer.

Special shuttle service will be provided for employees at the Westwood, Federal, and Landow (or Executive Plaza) Bldgs.; a schedule of departure times will be posted in these buildings. Sign language interpretation will also be provided; if accommodations for other disabilities are needed, please contact the Division of Equal Opportunity, 496-6301.

Supervisors are encouraged to support employee participation in this program and to allow flexibility in work schedules so that employees may attend this event. This program is sponsored by the NIH Division of Equal Opportunity. For further information, contact Irene Peyton, 496-6301.



Nikki Giovanni

Diet Workshop Classes Resume

New Diet Workshop sessions will begin on Monday, Jan. 11, from 12 noon to 1 p.m. The cost for this 6-week course is \$48.50.

For further information call 496-1333 or 468-3438. □

BUTLER

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happy," said Charles. "He would spend weeks preparing his college papers."

While Dennis is at NRH, where he also receives vocational training and outpatient care, his father is at NIH, helping pediatric patients make the most therapeutic use of their leisure time.

"It's ironic that I had worked 15 years with handicapped people and didn't know what to do when suddenly I had a handicapped son," he said.

Adjusting to the needs of a quadriplegic son has required renovation of Charles' house and lifestyle. He has just finished adding a bedroom and bath on the first floor for Dennis; the basement will be Dennis' workshop, containing the personal computer on which Dennis keeps "everything he does"—bank transactions, research, letters, addresses and phone numbers. Still to be determined is the location of his beloved stereo. An elevator due to be installed this month will give Dennis access to the basement and first floor of his father's house.

"The renovation took up half my yard," said Charles. "But I don't mind because that's just so much grass I don't have to cut."

Another facet of the renovation is construction of an apartment in the basement for a live-in attendant. Currently, an attendant comes weekend evenings for a few hours, relieving Charles of the duties of emptying Dennis' leg bag (where body wastes collect) and making sure that Dennis stays warm and comfortable. Daily range-of-motion exercises to preserve muscle tone are also essential—though Charles wryly insists that "what happens is, I do all the work."

Lack of quality attendant care has been the bane of the Butlers' existence in the 4 years since Dennis' accident. Last winter, for instance, an attendant at college failed to show up one day. Dennis became overheated and had to be hospitalized for a few days.

"It was early on a Sunday morning," Charles recalls. The attendant who was supposed to remove Dennis' covers never appeared. That afternoon, a second attendant arrived to find Dennis conscious but barely coherent.

"There was an alarm system in Dennis' room at college but it wasn't working that night," said Charles. Dennis went through about a dozen attendants during his senior year in college. ("Several times he was left in bed all day. Several times he never got to bed.") Since he has been home, half that many have quit. The only truly reliable help he has is his father.

"My big worry is if something happens to

me," said Charles, whose concerns aren't so much personal as financial.

"Adequate care is hard to come by and expensive," he said. "At \$7 to \$10 an hour, it isn't cheap."

Charles counts himself lucky that his son's attendants have never assaulted Dennis. "His boss at work (Drew Batavia, a highly accomplished lawyer who is also a quadriplegic as the result of an accident) has been robbed by attendants," he noted.

Dennis' job at NRH is tied to a yearlong grant that may not be renewed. "He would really like to get into international marketing," says Charles. "He took some economics courses during his last year in college and got interested in the stock market."

Charles recognizes the importance of work to his son's health, even though his condition has remained essentially unchanged since the accident.

"It's very important for him to be up and out to work rather than sitting around wondering what's next," he said.

Never an especially social person, Dennis contents himself with rock and roll and classical music ("He likes it nice and loud."), reading (in both English and German) and learning more about computers.

"He doesn't go out much, but his friends drag him out occasionally," said Charles. "Once he gets in from the cold, he stays where it's warm. He's very sensitive to temperature and needs a lot of warmth."

Just before this past Christmas, Charles expressed relief that, for the first time in 3 years, he and Dennis would spend the holidays away from the snows of Massachusetts. In closing, Charles made the same evaluation of his son as he did in stories about Dennis that appeared in the Clinical Center newsletter twice since the accident: "His attitude has been very good through the whole process. I'm amazed. He keeps pushing and keeps struggling."

Not a bad New Year's resolution for anyone.—Rich McManus □



Dr. Richard L. Mowery has been appointed chief of the newly formed Collaborative Clinical Vision Research Branch of the National Eye Institute. He will provide leadership in the direction and administration of all NEI-sponsored clinical trials and epidemiological research funded by grants, contracts, and cooperative agreements. He will also work directly with investigators interested in starting new clinical studies to assist in the development of experimental designs, protocols, and study procedures. Mowery was previously a health scientist administrator in the Clinical Trials Branch of NEI's Biometry and Epidemiology Program.

NIH Singles' Open House

The Fun For One Club, also known as the NIH Singles, will be hosting an Open House on Wed., Jan. 13, from 4 to 7 p.m. in the Clinical Center atrium.

This is the beginning of its annual membership drive and all single people on the NIH campus who may be interested are invited for refreshments and conversation.

The one-year-old club has an active social committee and arranges informal get-togethers. Once a month it sponsors a dinner-of-the-month at a local restaurant and a Happy Hour, usually at the FAES House on Old Georgetown Rd.

During the past year the group also held a pot luck football party, wine & cheese social, Souper Bowl party (home-made soup was the main attraction here along with a football game), a ride on the C&O Canal barge, a pool party, Sunday brunch at the Hyatt in Bethesda, several card parties, and movie nights at the Bethesda Cinema & Draft House.

