

March 5, 1991

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U.S. Department of Health
and Human ServicesNational Institutes of
Health"Still
The Second
Best Thing
About Payday"

The NIH Record

A Year in the Life...

Project Turns High Schoolers Into NIH Researchers

By Carla Garnett

More than half their year-long NIH stay is over, but the time has been well spent.

They know the language now and they casually toss around phrases like "subcloning a gene" and "subject to mutagenesis," phrases peculiar to medical research milieus.

They know the basic techniques and they confidently pipette murky liquids into or out of designated containers. They look like they know what they are doing. They are familiar fixtures in their various research environments—and the oldest among them just celebrated his 17th birthday about 2 weeks ago.

Encouraged to don NIH labcoats and explore daily hands-on research, nine Montgomery County high school juniors came to campus last June and decided to stay.

Their decision meant a lot of things to a lot of people: To NIH's then newly created Office of Education, it meant a chance to co-launch, with the Howard Hughes Medical Institute, the office's first pilot project to attract young would-be scientists. To institute researchers, it meant an opportunity to share their science

with fresh eyes and eager ears, and just as importantly, additional hands.

To the students, it meant leaving school 4 days a week after lunch en route to the lab, forfeiting most extracurricular activities and free time with friends, and volunteering for extra science assignments and homework. To their futures, their decision meant the chance of a lifetime.

"Working at NIH is a far different experience than anything I would normally find in high school or even in college," said Stacy Marcus, a 16-year-old Kennedy High School student working in NICHD's Laboratory of Molecular Genetics.

"It's a rare experience to be in high school and working in a lab," agreed Gaithersburg junior Tony Scott, 16, who is thinking of majoring in pre-med studies in college. He works in the Laboratory of Biological Chemistry at NCI. "I'm learning things I wouldn't ordinarily learn and learning them on a much higher level," he said.

(See **STUDENTS**, Page 6)

New Paging Device Available To the Hearing Impaired

By Anne Barber

Arthur Lee Jones recently received a gift—a paging device. Jones will wear the device at all times while at work. This special pager assists hearing-impaired employees in the event of an emergency by vibrating and then displaying a message telling the wearer which building is being evacuated.

The pager is part of a system that has been installed in Bldgs. 7, 8, 13, 30, 31, 36, 38 and 41 where there are identified hearing-impaired employees. "We are now working on Bldgs. 4, 9, 29, 29A and 38A," says Richard E. Shaff, chief, Emergency Management Branch.

If you know of any hearing-impaired employees located in buildings not identified here, please notify Shaff's office, 496-1985. If you are hearing impaired and need a paging device, contact your administrative office.

According to Libby McKnight, a sign language interpreter in the Division of Equal Opportunity, NIH has approximately 40-45 deaf employees.

Jones works as an animal caretaker for NINDS in Bldg. 36, and had to depend on coworkers to locate him in case of evacuation.

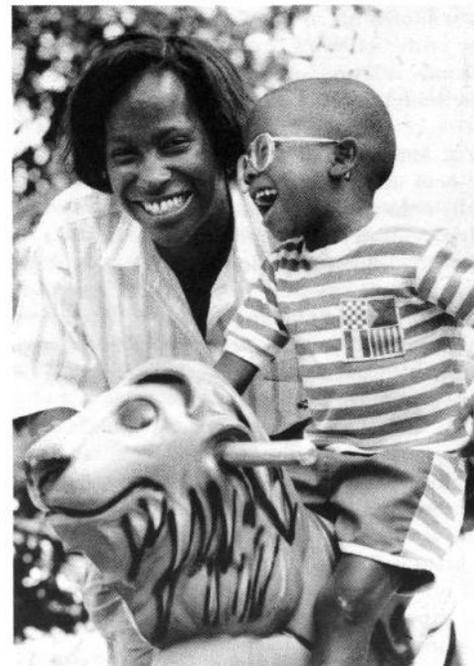
(See **PAGER**, Page 7)

New Drug Shown To Benefit Hereditary Immune Disorder

By Laurie K. Doepel

A new drug that enhances the immune response has had dramatic success in treating the hereditary immune disorder chronic granulomatous disease (CGD), scientists reported in a recent issue of *New England Journal of Medicine*. The drug, recombinant gamma interferon, reduced the frequency of serious infections by about 70 percent in patients with CGD. A genetic defect leaves people with CGD vulnerable to certain life-threatening infections. The drug was twice as effective as antibiotics, the current mainstay of CGD treatment.

"These findings are important not only because they will help children with CGD, but also because we now have a precedent for



CGD patient James Mann, at age 4, plays with his mother at the Clinical Center playground.

testing gamma interferon in other patients with compromised immune defenses who are susceptible to recurrent infections such as patients on cancer chemotherapy, neonates, the aged, and victims of trauma," said Dr. John I. Gallin, director of NIAID's Division of Intramural Research and one of the seven principal investigators on the study.

The International Chronic Granulomatous Disease Cooperative Study Group, composed of researchers at 13 medical centers worldwide, conducted the study under the sponsorship of Genentech, Inc., of South San

(See **CGD**, Page 4)

Mainly Affects Women

Conference Weighs Surgery Risks in HPT Patients

By Jane DeMouy

For some patients with asymptomatic primary hyperparathyroidism (HPT), conscientious monitoring is an appropriate alternative to surgery, according to a recent NIH consensus panel convened by NIDDK and the Office of Medical Applications of Research.

Primary hyperparathyroidism is usually caused by a benign tumor of one of the four parathyroid glands, which releases parathyroid hormone (PTH), which in turn acts to raise blood calcium. Hyperparathyroidism can cause bone loss with potential fractures, kidney problems, neuromuscular weakness, and other common symptoms. Removal of the affected gland by an experienced surgeon is a highly successful treatment for primary hyperparathyroidism.

Multiphasic screening tests are now identifying approximately 100,000 new cases of HPT in the United States annually, but because many of these patients have no symptoms other than elevated levels of calcium, their treatment has been controversial. The risk of hyperparathyroidism increases with age,

(See **HPT**, Page 2)

HPT

(Continued from Page 1)

and occurs most often in postmenopausal women.

In discussing the "Diagnosis and Management of Asymptomatic Primary Hyperparathyroidism," the panel said diagnosis of HPT is based on two findings—persistent hypercalcemia and elevated serum parathyroid hormone. New immunoassays for PTH have helped improve diagnosis.

Some patients may present without signs or symptoms of the disorder. These patients need not have surgery, the panel said, if a baseline evaluation finds no evidence of complications and they are conscientiously monitored for progression of the disease.

The panel said that a patient qualifying for nonsurgical management must have serum calcium that is only mildly elevated, no previous episodes of life-threatening hypercalcemia, and normal kidney and bone status. Surgery would be indicated for an asymptomatic patient with any of the following: markedly elevated serum calcium; a history of an episode of life-threatening hypercalcemia; reduced creatinine clearance; presence of kidney stone(s) detected by abdominal radiograph; a markedly elevated 24-hour urinary calcium excretion; or substantially reduced bone mass. The panel also advised surgery where followup is unlikely, a coexistent illness complicates management, or the patient is less than 50 years old, since the effects of decades of asymptomatic HPT are unknown, and younger patients will have a longer life expectancy over which monitoring must occur.

The choice between surgery and medical management should be "founded on clinical judgment on a case-by-case basis," according to panel chair Dr. John Potts, physician-in-chief at Massachusetts General Hospital. How to balance the need to identify skeletal, renal, and other complications against the burdens and expense of long-term monitoring was a principal concern of the panel.

For asymptomatic patients who do not have surgery, the panel recommended they be evaluated semiannually to establish that the disease is not progressing. Once stability of these parameters is established in 1 to 3 years, testing can occur less frequently. Patients should drink lots of water, get plenty of exercise, and avoid loop or thiazide diuretics, as well as diets with restricted or excess calcium.

The panel advised against the use of expensive imaging techniques such as computed tomography, ultrasound, thallium technetium scanning or magnetic resonance imaging to locate benign tumors before initial surgery. In view of the 95 percent success rate of experienced surgeons who locate and excise tumors without imaging, the tests are not

considered cost effective. They may be useful, however, if a previous operation failed.