You do not have to work at NIH to join the group, but you must be a member of the R&W Association. For more information call Judy, 496-6149. □

Mothers and Infants Needed

The section on child and family research, NICHD, seeks mothers and their first-born, 4-month-old, healthy infants as volunteers for a study of early mother-infant interaction.

Biological, adoptive, employed, non-employed, younger and older mothers are needed. Volunteers will be visited one time for 2 hours at home. At that time, a videotape will be made of the baby and his or her typical activities. For further information, call Ann Fox or Joan Suwalsky, 496-6832. □

Biotechnology Expert Joins NIGMS Staff

Dr. Luther S. Williams is becoming a familiar presence wherever the future of biotechnology is being discussed, whether as a participant in meetings of NIH officials, as a delegate at joint meetings of federal agencies concerned with biotechnology, or while helping to further the National Institute of General Medical Sciences' goal of supporting basic research into new biotechnologies. Named as special assistant to the director for biotechnology, Williams came to NIGMS on Sept. 1.

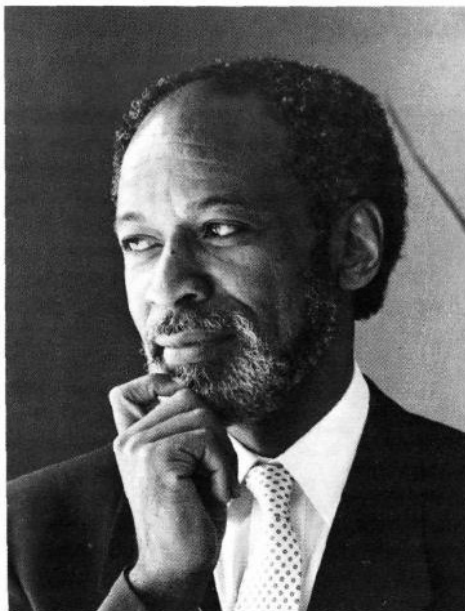
Although he is a new employee of the federal government (and is awed by its complexity, he says), Williams has had many contacts during the past 20 years with NIH as a whole and NIGMS in particular. He received NIH support during his predoctoral studies at Purdue University and his postdoctoral work at the State University of New York at Stony Brook.

Williams has also had NIH support for his studies in microbial physiology and molecular biology since beginning his research career in 1970. He has reviewed many requests for research funds from scientists around the country as a member of several NIH study sections and review committees and subsequently of the National Advisory General Medical Sciences Council.

In addition to his experience as a researcher and reviewer, Williams has also been both a teacher and an administrator at several academic institutions, including Purdue, Washington University in St. Louis, and Atlanta University (where he was president from 1984 until 1987). Rounding out this varied background is his participation in the NIH Recombinant DNA Advisory Committee and his membership on the advisory board of the U.S. Office of Technology Assessment, where he considered the potential impacts of new biotechnologies on society.

His multifaceted career makes him uniquely qualified for his latest challenge—advising the director of NIGMS and other NIH officials as to the best course to take in supporting both biotechnology in general and an initiative to sequence the complete human genetic endowment in particular. He says his task requires "listening to many opinions, reading, and synthesizing" before he offers his advice to the director and other policymakers. Those who are considering the future of biotechnology are "defining the issue, sketching a broad outline of both the problems and possibilities of new technologies, and attempting to set a reasonable course for the future," says Williams.

When he is not thinking about the future, Williams spends much of his time gardening and reading. He especially enjoys science fic-



Dr. Luther Williams

tion. Before leaving Atlanta, he was involved in a characteristically diverse range of activities, including serving on the boards of the Butler Street YMCA, the Atlanta Zoological Association, and the Metropolitan Atlanta United Way. He plans to become involved in similar organizations in Montgomery County.—Anne A. Oplinger □

Fitness Center Winter Classes

The Fitness Center's winter session (12 weeks) is now under way.

Classes are as follows:

Low-Impact Quik Fit: Nonjumping, aerobic exercise; Tu/Th: 11:30 a.m.-12:15 p.m.

Quik Fit: Nondance, moderate level aerobic exercise; MWF: noon to 12:45 p.m.; Tu/Th: 6-7 p.m.

Advanced Quik Fit: Nondance, high level aerobic exercise; MWF: 6-7 p.m.

Alive!: Total body workout through choreographed dance; MWF: 6-7 p.m.; Tu/Th: 5-6 p.m.

Register in person at NIH Fitness Center, Bldg. T-39. For further information and a schedule of fees, call 496-TRIM. □

Dodge Named Special Assistant to NICHD Director

Dr. Philip R. Dodge, an internationally known neuroscientist, has been appointed special assistant to the director for mental retardation research in NICHD.

NICHD is the primary focus at NIH for research concerned with maternal and child health. Mental retardation research at the institute is supported mainly through the Mental Retardation and Developmental Disabilities Branch. In his new position, Dodge will work with the branch to implement a five-year plan for research and training in mental retardation and developmental disabilities.

He joins NICHD from the Washington University School of Medicine in St. Louis, Mo., where he was chairman of the department of pediatrics from 1967 to 1986 and currently holds appointments as professor of pediatrics and professor of neurology.

In announcing the appointment, Dr. Duane Alexander, director, NICHD, said, "I am excited about having someone of Dr. Dodge's outstanding reputation here to work with us in developing this important program and



Dr. Philip R. Dodge

look forward to the new perspectives that he will share with us."