Finally, the panel called for a randomized, multicenter clinical trial to compare surgical and medical management of HPT and for basic research on the pathogenesis of the condition and the development of pharmacologic treatments for the disease. □

DCRT Holds Seminar on Mac Software for Scientists

Software for the Macintosh has developed rapidly in the last few years, with a wide range of application programs now available for scientists. Areas of potential interest to NIH researchers include extremely user-friendly systems for statistical analysis, publication-quality graphics and charting, powerful numerical computation and extensive special function libraries, full "what you see is what you get" palette-driven equation and formula setting for rapid PostScript scientific text preparation, and gene sequencing information and data management.

On Apr. 3 and 4, the DCRT Computer Center Training Unit will cover these areas in six 90-minute modules that will present expert introductions to:

- JMP, from SAS Institute: statistics, exploratory data analysis and graphics.
- SYSTAT, from Intelligent Software: full featured statistics and plotting system.
- KaleidaGraph, from Synergy Software: curve fitting and statistical graphics.
- Mathematica, from Wolfram Research: intensive numerical computations, 2 and 3-D plotting, symbolic manipulation, advanced equation solving, extensive function library.
- MathType, from Design Science: palette-driven equation and formula typesetting.
- MacVector, from IBI, Inc.; DNA Strider; Gene Construction Kit, from TextCo: DNA sequencing and library processing.

An overview of the programs and scientific software for the Macintosh will be given by Dr. James D. Malley of DCRT's Laboratory of Statistical and Mathematical Methodology. Class members are encouraged to attend just those modules of greatest interest to them, but course enrollment is required as space is limited. Call 496-2339 to reserve a place. □

CC Art Exhibits Planned

The Clinical Center art galleries will include the following presentations between Mar. 12 and May 7:

- Gallery I—Caroline Huff, acrylic on canvas.
- Gallery II—Judy Gallegos, watercolors.
- Gallery III—L. McGuff-Silverman, pastel on paper.
- Gallery V—Carla Andersen, oil on canvas.
- Sculpture I and II—Deborah Ballard, sculpture. □



Geraldine Dietz Fox, chair of the NIDCD Advisory Board, was named a winner of the Distinguished Service Award from the American Speech-Language-Hearing Association (ASHA). The award was presented by Roy A. Koenigsnecht, past president of ASHA, "for her tireless work on behalf of the 24 million Americans with speech, language and hearing disorders who will benefit from the research supported by the institute."

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NIEHS Award To Enhance Physicians' Knowledge of Environmental Medicine

When a patient goes to his or her doctor with an illness arising from an environmental exposure, how likely is the patient to receive a diagnosis that correctly relates the illness to the environment? If a patient has questions about the possible risk of specific environmental exposure, does the physician have the answers or know where to get them? And can the physician effectively communicate to patients concepts of risk related to environmental exposures?

Two major studies, one from the American College of Physicians and the other from the National Academy of Sciences, have pointed out the need for a broader awareness and understanding of environmental and occupational diseases—their prevention, diagnosis, and treatment—among primary care physicians. As a result of these findings, the National Institute of Environmental Health Sciences has established the Environmental and Occupational Medicine Academic Awards to strengthen curricula in environmental health sciences in United States schools of medicine and osteopathy.

The new awards will provide salary supplementation and certain other specified expenses to allow a member of a medical school faculty to spend at least half of his or her time on enhancing the teaching of environmental medicine. This enhancement could be in the form of increased availability of courses on the subject, or through introduction of material on environmental health science in courses already being offered, or by combining these and perhaps other innovative methods.

Recipients will be encouraged to expand their own educational skills, for example by taking additional course work to extend their

own knowledge or by doing a mini-sabbatical to develop their knowledge in an area related to environmental health sciences. In addition, awardees will be brought together annually to share information, ideas and progress reports so they can gain by each others' experiences.

Dr. Anne P. Sassaman, who directs the Division of Extramural Research and Training at NIEHS, which administers the awards, says the institute had no idea how the request for applications would be received. Letters detailing the award were sent out to deans and chairpersons of schools of medicine and osteopathy. Thirty-two applications were received, representing about 25 percent of the schools of medicine or osteopathy in the U.S. Not only was the number of applications impressive, but also the quality was very high. These were reviewed by the Environmental Health Sciences Advisory Council in January and will be funded beginning in July.

Congress has responded to the awards program with enthusiasm by providing \$500,000 for the awards in the current budget. This in turn has encouraged NIEHS to plan to open the program for applications again in 1991. The awards can be made for up to 5 years, subject to annual reviews. "We encourage new applicants. Certainly some of the applicants not funded in the first round may want to strengthen their applications and reapply," Sassaman said.

"We're relying on applicants to be innovative," she added. The awards program is modeled after a similar award made by NHLBI.

"The institute realized that we couldn't hold applicants to a set, core curriculum," Sassaman noted. "Environmental health sci-

ences is a derivative field drawing on many disciplines. In addition we realized that in a field attracting young professionals, it would be better not to limit the award to tenured faculty members. We have learned as we have gone along."

Two studies prompted the establishment of the award program. "Illness from the Environment: Meeting the Growing Need for Clinical Services," a study by the Institute of Medicine of the National Academy of Sciences, Division of Health Promotion and Disease Prevention, which was sponsored in part by NIEHS, led directly to the development of the program. The other study, "Occupational and Environmental Medicine: The Internist's Role," from the American College of Physicians health and public policy committee, made clear the need for knowledge of environmental medicine in a broad segment of the medical community.

Sassaman points out that the NIEHS awards were designed to complement the already excellent work being done by specialists in occupational medicine and by the National Institute for Occupational Safety and Health. She notes that the NIEHS program will endeavor to reach physicians seeing those patients who may be ill from a chronic exposure to an environmental agent unrelated to a work setting, who might not otherwise receive appropriate care. "We are reaching out to a broad segment of the medical community. We are not involved in training for a subspecialty. We want to sensitize a broad segment of the primary care physicians and others in the medical community to be alert to environmental diseases."—Thomas R. Hawkins □

Cafeteria Has Nutrition Month Recipe Card Promotion

March is Nutrition Month. The theme this year is "Play to Reduce the Risk of Disease ... Eat Well to Win," so the GSI Cafeteria Service is sponsoring a promotional giveaway for NIH employees.

Be a Daily Prize Winner: get the "Stay Young at Heart" recipe card with a gold star on the back and win a free cafeteria meal (up to \$5). There will be one star to find each day at only one of the cafeterias during the month of March.

Be a Grand Prize Winner: get the "Stay Young at Heart" recipe card with a red star on the back and win dinner for two (up to \$50) at Potomac's Landing. On Friday, Mar. 29, one card in one of the cafeterias will have the red star.

Discover the stars at any of the Guest Services cafeterias. If you get one, turn in the starred recipe card to the cafeteria cashier. No purchase is necessary. □



Bob Mehnert, public information officer at NLM for the past 20 years, was recently inducted into the NIH Blood Bank's Hall of Fame upon the occasion of his 100th blood donation here. An NIH'er since 1965, Mehnert has been donating blood since April 1966. Married with three children and eight grandchildren, Mehnert enjoys being able to help Clinical Center patients with his regular blood donations. Looking on is Gail Carter (r), supervisor of the NIH Platelet Center, and Nurse Fran Moyer.

CGD

(Continued from Page 1)

Francisco, the biotechnology company that manufactures the drug.

This study marks a high point in decades of research invested in unraveling the basis of the genetic defect in CGD that began in 1957 when the disease was first described.

"The finding that gamma interferon treatment dramatically benefits patients with CGD provides an excellent example of how investment in basic research can lead to clinically useful payoffs," said Dr. Anthony S. Fauci, NIAID director.

Inherited Defect Affects Immunity

CGD actually represents a group of closely related diseases caused by a defect in any one of four genes. The defect can be inherited in different ways—as a dominant trait from one parent, as a recessive trait from both parents, or as a recessive sex-linked trait from the mother. Two-thirds of CGD patients inherit the sex-linked form of the disease, and thus, like hemophilia, CGD most often affects young boys.