A member of the American Neurological Association and the American Pediatric Society, Dodge is board certified in neurology and child neurology by the American Board of Psychiatry and Neurology. He is also the author of more than 150 scientific articles and book chapters on a wide range of neurological disorders. He has served on the editorial boards of several pediatric and neurological journals.

He has previously served the NICHD as a member of its Mental Retardation Research Committee and its National Advisory Child Health and Human Development Council. □

Career Opportunities Abound

Intern Program Accepts Applications

Are you interested in management careers in administrative services, budget, grants and contracts, personnel, program planning, or public information?

The NIH Management Intern Program is now accepting applications for FY 1988 from Jan. 6 through Feb. 19. Past interns have come from a variety of backgrounds, such as nursing, biology, secretarial and chemistry.

The program provides specialized training for selected individuals to prepare them for careers in administrative management. The program permits up to 15 months of rotational job assignments, supplemented by formal and informal training. Upon completion of the program, interns are qualified for positions such as administrative officer, budget analyst, grants management specialist, personnel management specialist and others.

Graduates have been and continue to be a primary source for future senior management positions at NIH.

Application forms became available Jan. 6 in the NIH Training Center, DPM, Bldg. 31, Rm. B2C31. Applications must be complete and received by Feb. 19.

Information on the program, application, and selection process will be provided at the following sessions:

Date	Building/Room
Jan. 12	31/Conf. Rm. 4
Jan. 13	Humphrey/Rm. 703A
Jan. 14	Gerontology Research Center/1-117
*Jan. 14	10/2C116*5-6 p.m.
Jan. 15	Westwood/428
Jan. 19	Parklawn/Conf. Rm. H
Jan. 20	36/1B13
Jan. 20	Federal/B1-19
Jan. 21	10/9S237.

Sessions will be held from 11 a.m. to 12 noon except where noted by the asterisk.

To be eligible at the GS-5 level, you must:

- Be a DHHS employee and have worked at DHHS for 1 year immediately prior to Feb. 19;

- Be willing to work full-time;
- Be at least a GS-5 level employee;
- Possess a bachelor's degree from an accredited college or university or

- Have 3 years of experience in administrative, professional, technical, investigative, or other responsible work that has provided a general background for the position; or

- Any time-equivalent combination of such



John Mahoney, NIH associate director for administration, is pictured with the 1987 NIH Management Interns and the 1987-89 Presidential Management Interns. Standing are (l to r) Virginia Daily, Victoria Putprush, Patricia Turner, Abby Baum, Kathleen Lively. Seated are (l to r) Jane Daye, Pamela Lokken.

education and experience.

At the GS-7/GS-9 levels, employees must:

- Meet the requirements for GS-5; and
- Have additional education or experience.

For more information, call the NIH Training Center, 496-6211. □

Three Occupations Targeted For Enhanced Staffing

The NIH Training Center announces a new career development opportunity—the Career Curricula Program. The program is designed to meet NIH staffing needs while providing NIH employees in non-professional job series with an enhanced opportunity for career change and advancement.

Through a combination of academic advisement, training (taken on participants' own time) and informal occupational mentoring, the program's aim is to prepare participants to compete for professional entry-level jobs in occupations targeted for training.

Three occupations are targeted for training in the 1988 Career Curricula Program: administrative assistant/officer, contract specialist, and personnel management specialist.

This new program is directed by the Technical Advisory Board, a group of senior

managers selected by the NIH associate director for administration. Annually, the board will identify occupations for training based on NIH staffing projections. The NIH Training Center, Development and Training Operations Branch, directs the day-to-day operation of the program. Cost of tuition and materials is paid by the NIH Training Center Career Curricula Account.

Interested employees must meet all basic eligibility requirements to apply. If you are a GS-8 or below (or federal wage grade equivalent), are employed in a one-grade interval job series and have a high school diploma but do not possess a bachelor's degree, then you may be eligible to apply.

Application packets are available from the Development and Training Operations Branch, DPM, Bldg. 31, Rm. B2C31. To be considered for the program, applications must be completed and received by Feb. 19.

Information on the program, eligibility requirements, application and selection process will be discussed at the following sessions from 11 a.m. to 12 noon:

Jan. 21, Federal Bldg., Rm. B1-19
Jan. 26, Bldg. 10, Rm. 2C116
Jan. 28, Westwood Bldg., Rm. 428
Feb. 2, Blair Bldg., Rm. 110
Feb. 9, Bldg. 31, Conf. Rm. 4 □

ound at NIH in 1988

Program Helps Workers Find New Careers

The Career Curricula Program is an excellent opportunity, made possible through the DHHS Career Opportunities Training Agreement, for employees in nonprofessional jobs to gain access to entry level professional jobs.

The 1988 program will offer the opportunity to become an administrative officer, a contract specialist, or a personnel management specialist.

Applicants go through a thorough evaluation and screening process and take up to 30 credit hours of relevant college level courses. Participants take courses on their own time and must finish within 3½ years. NIH pays for tuition and books. Trainees continue working in their original positions until they have found an entry level professional position.

In addition to taking courses, the trainee selects a "mentor"—an NIH manager or official who works in the chosen career field. The mentor provides guidance, and may also introduce the trainee to activities where he or she can learn more about the occupation.