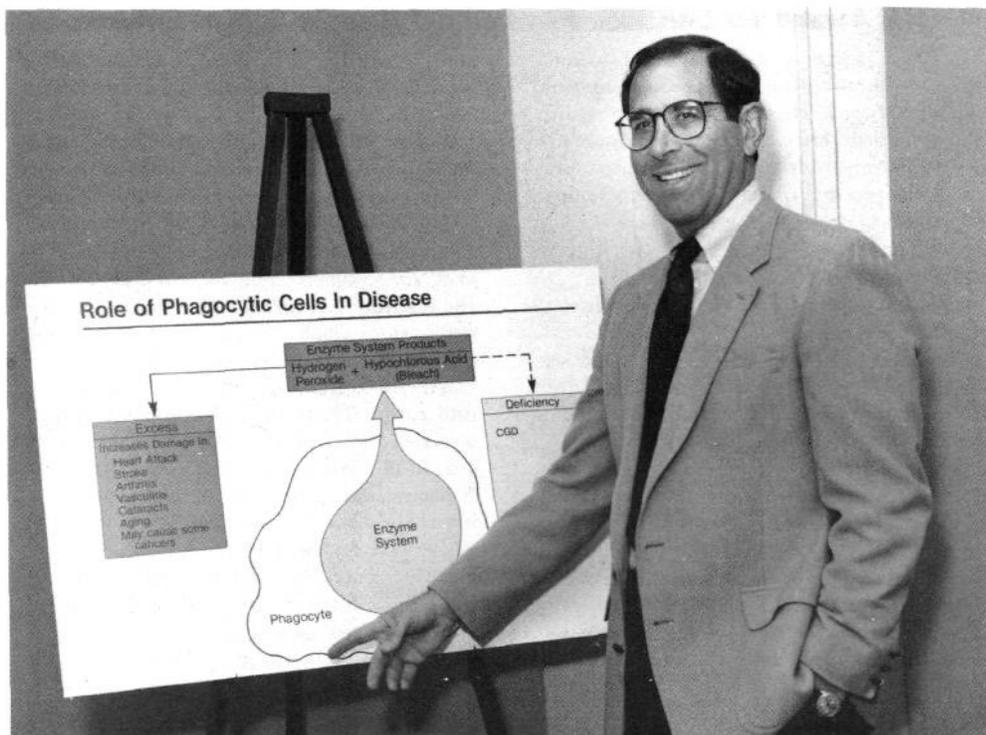
Regardless of how a person inherits the defect, though, the result is the same: phagocytes, the scavenger cells of the immune system, fail to produce the oxygen-rich chemicals needed to kill most fungal and bacterial germs. These chemicals—including hydrogen peroxide, hypochlorous acid (bleach), and other oxygen-free radicals—are normally toxic to cells. But during a metabolic process known as the respiratory burst, the immune system harnesses their toxic potential to work on its behalf.

The inherited defect also causes excessive inflammatory reactions manifest in conditions such as gingivitis (swollen, inflamed gums), grossly enlarged lymph glands, and tumor-like masses called granulomas. While not malignant, granulomas can cause serious problems by obstructing passage of food through the esophagus, stomach, and intestines as well as by blocking urine flow from the kidneys and bladder.

Although CGD affects only about 4,000 people worldwide, an understanding of the basis of the disease bears on many other inflammatory diseases involving problems in this metabolic pathway. Oxygen-free radicals, while deficient in CGD patients, are over-abundant in cataracts, vasculitis, rheumatoid arthritis, adult respiratory distress syndrome, and arrhythmias caused by heart attacks or stroke, as well as other diseases.

Drug May Limit Hospital Stays

The scientists predict that the new drug—a bioengineered form of an immune-enhancing substance produced naturally in the body—will significantly improve both the quality and



Dr. John I. Gallin, director of NIAID's Division of Intramural Research, discusses the role of phagocytic cells in disease. He was one of seven principal investigators studying CGD.

length of the lives of CGD patients.

Before 1970, children born with CGD often didn't live past their 10th birthday. Treatment with antibiotics, introduced in the 1980's, has helped reduce the average interval between life-threatening bacterial infections (with no effect, however, on fungal infections). But the onset of a serious infection still requires a long hospital stay for administering intravenous antibiotics, causing a tremendous stress on affected families. Patients treated with gamma interferon with or without prophylactic antibiotics are expected to lead a nearly normal life, with significantly fewer and shorter hospitalizations required to manage their disease.

Patients in the current study who received the gamma interferon required three times fewer days of hospitalization for the treatment of serious infections than did patients receiving placebo.

The phase III, placebo-controlled efficacy study involved 128 patients treated at 13 medical centers: 10 in the United States and one each in The Netherlands, Switzerland, and Denmark. The average age of the patients in the study was 15 years old.

The results showed that gamma interferon markedly reduced the threat of infections. Half as many patients receiving gamma interferon developed serious infections as did those on placebo.

The most dramatic treatment effects were seen among the 52 patients less than 10 years

of age: 81 percent of those receiving interferon were free of serious infection after a year as compared with 20 percent of those receiving placebo. The researchers do not know why the treatment was more effective in this age group. The drug appeared to be most effective in reducing abscesses and infections of the lymph nodes, lungs, and deep tissues.

Gamma interferon benefited patients regardless of their age and mode of inheritance of the disease, and whether or not they received prophylactic antibiotics. The therapy was well tolerated and caused no serious side effects.

Based on this study, the FDA approved the drug for use in CGD patients last December. □

Atlantic City Trip, Apr. 12

Travel by deluxe motorcoach to Trump's Taj Mahal Casino on Friday, Apr. 12. Cost is \$25 per person and includes round trip transportation from NIH and a casino package of \$10 in coin and \$5 in food. Motorcoach will leave from Bldg. 31C parking lot at 7 a.m. and return at approximately 9 p.m.

Sign up for the trip at any R&W location. For more information, contact the R&W Activities Desk, 496-4600. □

New GenBank Programs and Services Available

GenBank, a computerized database of DNA and RNA sequences, now has its AuthorIn program available for the Macintosh computer. AuthorIn, which has been available for the IBM PC and compatibles for over a year, facilitates authors' direct submission of sequence data. GenBank and scientific journals are now asking members of the molecular biology community to submit their sequence data directly to the databank prior to publication.

AuthorIn is an easy-to-use software tool designed to help researchers collate their sequence and annotation data for computer-readable submission to GenBank. Authors may enter their data in any order and may revise them at any time prior to submission. Partially completed entries may be saved and completed in a later session. To reduce typing, menus are provided for many of the fields.

The software features on-screen forms in which to enter information about the submitter of the sequence, literature citations associated with the sequence, the source organism, natural and laboratory hosts, and biologically significant sequence features. Extensive online help is also available. Files generated by AuthorIn are simple text files and may be copied to a disk and mailed to GenBank, or they may be mailed electronically to GenBank from computer systems connected to the Bitnet or Internet networks.

If you would like to receive a copy of AuthorIn, which is available from GenBank at no charge, send your name and address to: GenBank, c/o IntelliGenetics Inc., 700 East El Camino Real, Mountain View, CA 94040 (e-mail address: authorin@genbank.bio.net).

GenBank Curator Program

GenBank has also initiated the GenBank Curator Program. If you are familiar with a domain or family of sequences represented within the database and with the existing annotation, and have some ideas on how the annotation could be improved (for example, to reflect similarities in features across entries, to improve existing nomenclature, or to point out sequence merges or software that could be developed to aid data integrity and validation), GenBank would like to hear from you. Suggestions for work to be done on the database should be submitted to GenBank in the form of informal project proposals, which will be reviewed by both GenBank and NIH staff.

Authors of successful proposals will travel to Los Alamos and work with the annotation or computation staff to carry out the proposed project. Travel to Los Alamos, hotel costs, and subsistence will be covered by the GenBank contract.

Using GenBank

GenBank's nucleotide sequences are available on magnetic tapes, on compact discs, or online in several computer systems. For the most up-to-date sequence information, scientists can use electronic communications to access the database directly. The GenBank Online Service (GOS) is updated nightly and therefore provides an important tool for sequence retrieval, sequence similarity searching, sequence analysis, and electronic communications. GOS is connected to the Internet computer network, allowing worldwide electronic mail, remote login, and file transfer to and from your computer. You can now dial the GenBank computer directly at (415) 961-6860, but you will incur long distance phone charges. For more information, call (415) 962-7307, or e-mail your question to: consultant@genbank.bio.net.

The Division of Computer Research and Technology provides a number of computer-based, sequence analysis-related services for NIH intramural scientists. The main computer on which sequence analysis tools are available is the NIH Convex System, which provides accounts under the Management Fund to NIH intramural investigators. Available on the Convex are the GCG (Genetics Computer Group), a suite of programs providing a plethora of sequence analysis tools as well as access to several locally maintained databases, including GenBank; the National Library of Medicine-developed BLAST suite of programs that were developed for very rapid similarity searches against GenBank; PIR (Protein Identification Resource); and an expanding set of individual programs that carry out specific tasks related to sequence analysis.

In addition to GenBank, DCRT maintains on the NIH Convex System the current versions of the sequence databases from EMBL (European Molecular Biology Laboratory) and NBRF (National Biomedical Research Foundation), and the following databases: Vecbase (DNA vector sequences), PIR, Swiss-Prot (protein database from EMBL), and PDB (Brookhaven Protein Data Bank of protein structural data).

DCRT is also developing a program to provide and support sequence analysis software for personal computers used by NIH scientists. In the fall, the division distributed copies of the International Biotechnologies Inc. MacVector sequence analysis package, for which it provides continued support. For information about DCRT's sequence analysis services, call Dr. Peter FitzGerald, 402-1141, or Dr. George Michael, 402-1140. To apply for a Convex account, call DCRT project control, 496-6146. Specific questions about the

Convex computer should be addressed to the Convex system staff, 496-4823.

Additional information about GenBank is available from the contractor, IntelliGenetics, at (415) 962-7364 (see e-mail address above); or the National Institute of General Medical Sciences project officers, Dr. Irene Eckstrand, 496-7137 (e-mail address: iae@nihcu), and Dr. James Cassatt, 496-7463 (e-mail: czej@nihcu). Questions about data submission are answered by the GenBank subcontractor, Los Alamos National Laboratory, (505) 665-2177 (e-mail: genbank%life@lanl.gov).

—Doris Brody □

Originator of 'Fractals' To Speak

Dr. Benoit B. Mandelbrot, the originator of the theory of fractals and a physicist at IBM's T.J. Watson Research Center in Yorktown Heights, N.Y., will lecture on "The Fractal Cosmos," on Wednesday, Mar. 13 at 2:30 p.m. in Masur Auditorium, Bldg. 10.

Mandelbrot has given his lecture a second title—"Fractals: For the Pleasure of the Eye and the Pleasure of the Mind." From his syllabus for the talk: "Why is geometry so often described as 'cold' and 'dry'?" One reason may be that clouds are not spheres, mountains are not cones, coastlines are not circles, and more generally, man's oldest questions concerning the shape of his world were left without answer by Euclid and his successors. In fact, they came to be disdained by mathematicians, who viewed themselves as increasingly building theories totally unrelated to anything one can see or feel.

"By describing some highlights of the theory of fractals, I will seek to deprive this self image of its foundation."

Mandelbrot will, through use of computer-generated shapes, suggest that "behind some of the mathematicians' wildest creations, and unknown to them, lurked a world that is hard to tell from the real one, and a second world that is purely fantastic, yet surprisingly beautiful and surprisingly useful to the scientist."

The second talk in a series of "listener-friendly" lectures on chaos and fractals, Mandelbrot's presentation is sponsored by the Interinstitute Chaos Council and FAES. □

Normal Volunteers Needed

The NIMH is recruiting normal volunteers of African-American or Italian descent for a blood marker study. Participation requires one blood sample (40cc). Volunteers will be paid for their participation. Call Kayleen Hadd, 496-6565. □

STUDENTS

(Continued from Page 1)

Based on their school attendance, grades, faculty recommendations and personal essays, Marcus, Scott and seven of their peers were accepted into the NIH/HHMI/Montgomery County School intern program, which specifically targets minorities and women for career preparation in science. Every week, Monday through Thursday, the students spend the second half of their days in NIH laboratories, averaging about 4 or 5 hours a day.

Two Montgomery County high school science teachers also train for half-days here, a move designed to test dissemination of techniques learned at NIH to the widest student population possible. NIH provided the labs and preceptors, HHMI donated \$80,000 to the program, and Kennedy and Gaithersburg high schools supplied the students.

"The aim of this program is to give students and teachers a full sense of the scientific process," said Dr. Michael Fordis, director of NIH's Office of Education.

After hands-on lab work at the cutting edge of science, "a lot of students—some of whom initially might not be interested in research careers—may suddenly see science as a road to pursue," he said.

Tania Moss of Gaithersburg High School has a lot of career options and is already looking into several colleges including Xavier, Louisiana State University and Howard University. She decided to try laboratory work because science is one of many school subjects she enjoys and performs well in.

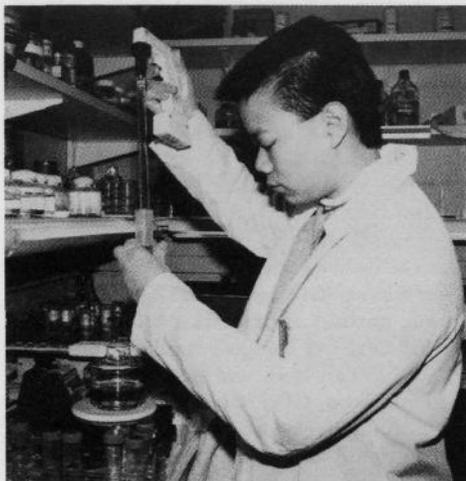
"I'm not sure I want to work in a research lab, but I wanted to be in this program because I am interested in becoming a doctor," said Moss, a Louisiana native caught between wanting to go home for college and wanting to stay in this area.

Moss, 16, is originally from Gibsland, La., a small town just outside Shreveport. She spends her four afternoons a week in NIDR's Laboratory of Immunology. "I had no idea what research was all about," she said. "Here, I've learned to produce a project from the beginning stages and I've already worked with lab animals."

Moss said her friends think she is crazy to work for no pay, after normal school hours, giving up what would usually be time to hang out. "But I knew this was something that would be good for my future," she said. Scott's friends envy him the chance to leave school legitimately. "They just don't know how much work is involved," he said, grinning.

Michael Duong, also of Gaithersburg High, took a mature view of his fortune as an intern in NICHD's Cell Biology and Metabolism Branch. He is, after all, a bit wiser at 17.

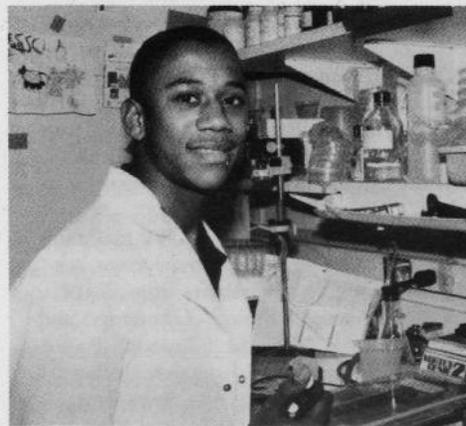
"I see this almost like a part-time job," he



Michael Duong



Stacy Marcus



Tony Scott

"It's a sacrifice I'll make for just one year, but the benefits I reap will last a lot longer than that."

—Ebony Davis, student intern

Photos: Carla Garnett

"I've always liked science. But science hasn't always been pushed. Scientists haven't gotten the publicity or the glamour like the Donald Trumps have. I didn't know what scientists were really like. I mean, I thought they were a little like mad scientists—you know, the Frankenstein type."

—Michael Duong, student intern



Tania Moss



Ebony Davis

said. "It is much more rewarding to me than any sport. Something I do here may help in some small way to unravel some mystery. I don't think it will, but it could. Every single bit helps, I like to think."

Duong, who has considered myriad post-school professions ranging from law to medicine to business, said science as an attractive career has been shortchanged.

"I've always liked science," he said. "But science hasn't always been pushed. Scientists haven't gotten the publicity or the glamour like the Donald Trumps have. I didn't know what scientists were really like. I mean, I thought they were a little like mad scientists—you know, the Frankenstein type."

Before coming to NIH, Ebony Davis of Kennedy High School had a clearer, more realistic image of researchers and science personnel: Her mom is an epidemiologist at Fairfax Hospital. Davis also has more definite career plans in mind.