Since the program is now more than 2 years old, there are already successful graduates, three of whom are profiled here: Veronica Smith, who was recently selected for a contract specialist position in NIDR, often felt she was performing a juggling act between her course work and active motherhood, but she thrived on it. She applied for the program as one strategy in her campaign to move from the secretarial field into a professional position.

Smith believes the mentoring system is especially valuable because the trainee is exposed to the right path for reaching his or her goal.

Darlene Bayne moved out of the pharmaceutical field, where she was a technician, into a budget assistant job. She also began taking accounting courses at the University of Maryland. During her 2 years in the program, Bayne took a variety of courses at the rate of three per semester while working full time.

Joyce Seawright took a major step forward when she overcame her reluctance to try for a "professional" position, applied, and was selected for the program in 1987. Seawright firmly believes that her show of interest and initiative helped prompt her to obtain a personnel management specialist position at the Clinical Center.

She began her career at NIH as a "stay-in-school" (a program that allowed her to work



Veronica Smith

part-time while completing her basic education).

"Today I am growing beyond my limitations and insecurities," she said. "All my career I had moved very cautiously and slowly from one thing to the next, always being sure I could do the next step well before venturing out ... (until) I finally understood and believed that if I did something long enough and hard enough, it would work. I could do it!"

Seawright offers this advice for potential applicants: find out as much as you can about the



Darlene Bayne

process; let your supervisor know you want to advance; and meet and talk with as many people in the field(s) that interest you as you can, building contacts in various organizations. She notes that the support of one's supervisor can make a great deal of difference, as was the case with her supervisor, Sheila Johnson.

Applications are now available for the Career Curricula Program from the Development and Training Operations Branch, NIH Training Center, Bldg. 31, Rm. B2C31. You may apply if you:

- are in grade GS-8 or below;
- are employed in a one-grade interval job series;
- possess a high school diploma or GED certificate of equivalency and do not have a bachelor's degree;
- have been employed at NIH under a career or career-conditional appointment for at least 1 year and work at least 32 hours per week; and
- could, at the completion of this program, be qualified by education and/or experience for a GS-5 or GS-7 entry level position in a two-graded interval job series.

For further information, contact Edith Pruden, 496-6211.—Diana McClelland □

NCI Career Program

The NCI Administrative Career Development Program will be announced Jan. 18-Feb. 19.

The program is designed for individuals who possess a strong capacity for leadership and have demonstrated exceptional potential to assume a management position in public administration. It provides an excellent career development opportunity for individuals pursuing a career in an administrative discipline or for individuals in administration who wish to broaden and enhance their career opportunities.

ACD interns receive rapid and balanced preparation through rotational assignments, formal and informal training. Rotational assignments cover specialty areas of: financial management, personnel management, public administration, contract and grants management, information management and systems analysis, management analysis, general administration, and equal employment opportunity. The length of the ACD Internships is traditionally 2-3 years, and is based on individual interests, previous experience, and education. Upon successful completion of the program, interns are eligible for administrative management positions at NCI.

To be considered for the program, appli-

NCI

(Continued from Page 7)

cants must meet the following basic eligibility requirements:

- Be an HHS employee and currently hold a career or career conditional appointment at the GS-7 through GS-12 levels;
- Occupy or be willing to accept a full-time position, and
- Meet the basic eligibility requirements for the position as defined in the U.S. Office of Personnel Management X-118 Qualifications Standards.

Candidates who must request a change to lower grade to enter the program may be entitled to a 2-year retention of salary.

NCI administrative and personnel staff will discuss the program, and the application and selection processes at the information sessions listed below. Application packages may also be obtained at these sessions: Jan. 19, 1-3 p.m. Wilson Hall, Bldg. 1. Jan. 27, 1-3 p.m. Conf. Rm. 6, Bldg. 31

Questions or requests for application packages should be addressed to the NCI Personnel Management Branch, Bldg. 31, Rm. 3A35, 496-0493. □



Dr. James B. Wyngaarden purchases R&W membership card #1 and signs the NIH Health Century book while (from l) Rowena Ahern, R&W 1st vice president, Alan Moore, R&W president, and Randy Schools, R&W general manager look on.

Think Snow!

The NIH Ski Club is planning a day trip to Blue Knob on Friday, Feb. 26. Cost is \$31 per person, which includes bus transportation and lift ticket.

The bus will depart from Bldg. 31C parking lot at 6 a.m.

Sign up at the R&W Activities Desk, Bldg. 31, Rm. B1W30. □

NIEHS Scientist Helps Organize Conference

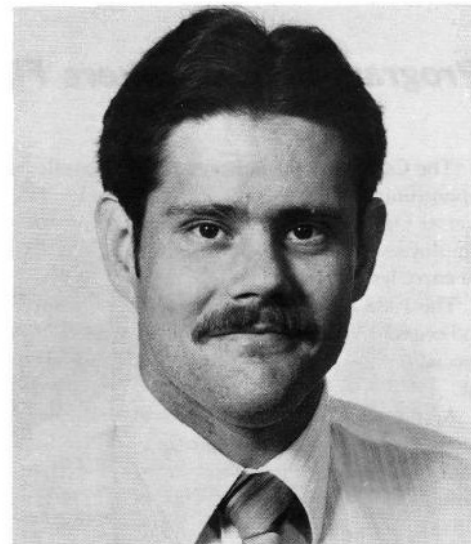
With two doctorates from Michigan State University and scores of publications to his credit, Dr. Craig A. Johnston, a senior staff fellow at the National Institute of Environmental Health Sciences, personifies the phrase "promising young scientist."