"I want to travel," said the 16-year-old Daytona Beach, Fla., native who works in NIDDK's Laboratory of Biochemistry and Metabolism. "More than likely, I'll choose a specialty in the infectious disease field."

Like Moss and Duong, Davis said she considers herself lucky to be in the intern program. Like all the interns, her school schedule is still loaded with tough, advanced placement courses even though she must spend about 40 percent of each school week at NIH.

"It's a sacrifice I'll make for just 1 year, but the benefits I reap will last a lot longer than that," she said. "My mom thinks I've kind of overextended myself, but she supports me. I'd tell next year's juniors to think about this program really hard. Realize it's going to be a lot of work, but it's worth it."

These interns have been chosen well. There is a level of maturity, a sense of responsibility, in them that is rare in individuals so young. Duong defined the feeling.

"This is not like in school where something you do is just going to affect you," he said. "I feel like I'm part of a team, here. I'm careful about making a mistake because it could hurt the team. It's going to affect everyone around you. I feel like I'm part of a bigger machine." □

PAGER

(Continued from Page 1)

"I felt like I needed this before because I work in many different animal rooms, and I was always afraid that people would be so busy they might not hear or remember which animal room I was working in, in case of a fire," he said. "Now, I can feel the vibration, look and see which building the alarm is actually going off in, and know when it is time to get out."

Getting a paging device system for the hearing impaired at NIH is the result of a cooperative effort between the Division of Safety, the NIH advisory committee for employees with disabilities, the Division of Technical Services' Telecommunications Branch and the Division of Engineering Services.

Shaff describes the device as a small, relatively lightweight alphanumeric display pager that activates whenever an alarm goes off in any building in which the system has been installed. "This provides additional protection to the hearing-impaired person," continues Shaff, "in that coverage is ensured in buildings other than their primary worksite."

The pager selected for this program does not require recharging and is powered by a single AA battery, available in the self-service stores. "An alphanumeric 'low battery' indicator is displayed on the pager when the battery needs to be replaced," Shaff says.

Mike Lanouette, an electrician leader in the Shops Branch, DES, was also involved with the program "because the paging system is interfaced with the fire alarm system, and we

are responsible for maintaining the fire alarm system."

Lanouette remembers, "Bldg. 36 was the first building to get the system but there was a flaw in it. It worked, but not perfectly."

Dennis Potts, electronics technician in the Telecommunications Branch, says, "The system is fully automatic. Once a fire alarm is activated, it signals a transmitter located in Building 10 that in turns sends a predetermined message to all hearing-impaired pagers simultaneously. This alphanumeric message notifies the carrier which building is actually in alarm. The entire signalling process takes place in a matter of seconds."

Steven Scala, a technical coordinator for the Coordination and Planning Branch, DES, says much planning went into selection of this particular paging system. The initial study began in November 1988, with DS and DES conducting studies on various paging systems.

"The pager system," Scala says, "was a very serious need. Everyone recognized how important this was. Teamwork went beyond DS, DES and telecommunications, it demanded cooperation from all involved. We estimate the second round of buildings will be completed by April 1."

"I am very happy that the alerting procedure is now being implemented," said Shaff. "It should provide a greatly enhanced level of protection to an important segment of our NIH population that has, heretofore, been dependent on the assistance of others during emergencies."

Jones sums up the feeling of all deaf employees when he says, "I am so happy to get this pager. It will certainly help me and I will feel safer."



Arthur Lee Jones (l) receives a paging device designed for use by hearing-impaired employees from Emergency Management Branch Chief Richard E. Shaff as Libby McKnight, a sign language interpreter, explains the functions. The pager is now available in Bldgs. 7, 8, 13, 30, 31, 36, 38 and 41.

NLM Holds Historical Lecture

The National Library of Medicine is sponsoring a historical lecture on Wednesday, Mar. 13, at noon in the Lister Hill Center Auditorium, Bldg. 38A. The speaker, Dr. Robert Davis of Case Western Reserve University, will talk about "Another Kind of Glory: Black Doctors in the Civil War." All are invited. □

NIDDK Scientific Director Jesse Roth Retires

By Kathy Kranzfelder

In 1963, the rail-thin, chain-smoking physician came to NIH as a clinical associate. Intellectually gifted and well trained, the 29-year-old endocrinologist quickly outgrew the role of protege, becoming section chief, then branch chief and eventually institute scientific director. Along the way, he quit smoking and put on a few pounds, married and thrice became a father, but he never lost his commitment.

"Nothing deters Jesse," said Dr. Ed Steers, deputy director of NIDDK's Division of Intramural Research. "Nothing at all. Jesse's hallmark is his unbridled enthusiasm and his imagination. His willingness and facility for trying anything and everything just know no bounds."

Jesse is Dr. Jesse Roth, retiring scientific director for NIDDK's Division of Intramural Research. Steers, who has worked closely with Roth for the past 7 years, can speak with some authority about Roth's tenacity, ingenuity, enthusiasm, intelligence, humor, imagination, leadership and energy—qualities Steers said Roth both possesses and inspires.

According to Steers, the intramural division was extensively reorganized under Roth. "Jesse took several individuals who were in bad situations—for myriad reasons—and through reassignment and relocation helped create new opportunities for them. In addition, he created several new labs, and new sections and moved certain sections out of old laboratories into new laboratories. He put people in close physical and scientific contact with each other, which started new directions and new initiatives," said Steers.

Roth's changes, however, did not always evolve easily. "Understand, too," Steers continued, "that some people were quite upset. When you change things, it raises anxiety. But, you know, that's not necessarily bad. We're in a highly competitive, highly anxious business, and so a high anxiety level is probably more positive than negative."

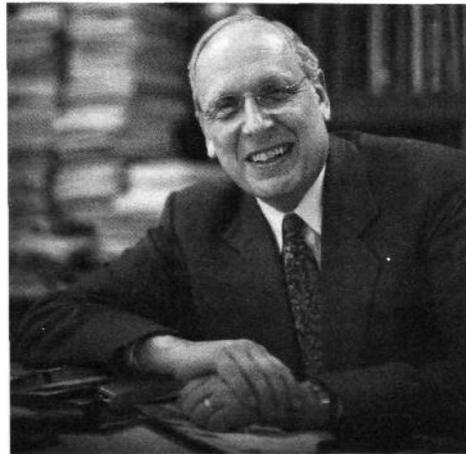
Roth has never been one to quietly observe without contributing to a situation. "In a crowd you could pick out Jesse quickly because he would usually have something to say fairly early in the event," said NIDDK director Dr. Phil Gorden, who has known Roth for the past 23 years. "Jesse usually has an excess of ideas to solve any one problem. If you need one way to do something, Jesse would offer 10. If you need two, he's got 20. Jesse functions on sort of a logarithmic scale in this world."

Roth's tenure at NIDDK is a classic example of the NIH success story, according to Gorden, who was recruited to NIH by Roth in 1966. "NIH was able to retain Jesse for 27

years—from 'infancy' through the real maturity of an important scientific career," said Gorden.

Dr. Jacob Robbins, chief of NIDDK's Clinical Endocrinology Branch, hired Roth in 1963 through the NIH matching program. Roth's obvious talent and potential led to his appointment as a senior investigator after 2 years and chief of the diabetes section 1 year later.

"Jesse matured very rapidly and became a leader not just among his colleagues, but nationally and internationally," said Robbins. "He did that through his energy, productivity and also his ability to break new grounds with his ideas." The diabetes section developed quickly and by 1974, when it was designated a branch, Roth was named chief. Seven years later he became NIDDK scientific director.



Dr. Jesse Roth

Roth came to NIH from the Veterans Administration Hospital in Bronx, N.Y., where he was an American Diabetes Association research fellow. There he worked with Drs. Solomon Berson and Rosalyn Yalow on developing new radioimmunoassays, a now-indispensable technique for measuring circulating hormones and numerous other biologically important substances. (Berson's and Yalow's unique contributions were recognized by the Nobel Prize in physiology or medicine to Yalow in 1977.)

While at the Veterans Hospital, Roth teamed up with Dr. Seymour Glick to measure growth hormone secretion and decipher its physiology. These studies led to more accurate diagnoses of growth hormone deficiency states as well as growth hormone excess states. These tests are still the "gold standard" against which all new tests are evaluated. This work also served as the foundation for Roth's research at NIH on the treatment of acro-

megaly, an excess growth hormone state that leads to abnormal bone growth and metabolic abnormalities. Roth also played a major role in developing radioimmunoassays for the hormones adrenocorticotropin and vasopressin.

In the late 1960's Roth, Gorden and Pastan showed that circulating insulin is not a uniform entity but takes several forms, some similar to insulin and others resembling an insulin precursor molecule. Many other laboratories followed up on this pioneering work, looking for evidence of heterogeneity in other circulating hormones. Roth and Gorden extended their studies to include growth hormone.

"Of perhaps greatest importance in Dr. Roth's work has been in the area of hormone action," wrote NIH deputy director for intramural research Dr. Ed Rall in 1979, when he was NIDDK's scientific director. "While many investigators, including his own mentors Berson and Yalow, had attempted to demonstrate directly hormone receptors on target tissues, it was Jesse Roth and his colleagues (Dr. Ira Pastan of NCI and Drs. Robert Lefkowitz and William Pricer) who were first successful, with the measurement of ACTH receptors on adrenal tissues in 1970."

Their seminal work on receptors showed the essential role of cell surface receptors in activating cells and showed that there are rapid changes in the number and avidity of receptors in response to changes in the environment and in disease states. The concept of a cell surface receptor represented an entirely new way of understanding the action of hormones on target cells. Roth's experiments served as a model for later studies showing that many other hormones also bind to receptors on the surface of cells. Roth and his collaborators also contributed significantly to our understanding of how the endocrine system regulates itself through feedback loops.

His studies with Pastan, Lefkowitz and Pricer in many ways opened the field of investigation into disease states involving insulin receptors. Roth and his collaborators found insulin receptor defects in diabetes complicated by obesity, in acromegaly, anorexia nervosa, lipotrophic diabetes, and in many other forms of insulin resistance. Their studies of the insulin receptor led them to uncover two new diseases, both characterized by extreme resistance to the effects of insulin. Those with severe insulin resistance type A have since been shown by Dr. Simeon Taylor, chief of NIDDK's Diabetes Branch, and colleagues to have specific inborn defects in the insulin receptor molecule, while those with type B have antibodies that react with and thereby disturb their insulin receptors.

More recently, Roth has begun exploring the evolutionary origins of polypeptide hormones, seeking to identify the lowest organisms having molecules related to these hormones and receptors.

Roth, who graduated from Columbia University in 1955 and took his M.D. from Albert Einstein College of Medicine in 1959, has garnered an impressive list of honors in his career, including the Lita Annenberg Hazen Award and the Mellon Award. From the Endocrine Society he received the Ernst Oppenheimer Memorial Award in 1974 and the Koch Award in 1985; and from the American Diabetes Association he received the Eli Lilly Award in 1974 and the Banting Award in 1982. In 1989, the University of Rome conferred an honorary doctoral degree in medicine to Roth, one of Italy's highest academic honors.

In addition to his own accomplishments, Roth has often been credited with playing a vital role in the careers of young investigators around the world and thus expanding endocrine research to centers in Europe, Israel and Japan, as well as around the United States. "There are many who make very important contributions in their lives. But those who do that and make major contributions to the development of other bright, talented people—that's an extra dimension that Jesse has truly excelled in as a scientist and scientific director," said Gorden.

Last December, more than 150 friends and colleagues gathered at the Bethesda Naval Officers' Club to wish Roth well in his new career at the Johns Hopkins School of Medicine, where he is professor of medicine and director of the division of geriatric medicine and gerontology. Joining him was his wife, Susan, and their children—Alisa, 17; Alexander, 16; and Alana, 11.

On behalf of Roth's many friends and colleagues, Dr. Simeon Taylor and Maxine Lesniak, Roth's long-time assistant, presented Roth with several gifts, beginning with a collection of books on American and Italian art, subjects for which Roth has a great appreciation. To tease Roth about the endowed chair that accompanies his new academic posts, he was also given a tacky, straight-backed chrome chair with yellow vinyl cushions, another object of his appreciation. Roth, who stands 6'4" tall and suffers from a temperamental back, found his best seated comfort at NIH in these chrome and vinyl chairs. His gift chair was engraved "The Jesse Roth Endowed Chair of Geriatric Management." Taylor and Lesniak are also gathering reprints of all of Roth's publications for binding. □

Pollen To Direct NIAMS Board

Geraldine Pollen has been named executive director of the National Advisory Board for Arthritis and Musculoskeletal and Skin Diseases.

She will be responsible for the day-to-day management of the board and will serve as liaison with the director and the Office of the Secretary in carrying out the responsibilities of the board. In addition, she will serve as executive secretary for the congressionally mandated arthritis and musculoskeletal diseases interagency coordinating committee and for the skin diseases interagency coordinating committee. She will also serve as special assistant to



Geraldine Pollen

the director, NIAMS.

Prior to this appointment, Pollen was chief of the Office of Information and Legislative Affairs, National Center for Nursing Research. She has been a program analyst in the Legislation and Analysis Branch, NINDS, and a program analyst and special assistant to the director, Division of Financial Management, NIH. She is the recipient of several special achievement awards including the NIH Merit Award. Pollen is also the coauthor of a book on teaching nutrition to children.

A native of New York City, Pollen received her undergraduate degree in political science from Barnard College and her master's degree in curriculum development and teaching from Columbia University. □

NIDR Asks for Volunteers

Volunteers are needed for an NIDR study of the extraction of third molars (wisdom teeth). Dental treatment for the removal of wisdom teeth will be provided free of charge in exchange for participation in clinical studies evaluating new pain medications. For more information call 496-8896. □

STEP Forum Discusses 'Talking with Reporters'

Since both intramural and extramural NIH are often involved in scientific breakthroughs, media interest in NIH is high. The Staff Training in Extramural Programs (STEP) committee is therefore presenting a forum on "Talking with Reporters."

Who should talk with reporters? What should you tell reporters? When should you release information? Where, why and how should you talk with reporters?

The forum is scheduled to be held on Wednesday, Mar. 27, from 1 to 3 p.m., in Wilson Hall, Bldg. 1.

The two-panel forum will emphasize using the proper protocols for reporting scientific breakthroughs. One panel consists of two reporters: Joseph Palca, *Science* magazine and Larry Thompson, the *Washington Post*, who will address how science news is reported; the differences between reporting policy issues, health issues, and scientific discoveries; and how NIH staff can increase scientific coverage in the media.

The second panel is comprised of two representatives from NIH communications offices: Constance Raab, director, Scientific and Health Communications, NIAMS, and Storm Whaley, NIH associate director for communications, Office of Communications, OD. They will discuss NIH policies on talking directly with reporters and how to be more effective when talking to them.

STEP forums do not require advanced registration and are open to all NIH personnel. Attendance will be on a space available basis. Additional information is available from the STEP program office, Bldg. 31, Rm. 5B44, 496-1493. □

ECS Presents Video Series

The Employee Counseling Services continues to present its new video series on work, career, and personal growth issues to the NIH community. The next presentation in the series is titled "Assertiveness Training."

This videotape is divided into four interconnected 50-minute segments. They will be shown on consecutive Tuesdays in March from noon to 1 p.m. in Conf. Rm. E/F located at Executive Plaza North. A question-and-answer session led by Kathleen Moore of ECS will follow each session. The segments are as follows:

- Mar. 5: "The Basics of Assertiveness"
- Mar. 12: "Getting Beyond the Basics"
- Mar. 19: "Assertiveness Strategies"
- Mar. 26: "Dealing with Others Assertively"

Look for details about the May 7, 14, 21 and 26 series entitled, "Stress Management for Professionals." Please contact the Employee Counseling Services, 496-3164, with your questions about this program. □

Good Idea Brings Cash

A suggestion that has saved NIH laboratories thousands of dollars during the past year and will save many thousands more has brought a cash award to its originator.

Daniel Reggia, a medical equipment repairer in Scientific Equipment Services, Biomedical Engineering and Instrumentation Program (BEIP), NCRR, saw a way to prolong the life and increase the efficiency of carbon dioxide incubators commonly used for growing cells. Laboratories had to replace many outdated or defective incubators yearly at an average cost of \$5,000.

Reggia suggested that BEIP stock and use small, newly developed carbon dioxide control devices that upgrade and renovate such incubators at less than one-fifth the cost of replacement. Electromechanical unit chief Johnny Robbins promptly acted on the suggestion and later nominated Reggia for a cash award.