Now Johnston, 32, has an opportunity to make an important contribution to international understanding in the biological sciences. He has been selected to be a member of the scientific organizing committee for an international meeting, "Endocrinology—Under 35," for which all of the committee and invited speakers will be under 35 years of age. The meeting will be in Florence, Italy, in May 1988.

In addition to taking an active role in arranging the scientific presentations for the meeting, Johnston has been asked by the organizer and scientific secretary of the international symposium to be coeditor of the published proceedings of the meeting, which have been accepted in advance by an internationally recognized publisher.

He has also been asked to serve as cochairman of the meeting's session on "Advances in Neuropeptides," at which he will deliver a paper, "Neuropeptide Mediated Hormone Secretion: Role of Neurointermediate and Anterior Pituitary Lobe Interactions."

Johnston says the meeting, sponsored by the Ares-Serono Corporation, will feature symposia geared to showcasing young scientific talent.



Dr. Craig A. Johnston

"The sponsor felt that a large amount of the experimental work is being performed by young scientists who produce ideas, technology, and results, but who may not have the opportunity to communicate their scientific ideas to each other," he said.

Johnston is a senior staff fellow in the reproductive neuroendocrinology section of the Laboratory of Reproductive and Developmental Toxicology, Division of Intramural Research, NIEHS. □

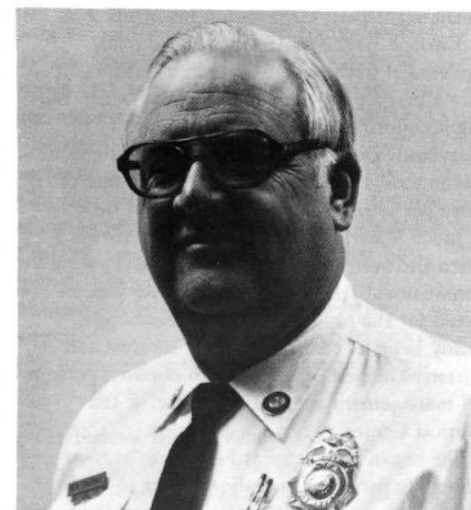
Fire Chief Coleman Dies; Headed Department Since 1980

William F. Coleman, chief, fire and emergency response section, Emergency Management Branch, Division of Safety, died Dec. 13 at the Shady Grove Adventist Hospital.

In addition to his service with the NIH Fire Department, Coleman was active with the Rockville Volunteer Fire Department until his death. He was buried with full fire department honors.

A lifelong resident of Rockville, he was involved in many church and civic activities, especially those concerned with the youth of the community.

Coleman began his career in the Fire Department at NIH in 1956. He was appointed chief of the department in 1980. During his tenure, Coleman was responsible for many improvements in emergency services to the NIH community.



William F. Coleman

Wallace Joins OD; Kupfer Named Acting FIC Director

Dr. Craig K. Wallace, who has held the dual roles of director of the Fogarty International Center and NIH associate director for international research, joined the Office of the NIH Director effective Jan. 1 in the latter position as the two posts are divided.

Dr. Carl Kupfer, director of the National Eye Institute, will become acting director of the FIC until a permanent FIC director is named. Kupfer will assume the Fogarty leadership while retaining his directorship of NEI.

The new FIC acting deputy director will be Edward H. McManus, NEI's current deputy director who, like Kupfer, will retain his duties at the Eye Institute.

In joining the staff of NIH director Dr. James B. Wyngaarden, Wallace will provide a central coordinating and integrating function for the international aspects of biomedical and behavioral research of the NIH and serve as a major source of advice to the NIH director on all matters relating to international health.

Wallace was appointed FIC director and NIH associate director for international research in 1984. A former captain in the U.S. Navy, he came to NIH from Cairo, Egypt, where he was commanding officer of Naval Medical Research Unit No. 3.

Kupfer has been the NEI director since January 1970, just after the institute's establishment. Prior to joining NIH, he was chairman of the department of ophthalmology at the University of Washington Medical School in Seattle. □



Lucia C. Biederman has been appointed personnel officer for NIAMS. She was formerly a personnel management specialist with NHLBI. Before joining NIH in 1981, Biederman was a teacher and college instructor in French language and literature. She holds an M.A. degree in French literature from Middlebury College in Vermont.

Russell Retiring from Management Position

George F. Russell, Jr., currently director of the Division of Management Policy, is retiring, effective Jan. 29, after 25 years at NIH and 37 years of federal service.

Russell, who has managed the division since 1974, said in a recent interview with the *Record* that "It's (NIH) an exciting place to work because the mission here is so important. You hear about NIH on the news all the time in a positive light."

As staff to the associate director for administration, the DMP conducts management studies, codifies NIH policies and procedures and manages organizational development projects, along with a wide variety of other responsibilities. "Recently," Russell stated, "we have become very involved with information resources management and office automation."

Under Russell, the division pioneered a flexible work hours program at NIH (flexitime), and is currently conducting tests of flexible work sites (flexiplace). Russell was involved in management training activities, serving two 3-year terms on the NIH administrative training committee and for eight years as NIH's representative on the department's Management Intern Development Committee.

Before coming to NIH in 1962, Russell worked at the Social Security Administration and served in the Air Force for seven years. In 1965, he won a National Institute of Public Affairs fellowship for graduate studies at the University of Indiana's Institute for Public Administration. During his 25 years here he also worked as assistant executive officer and executive officer at the National Library of Medicine, as well as executive officer at NICHHD, where he was awarded the DHEW Superior Service Award. In 1973, Russell took an intergovernmental personnel assignment to Temple University's Health Sciences Center in



George F. Russell, Jr.

Pennsylvania as its executive officer.

Aside from Russell's official position at NIH, he has been active in the NIH's R&W activities as president of both the NIH Golf Association and the Bicycle Commuter Club, and served as a member of the board of directors of the NIH Fitness Center.

After retirement, he and his wife, Jean, a former NHLBI employee, plan to make a cross-country trip to visit relatives in a van he is converting into a camper. Russell, an avid bicyclist, also plans to spend time spinning those wheels and improving his golf game.

An open house will be held on Jan. 29 in the Bldg. 1 cafeteria. Those who wish to attend should call 496-1873. □

USUHS Seeks Volunteers

The Uniformed Services University of the Health Sciences, Department of Medical Psychology, is seeking male and female volunteers between the ages of 18 and 65 to participate in a study involving the relationships between different personality traits and task performance under a mildly stressful situation.

Volunteers will be paid \$15 for one and a half hours of their time.

For further information contact Rebecca Raymond, 295-3278. □

DCRT Wins Award

The DCRT Information Office recently won a Finalist Award in the First Mercury Awards Competition for its centennial poster.

The Mercury Awards Competition, sponsored by Larimi Communications Associates, Ltd., was created to honor outstanding achievements in media communications by public relations professionals. Entries were received from the United States, Canada, and several European countries. □

Dr. Frederick P. Ferguson Retires After 27 Years

Dr. Frederick P. Ferguson retired recently after 27 years of service with the National Institute of General Medical Sciences. At the time of his retirement, he was program coordinator of the NIGMS Biophysics and Physiological Sciences Program.

"Dr. Ferguson has played a particularly important role in the development of the Fellowship and Research Career Development Awards Programs," said Dr. Ruth L. Kirschstein, director of NIGMS. "His contributions in these areas have greatly enriched biomedical research by enabling large numbers of creative scientists to start fruitful careers."

Ferguson joined NIGMS in 1960 as chief of the research fellowships section. "I was interested because, as a professor at a medical school, I was aware of the need for more well-trained investigators to meet the rapidly growing needs of the biomedical enterprise in general, and medical schools in particular," he said. In 1963, he was named chief of the NIGMS Research Fellowships Branch.

Ten years later, when the institute was reorganized into its present structure, Ferguson was named deputy director of the Biomedical Engineering Program, and in 1976, he became program director.

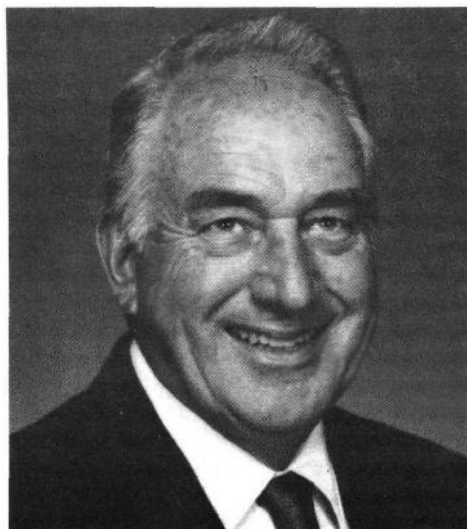
"This was a very interesting and satisfying period," he remembered. "We were involved in the development of biomedical engineering research centers and program projects and in the support of advances in such areas as instrumentation, biomaterials, biomechanics, and ultrasound. Some specific achievements that come to mind include the development of bioglass, advances in microelectronics research in such areas as totally implantable telemetry, and the development of the widely acclaimed 'Utah arm.'"

In 1978, two NIGMS programs were combined and he was named program coordinator of the newly formed Physiology and Biomedical Engineering Program. In 1984, that program was modified and renamed the Biophysics and Physiological Sciences Program.

Ferguson received both B.A. and M.A. degrees from Wesleyan University and the Ph.D. degree in zoology and biochemistry from the University of Minnesota.

From 1943 to 1945, he was an instructor in physiology at the Louisiana State University School of Medicine, teaching students enrolled in Army and Navy medical training programs. In 1945, he joined the Bureau of Biological Research at Rutgers University, becoming an assistant professor of physiology in 1946.

Returning to Wesleyan University, Fer-



Dr. Frederick P. Ferguson

guson was assistant professor of biology from 1947 to 1949. He then joined the faculty of the University of Maryland School of Medicine, and was named a professor of physiology in 1955.

While at NIGMS, Ferguson received several awards, including the NIH Director's Award. He is a member of Phi Beta Kappa and Sigma Xi; his other academic awards include the Woods Hole Scholarship from Wesleyan University in 1938, the Charles P. Sigerfoos Fellowship from the University of Minnesota in 1941 and 1942, and a citation for distinguished service as teacher and scholar from Wesleyan University in 1958.

Ferguson is an active member of several professional societies, including the American Physiological Society and the Biomedical Engineering Society, on whose board of directors he served from 1980 to 1982. He is also a fellow of the New York Academy of Sciences and the American Association for the Advancement of Science. He has been a member of the corporation of the Marine Biological Laboratory at Woods Hole since 1949, and of the Mount Desert Island Biological Laboratory since 1953.