Howard Metz, BEIP assistant director for scientific equipment services, recently presented the award with research instrumentation section chief Lewis Cascio and Robbins.



Daniel Reggia (l) accepts cash award from Howard Metz, BEIP assistant director for scientific equipment services. Looking on are research instrumentation section Chief Lewis Cascio and Johnny Robbins (r), electromechanical unit chief, who nominated Reggia for the award.

Nutrition Month Videofest Set

The Clinical Center nutrition department will present a series of nutrition videos during the month of March. Learn successful nutrition strategies and how to apply them. A registered dietitian will be available to answer questions after each of the presentations. All videos will be shown in the Little Theater from noon to 1 p.m.

- Mar. 5 "Eating to Live, Living to Eat"
"Good and Healthy"
- Mar. 14 "How to be a Low-Fat Eater in a
High-Fat World"
"Tomorrow's Kitchen"
- Mar. 19 "Eating Healthy for Weight Control"
"Eating Healthy for Heart Health"
- Mar. 28 "Eating Healthy When Dining Out"
"Eating Healthy for Life" □

FAES Summer Grants Available

The FAES will award grants at 3/4 the stipend paid to summer IRTA recipients for conducting research at the NIH this summer. An additional \$500 to cover travel and living expenses might be available if need can be demonstrated. High school, undergraduate, graduate and medical students who will work for a minimum of 8 weeks are eligible.

Applications are available in the FAES business office, Bldg. 10, Rm. B1C18, or by calling 496-7976. Completed applications including a description of the research to be performed and a supporting statement from the NIH sponsor must be received by Apr. 5.

Notification of the awards will be made to the NIH sponsor by the end of April. □

C Language Classes Planned

An unusual opportunity to learn C Language at no cost is being made available to NIH employees through the DCRT Computer Training Program. A sequence of classes at all levels is scheduled so a student can progress from the beginning to the advanced level in a 2-month period.

C is a portable general-purpose language that has become the language of choice for most advanced applications. C is particularly popular in the UNIX environment.

The C Language program consists of four parts: "Getting Started with C" on Mar. 11, 12, 13, 15 from 1 to 4 p.m.; "C Language Fundamentals" Mar. 18-22, 8:30 a.m. to 5 p.m.; "C Language Workshop" on Mar. 29, 10 a.m. til noon; "C Language Data Structures" on Apr. 2, 9, 16, 23, 30 from 9 to 11:30 a.m.

All classes will be taught in Bldg. 12A. Call 496-2339 for information or to reserve a space. □

Healthy Volunteers Needed

Healthy volunteers, male and female ages 30 through 65, are needed to participate in studies of endocrine secretion. Volunteers must be on no medications, and may participate in one or several studies. All volunteers will be compensated for their time. If interested, call the Clinical Neuroendocrinology Branch, NIMH, 480-0944. □

Extramural Grants Workshop Set

A workshop on extramural programs and grant support, designed to help postdoctoral fellows understand the research grant process, will be held in Lister Hill Auditorium, Bldg. 38A, on Friday, Apr. 19, from 8:30 a.m. to 5 p.m.

The workshop, sponsored by the National Institute of General Medical Sciences, is intended for intramural postdoctoral fellows, staff fellows, clinical associates, and research associates who will be leaving NIH during the next year. Others will be considered for participation if space allows.

The program will cover the types of federal and nonfederal support available to new investigators, the NIH review process, the fine points of preparing a grant application and appropriate persons to contact with problems or questions.

Small group discussions for answering individual questions will be led by experienced staff people from several institutes and the Division of Research Grants.

Application forms are available from intramural laboratory and branch chiefs. Applications must be returned by Mar. 18 and should be sent to Extramural Workshop, Westwood Bldg., Rm. 918.

For additional details, call Dr. Marcus Rhoades, 496-7137. □

TRAINING TIPS

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

Courses and Programs Starting Dates

<i>Management and Supervisory</i> 496-6371	
Using Animals in Intramural Research	4/4
Practical Management Approaches	4/17
Creativity with and through Groups	4/17
Hands-on Animal Techniques Workshop:	4/24
Rodent Techniques	
How To Write and Publish Scientific Papers	4/15

Special Courses 496-6211

Basic Employee Relations	4/24
Appropriation Law Seminar	4/17
Break the Smoking Habit	4/10

Personal Computing Training 496-6211

Welcome to Mac	4/1, 4/16
Introduction to WordPerfect (Mac)	4/3
Introduction to Microsoft Word (Mac)	4/8
Excel — Level 1	4/11
Mac Draw II	4/17
Introduction to DeltaGraph	4/15
HyperCard	4/19
3-Com PC Network-Level 1	4/1, 4/18
3-Com PC Network-Level 2	4/22
Introduction to Personal Computing for New Users	4/9, 5/1
Introduction to PC Keyboarding	5/3
Improving PC Keyboarding Skills	4/1
Introduction to DOS	3/29, 4/12
Introduction to WordPerfect 5.1	3/13, 3/25
WordPerfect 5.1 — Advanced Topics	3/19, 4/16
WordPerfect 5.0 to 5.1 Transition	4/29
Introduction to Harvard Graphics	5/1
Introduction to dBASE III+	4/8, 5/8
Intermediate dBASE III+	5/14
dBASE III+ — Advanced Topics	3/26
dBASE III+ — Programming	4/23
Introduction to Lotus 1-2-3, Release 2.2	3/18, 4/15
Lotus 1-2-3, Rel. 2.2 — Adv. Tops.	4/30

Office Operations and Administrative

<i>Systems Training</i> 496-6211	
Introduction to Working at NIH for New Employees	4/29
Consolidated Purchasing through Contracts	4/30

Personal Computer training is available through User Resources Center (URC) self study courses. There is no cost to NIH employees for these hands-on sessions.

The URC hours are:

Mon.-Thurs.	8:30 a.m. — 7 p.m.
Friday	8:30 a.m. — 4:30 p.m.
Saturday	9 a.m. — 1 p.m.

Training Center, DCRT, and other training information is available on WYLBUR. Logon to WYLBUR and type ENTER TRAINING

Hockey Players Needed

The NIH Hockey Club is encouraging increased participation in its Thursday evening skates. Until Mar. 31, any card-carrying R&W member can play with the group at Wheaton Regional Ice Rink. Just show up with your equipment at 10:30 and ask for Gary Murray. □

Supporting Family Caregivers Focus of Nurse Lecture, Mar. 6

"Research Issues: Supporting Family Caregivers," will be the topic of the Distinguished Nurse-Scholar lecture on Wednesday, Mar. 6 from 7 to 9 p.m. in Bldg. 1, Wilson Hall.

The lecture will be presented by Dr. May L. Wykle, Florence Cellar professor and chairperson of psychiatric, mental health and gerontological nursing and director of the University Center on Aging and Health, Case Western Reserve University.

The presentation is sponsored by the National Center for Nursing Research, the Clinical Center nursing department and the National Institute on Aging. For phone reservation or information, call (301) 496-1330. □

Scientists Lunch with Students

More than three dozen NIH scientists, including two Nobel Prize winners, met with some 1,800 high school juniors and seniors last month at a luncheon held as part of the American Association for the Advancement of Science's annual meeting.

Dubbed "Science Encounters '91," the gathering attracted NIH Nobel laureates Julius Axelrod and Marshall Nirenberg, among many other distinguished men and women pursuing science careers here.

The AAAS has for 11 years hosted a forum and luncheon exposing bright high schoolers to accomplished professionals in mathematics and the sciences. The NIH participants answered questions and helped the youngsters understand what a career in scientific research entails.

Following the forum, the students were invited to attend any session at the 157th national meeting of the AAAS, where some 6,000 scientists gathered to present more than 250 symposia, seminars, technical sessions and workshops. □

New Weight Watchers Session

Registration for the next session of Weight Watchers at NIH will be held on Friday, Mar. 22 at noon in Bldg. 31, Rm. 11A10. The meetings will be held Fridays, beginning Mar. 29, from noon until 1 p.m. in the same room. The 10-week session is \$120 for new members (payable upon registration) and includes program materials, weekly meetings, and musical entertainment. Current Weight Watchers members and lifetimers who are over goal can join at a discounted rate of \$105. Special foods are not required in order to participate in the program.