His immediate retirement plans include extensive travel with his wife, Dorothy, and sailing trips on the Chesapeake Bay. He is also looking forward to spending time with his two sons, three daughters, and five grandchildren.—Wanda Warddell □

Mowczko Receives Award

William E. Mowczko, management analyst with NIDDK, has received the 1987 Outstanding Instructor Award sponsored by the Baltimore Gas and Electric Company. He was honored as the outstanding part-time community college instructor at ceremonies held during the annual meeting of the Maryland State Council on Vocational-Technical Education.

Mowczko has been a part-time instructor at Frederick Community College since 1981; he teaches two courses in the Parks Management Program, Conservation of Natural Resources and Resource Protection and Safety.

His interest in teaching dates back to his college days where he majored in biology with education and began his career as a secondary school teacher. He later received his master's degree in environmental science. Mowczko began his career at NIH in 1972 as a biologist, and in 1978 was accepted into the Management Intern Program. □



Dr. Tibor Borsos, chief of NCI's Laboratory of Immunobiology and research professor of pathology at the Uniformed Services University of the Health Sciences has received the Senior U.S. Scientist Award from the Alexander von Humboldt Foundation of the Federal Republic of Germany. Borsos specializes in complement research and the interaction of antibody and cell surface antigens. The award includes approximately \$30,000 to go toward expenses for up to six months of research at the University of Mainz in Mainz, Germany, this spring.



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	
Effective Presentation Skills	1/20-21
Working With Personal Differences MBTI I	1/27-28
Introduction to Supervision	3/7-11
Federal Budget Process	2/24-26
Effective Communications	3/29
Reviewing Other People's Writing	3/1-3
Interpersonal Relationships in 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	3/29-31
Using Animals In Intramural Research	2/4
Hands-on-Animal Techniques	2/24

<i>Office Skills</i> 496-6211	
Working With Personal Differences for Support & Technical MBTI I	2/18-19
The New Professional Secretary	2/12
Professional Effectiveness for the Experienced Secretary	3/17-18

Adult Education 496-6211

Training and Development Services Program 496-6211

Career Curricula Program Opens	1/11-2/19
Management Intern Program Opens	1/6-2/19

Now Available on Share Training
FY 88 Training Center courses

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TRAINING.

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

Win a Camera

Beginning Jan. 4 and continuing until the drawing date—close of business Jan. 29—all R&W members who utilize District Photo processing will be given an opportunity to win a Kodak Tele Disc Camera.

Just write your name and phone number on the back of your receipt; when you come to pick up your photos, your slip will be deposited in a special box. A winner will be selected from each store. □

NCI Begins Pediatric Trials With IL-2

The National Cancer Institute has expanded its clinical trials with interleukin-2 (IL-2) to include, for the first time, patients with advanced cancers who are younger than 18.

Four institutions are now treating patients in this age group with IL-2, a biologic that appears to activate the immune system to destroy cancer cells. These patients have solid tumors or blood cancers and have failed standard treatments.

The four participating institutions are the NCI Pediatric Branch at the Clinical Center; Emory University in Atlanta, Ga.; the Medical College of Wisconsin/Childrens' Hospital of Milwaukee in Milwaukee, Wis.; and M.D. Anderson Hospital and Tumor Institute in Houston, Texas.

IL-2 stimulates the patient's white blood cells, or lymphocytes, to become lymphokine-activated killer (LAK) cells that are capable of destroying cancer cells. In 1985, NCI scientist Dr. Steven A. Rosenberg and his co-workers reported in the *New England Journal of Medicine* that patients treated with IL-2 plus LAK cells had anticancer responses. To avoid the toxicities associated with the high doses of IL-2 required for LAK cell production, Rosenberg's group generated LAK cells outside the body (*ex-vivo*) and then infused the LAK cells, along with more IL-2, back into the patient.

Based on Rosenberg's more recent findings of anticancer responses in a small number of patients who were able to tolerate high doses of IL-2 alone (without *ex-vivo* LAK cell production), scientists at the NCI Pediatric

Branch are testing a modified approach. They are giving high concentrations of IL-2, but they are reducing the rapid, intravenous delivery of a concentrated mass (bolus) of IL-2 and giving it instead as a slow, continuous, intravenous infusion.

The new pediatric studies are Phase I trials. They are designed primarily to determine the safety and optimum dose of IL-2 in young patients with solid tumors or blood cancers. However, there is always hope for an anticancer effect and all responses are carefully monitored. Phase I trial results can be used to select several appropriate doses for future Phase II trials that specifically focus on determining the agent's anticancer effect.

In the NCI Pediatric Branch trial, patients receive IL-2 intravenously and continuously for five days, followed by a two-day rest. This is repeated three times, for a total treatment course of 21 days. Five evaluable patients will be treated at each dose level and monitored to determine the nature, incidence, and severity of toxicities.

In a recent study, NCI's Dr. Leonard Neckers and his co-workers found that laboratory incubation of human leukemia cells for seven to 10 days with IL-2 can induce the leukemia cells to mature and die. Based on this research, the scientists will monitor the cell-killing ability of IL-2 in young leukemia (acute lymphoblastic) patients treated with IL-2 by analysis of blood samples drawn at scheduled intervals. Where possible, the laboratory response to IL-2 will be correlated with the patient's treatment response.—Florence Karlsberg-Antoine □

Sylvia Z. Edelstein Dies; Worked 25 Years With NINCDS

Sylvia Zilber Edelstein, 50, data processing section chief in the NINCDS Biometry and Field Studies Branch, has died after a lengthy illness. A principal force in "computerizing" statistics and medicine for NINCDS during the computer revolution of the sixties and seventies, she was also known for identifying promising students—especially minority students—and training them through various NIH temporary employment programs.

In her 25 years with the NINCDS Division of Intramural Research, she received several awards, including the NIH Director's Award (1983) and the DHHS Outstanding Handicapped Employee of the Year Award (1984).

Edelstein was also honored in her college career, receiving the District of Columbia Pharmaceutical Association Scholarship to George Washington University. She held

membership in several scholastic honor societies as well, including Alpha Lambda Delta, Alpha Zeta Omega, and Iota Sigma Pi. She received her B.S. from George Washington University in 1959.

Born in Baltimore and raised in Washington, D.C., and Bethesda, she was a lifelong resident of the area. She graduated from Bethesda-Chevy Chase High School and after college joined NINCDS (then known as the National Institute of Neurological Disease and Blindness) in 1963.

Edelstein loved country music and would travel widely on weekends to hear different bands. She also loved pets, often taking in stray or injured animals.

She is survived by her husband, Dr. Michael Edelstein; her mother, Ann Zilber; and her sister, Judy Zaller.

*'A Renaissance Man'***Lipsett Remembered in Auditorium Dedication Ceremony**

By Eileen Corrigan

"He stood out, even in this remarkable community of biomedical scientists. People like this can change events, and he did," said Dr. D. Lynn Loriaux, chief of NICHD's Developmental Endocrinology Branch. Loriaux was describing his mentor and friend, the late Dr. Mortimer B. Lipsett.

Family, friends, and colleagues gathered recently at the Clinical Center to honor his memory at the dedication of the Mortimer B. Lipsett Auditorium, formerly the ACRF Amphitheater. Lipsett died in 1985, having devoted 25 years to NIH as a biomedical investigator, physician, and administrator. Most notably, he served as director of three of its components: the Clinical Center; the National Institute of Child Health and Human Development; and the National Institute of Arthritis, Diabetes, and Digestive and Kidney Diseases.

Lipsett was well-recognized as a pioneer in the field of endocrinology, serving at various times during his career as the editor-in-chief of the *Journal of Clinical Endocrinology and Metabolism*, the president of the Endocrine Society, and the secretary general of the International Society of Endocrinology. One of the most frequently cited authors in the world's endocrinology literature, he was known for his research on a wide range of topics such as hormones and cancer, steroid metabolism, hypothalamic control mechanisms, and problems in sterility and fertility.

"Mort championed endocrinology as a discipline. He was one of the true statesmen of the Endocrine Society," said Dr. Gerald D. Aurbach, chief of NIDDK's Metabolism Branch. "He was also a champion of young investigators ... a mentor to innumerable trainees who themselves have become leaders in the field. He had an intense desire to help people understand endocrinology and science."

To help communicate science and the importance of biomedical research to the lay public, Lipsett started the popular "Medicine for the Layman" series, an NIH lecture program attended by more than 30,000 people since it began 11 years ago.

Those who knew him remember Mort Lipsett as a powerful intellect, a master of the racquet games, and an expert at bridge. He was, in the words of one friend, a Renaissance man.

Dr. James B. Wyngaarden, director of NIH, noted that, as an administrator, "Mort's

strength was through the application of a wide range of abilities and challenges to the opportunities at hand. He had the common touch that enabled him to deal with very complex problems in a very logical and systematic way."

Loriaux fondly recalled his early days at NIH as a clinical associate under Lipsett. "He was a man of enlightenment and reason almost entirely free of the encumbrances of dogma." This special feature of Lipsett's character was strongly and consistently expressed every day of their association. Lipsett taught that truth was revealed by scientific process—anything less was suspect. No tenet of medical practice was too sacred to escape scrutiny. "He didn't care where you came from, but he did care that you understood where you were—the place where the scientific habit of mind prevailed, where it was all right not to know, but it was not all right to assume that you did."

Shortly before Lipsett's death, as the two were walking down the hall from the hospital room, Loriaux discovered he was taller than Lipsett. Over the years, he had thought of Lipsett as taller, but, said Loriaux, "I realized

that, integrated over time and the experience of many years, this man emerges as larger than life."

Loriaux told a story about his first formal rounds at NICHD in which he presented a particularly complex case to a group led by Lipsett. As he discussed the patient's problems, he began to feel his hard work had paid off. Lipsett seemed pleased with his analysis and conclusions.

Finishing the review, Loriaux added that the patient had an abnormal glucose tolerance, or blood sugar test, so he had recommended weight loss and a diabetic diet. Lipsett's look of satisfaction faded. "Why did you recommend that?" he asked. "Standard practice," Loriaux replied. "Not good enough," said Lipsett. "Diets are not easy. What evidence do you have that the benefit of this intrusion will ultimately justify it?" Rounds began to break up. Loriaux was dumbfounded. He expected criticism about the complex features of the case, not about ordering a special diet. "Well," he said feebly, "that's the way it's done in Mecca." Lipsett turned and, facing the young physician, said, "*This is Mecca.*" □



Dr. Lois F. Lipsett, widow of Dr. Mortimer B. Lipsett, and NIH director Dr. James B. Wyngaarden stand beside the newly unveiled portrait of Lipsett following ceremonies dedicating the former ACRF Amphitheater in his honor.