Remember, registration is Mar. 22 only—no one will be allowed to sign up before or after that date. Class size is limited to 30 people, and registration will be on a first-come, first-served basis. For more information, contact R&W, 496-6061. □



Dr. Roger J. Porter, NINDS deputy director and a captain in the Commissioned Corps, has been awarded the U.S. Navy Commendation Medal for his initiative and dedication to training residents, interns and medical students as a consultant to the National Naval Medical Center. A professor of neurology and adjunct professor of pharmacology at USUHS, Porter is an internationally known authority on epilepsy. He previously received the Department of Defense Meritorious Service Medal for pharmacology teaching programs he developed at USUHS.

NICHD Needs Volunteers

The NICHD needs normal volunteers between the ages of 10 and 14 who are in good health, and on no medication. Participants will be paid. For more information, call Dr. Gabriela Marin, 496-9853. □

NLM's Bob Schultheisz Mourned

Robert J. Schultheisz, a systems analyst in the Office of Computer and Communications Systems, NLM, died Nov. 28 following surgery for cancer.

He had worked at NLM since 1970, for the federal government for more than 30 years, and had served with the U.S. Marines. After graduating from Pennsylvania State University, he began his civilian career as a chemist with the Food and Drug Administration. At NLM, Schultheisz was initially employed in Specialized Information Services developing databases in toxicology. Most recently he had been part of the Development Branch of OCCS working on the MEDLARS III and the TESS (Technical Services System) projects.

Schultheisz's many friends among his coworkers remember him for his keen interest in people, amazing memory, and warm sense of humor. He is survived by his wife Lorraine, also an NIH employee, a daughter and two sons.

During Nutrition Month, Eat Well To Win

By Karen A. Donato and
Nancy W. Gaston

More people, more often are eating more of their food away from home. Does that sound like you? Busy lifestyle, tight work and travel schedules?

The U.S. Department of Agriculture's Nationwide Food Consumption Survey indicates that adults consume about 30 percent of their calories away from home; the National Restaurant Association cites that more than 43 cents of every food dollar is spent on food eaten away from home. These statistics might cause concern for those who are really "into" getting a nutritious, healthy diet. For NIH employees, however, the Guest Services, Inc. (GSI) Cafeteria Service on campus offers heart healthy entrees and other healthy menu selections. March is a good time to check them out, during Nutrition Month.

Healthy Eating at Cafeterias

With assistance from the NIH nutrition coordinating committee's nutrition education subcommittee, the NIH area manager of GSI has a long, continuous history of both supporting and promoting a healthy eating program for NIH cafeteria patrons. As early as 1982, salt-free vegetables, fresh fruits, a salad bar complete with fresh fruits and vegetables, natural drinks, whole grain bagels and breads, and baked chicken and fish have been available. Heart healthy lunch menu choices also have been a regular feature in the NIH cafeterias for several years.

"Stay Young at Heart"

One of the many efforts for more nutritious food choices in the NIH cafeterias began in September 1987, when NHLBI piloted a nutrition education project in cooperation with the GSI Cafeteria Service. The project was part of the activities commemorating NHLBI's 40th anniversary and NIH's 100th anniversary. The project, "Play Your Cards Right . . . Stay Young at Heart," offered heart healthy lunch menu choices that were lower in total fat, saturated fat, cholesterol, and sodium than most regular cafeteria food choices. Eleven recipes, selected and revised by NHLBI nutritionists and used in NHLBI's multiple risk factor intervention trial and the Lipid Research Clinic's coronary primary prevention trial, were featured for 1 month in all five NIH cafeterias. Recipe cards containing nutrient information also were available.

Because of the "Stay Young at Heart," program's appeal and overall success, GSI began offering it in all of their cafeterias in the Washington area, as well as in 22 states

nationwide in a variety of settings including business dining facilities, universities and schools, hospitals and retirement homes. Since then, particularly in September for National Cholesterol Education Month and in March during Nutrition Month, featured heart healthy entrees are offered in the NIH cafeterias.

Last September, 15 additional "Stay Young at Heart," recipes were developed for GSI to incorporate on their menu and now are part of their regular fare throughout the year. During March, the "Stay Young at Heart" recipes are highlighted with a red heart on the cafeteria menu boards.

Welcome to Your Cafeteria

Recently the GSI Cafeteria Service posted green and white boards, entitled "Welcome to Your NIH Cafeteria," at each cafeteria's entrance; they describe healthy menu choices and food preparation methods. Take a moment to read them the next time you enter one of the cafeterias.

Welcome To Your NIH Cafeteria

Guest Services is pleased to offer these options in each NIH cafeteria:

1. Whole Wheat and Multi-Grain Rolls and Breads for Sandwiches
2. Whole Grain Bagels and Bran Cereals
3. Lowfat Crackers or Melba Toast
4. Pasta, Rice or Potatoes
5. Vegetable Oil Margarine in Addition to Butter
6. Soybean Oil for Frying
7. Lowfat, Skim Milk, or Buttermilk Along with Whole Milk and Cream
8. Lowfat Yogurts and Nonfat Frozen Yogurt, and Lowfat Cottage Cheese
9. Lowfat, Low Calorie, Low Cholesterol Mayonnaise
10. Egg Substitutes for all Omelets and Other Products Containing Eggs
11. Baked Fish or Chicken
12. Frankfurters Made from Turkey
13. Sulfite-Free Produce and Salad Items
14. Our Salad Bar with Low Calorie Salad Dressings, Vegetables, Fruits, and Lowfat Cottage Cheese
15. Fresh Vegetables Steamed and Served without Butter or Salt
16. Fruits, Either Fresh or Canned
17. Vegetarian Meals
18. Decaffeinated Coffee and Tea
19. Natural Sodas and Juices
20. Special Promotions Focusing on Healthy Eating

HEALTHY CHOICE
Guest Services

New menu choices are always coming. For instance, two new menu innovations currently being tested are Healthy Choice single-serving frozen dinners (Bldg. 1 cafeteria) and Entenmann's fat-free bakery items (selected cafeterias). Should these items prove acceptable to NIH patrons, their regular addition to the cafeteria fare could provide other options for persons wanting low-cholesterol, low-fat, and calorie-controlled menu choices.

Nutrition Education Efforts

Efforts have been made by the GSI Cafeteria Service to supply nutrition education to its NIH patrons. In the past, various NIH nutrition publications have been available at the cash registers, particularly in March during Nutrition Month. In recent years, the NIH nutrition coordinating committee (NCC) developed posters and table tent cards to encourage patrons to attend nutrition seminars and other campus activities during Nutrition Month, and to reflect upon and modify their eating behavior and physical activity. Some Nutrition Month themes from past years include: "Reduce the Weight of Your World, Reduce Your Risk of Disease: Achieve Your Desirable Body Weight," "Stay Young at Heart," "Learn the Facts on Fat," "Follow the Dietary Guidelines Down the Road to Better Health," "Ways and Whys of Weight Control," "Nutrition and Exercise—Team up for Good Health . . . the Olympic Way," and "March for Good Nutrition: Take Steps Against Disease."

Nutrition Month Activities

The GSI cafeteria's efforts to provide nutritious menu selections to NIH patrons and its participation in nutrition education activities on campus peak each year in September (National Cholesterol Education Month) and in March for Nutrition Month. This March, watch for the cafeteria's nutrition month heart healthy specials. Daily announcements will appear on the cafeteria's menu boards. The cafeterias are also sponsoring a "Stay Young at Heart" recipe card promotion.

This year the NCC has adopted the theme "Play to Reduce Risk of Disease . . . Eat Well to Win." In support of this theme, the committee is sponsoring a nutrition month "game board" poster for display in the cafeterias and on bulletin boards around campus; a companion cafeteria table tent card with a diet and health assessment game inside for cafeteria patrons to play; and a NCC Scientific Seminar, "Physical Fitness and Obesity Research: Some Challenges for the 1990's" with speaker Dr. Judith S. Stern, professor of nutrition and internal medicine, University of California, Davis, on Mar. 7, 3-4 p.m., Bldg. 1, Rm. 151. For more information, call 496-9281. Other activities are being sponsored by the Clinical Center nutrition department. For more information call 496-3311. □