

"The Second
Best Thing
About Payday"

The NIH Record

The Atlas/Johnson Cases

Marrow Donor Drives Benefit NIH Center, Patients

By Rich McManus

While they haven't yet proven successful for leukemia patient Allison Atlas, the recent drives to recruit bone marrow donors in the Washington area have been a boon to the National Marrow Donor Program (NMDP), which registered some 6,000 new members as a result of efforts on her behalf. Similar drives on behalf of JoAnne Johnson to recruit African-American donors resulted in more than 2,500 new NMDP donors.

The highly publicized recruitment drives began last fall, when flyers advertising the plight of the two leukemia patients began springing up. Soon thereafter, local television newscasts dramatized the need for marrow donors.

NIH played a key role in both drives, putting up money to have potential donors' blood tissue typed (screened for compatibility) and offering many hours of volunteer time for blood drawing and processing.

At a drive Nov. 19 for Atlas, conducted at the Jewish Community Center in Rockville, some 750 samples were drawn in a matter of hours.

"That might be the single largest sample tested in one day," estimated Dr. Harvey G. Klein, chief of the department of transfusion

medicine (DTM) at NIH. "It's a real *tour de force* to test 700 at a crack."

Adding to the enormity of the workload was the need for speed—samples must be processed within 24 hours. In order to accomplish this task, the NIH Marrow Donor Center (part of NMDP) relied heavily upon the HLA typing laboratory in DTM.

"The Atlas family became aware of our donor center as a result of our work with the 'Help Save Brian' campaign in Gaithersburg," recalls Bernice Loiacono, director of NIH's marrow recruitment center for the past 3 years. "That was our first community-NIH cooperative drive. We anticipated 75 to 100 participants and were astounded when more than 300 showed up. When more than 1,000 people arrived at the first drive on behalf of Allison Atlas, we realized that obtaining the funds necessary to cover the testing costs would be our biggest challenge."

Relying on volunteer nurses from the NIH Plateletpheresis Center and other community volunteers, most of those 1,000 Atlas donors were drawn. Donors were turned away only when typing supplies ran out.

(See **DONOR**, Page 11)

How To Enhance Director's Job

NIH Director's Pay, Authority Dominate Panel Agenda

By Carla Garnett

Pay raise and other methods of enhancing compensation continued to dominate discussion at the most recent meeting of the advisory committee on the NIH, which convened Feb. 26 in the Stonehenge conference room of DHHS's Hubert H. Humphrey Bldg.

Comparison of other government agency pay systems—specifically those of the National Institute of Standards and Technology (NIST) and the Uniformed Services University of the Health Sciences (USUHS)—and how NIH might fare by adopting a similar system, sparked lively debate among the 16-member panel that included NIH acting director Dr. William Raub, NIAID director Dr. Anthony Fauci and former NCI lab chief Dr. Maxine Singer.

DHHS secretary Dr. Louis Sullivan greeted the committee that is chaired by assistant secretary for health Dr. James Mason and charged with the primary responsibility of suggesting ways to strengthen the NIH director position, which has been

vacant since Dr. James B. Wyngaarden resigned in July 1989.

"Again I'd like to extend my appreciation to all of you for agreeing to work with us on this," Sullivan said. "I view (finding an NIH director) as critical to our overall efforts to address issues at NIH. We are committed to working to solve the critical health issues at NIH."

Consensus from the two previous meetings of the advisory committee has led to at least two definite suggestions awaiting implementation:

Regularly scheduled meetings have been established between the NIH director, the DHHS secretary and the assistant secretary for health—this is the so-called "access" issue;

Provisions are included in President Bush's 1991 budget proposal that would give the NIH director two new administrative tools—a \$20 million discretionary fund for new ini-

(See **DIRECTOR**, Page 10)

NCI's Waldmann, Minna Claim 1989 Milken Awards

Two NCI scientists received awards from the Milken Family Medical Foundation for 1989.

Dr. Thomas A. Waldmann, chief of NCI's Metabolism Branch, received the \$250,000 award for basic cancer research. Waldmann was honored for his pioneering work in the study of immunodeficiency diseases and auto-



Dr. Thomas A. Waldmann

immunity. He was the first researcher to describe immune cell suppression in humans. This discovery led to an understanding of the immune system and its ability to respond to a variety of antigens. Subsequent investigations

(See **AWARDS**, Page 2)

Watch Your Weight

March Is Nutrition Month

By Patricia Blessing

A century ago, being obese was considered a status symbol—a way to show one's peers that you were wealthy enough to buy any foods you desired. It is now recognized that obesity is a risk factor associated with several chronic diseases. Some 34 million adults ages 20 to 74 are obese, with the highest rates among the poor and minority groups.

To focus attention on obesity, the NIH nutrition coordinating committee (NCC) and its nutrition education subcommittee are celebrating National Nutrition Month in March with the theme "Reduce the Weight of Your World, Reduce Your Risk of Disease: Achieve Your Desirable Weight." The NCC chose this theme to emphasize that obesity is prevalent in many cultures around the world and is one of the most prevalent diet-related problems in the United States.

The NCC, which has representatives from all NIH institutes, centers and divisions, is sponsoring several scientific seminars on

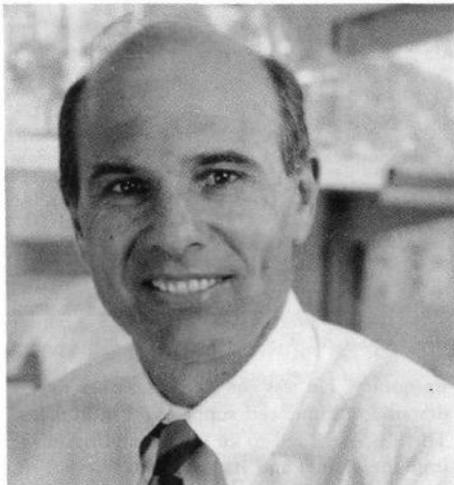
(See **NUTRITION**, Page 4)

AWARDS

(Continued from Page 1)

in his laboratory have stimulated the development of innovations in the diagnosis and monitoring of therapy in lymphoid neoplasia.

Most recently, Waldmann succeeded in characterizing the interleukin-2 (IL-2) receptor and its role in both normal and abnormal cells. The IL-2 receptor may be the key to the



Dr. John D. Minna

development of therapies for several immune disorders and cancer. Waldmann joined NCI in 1956.

Dr. John D. Minna, chief of the NCI-Navy Medical Oncology Branch, was awarded \$50,000 for his clinical research on the genetics of cancer. His work focuses on the role of chromosomal defects and autocrine growth factors (hormones that are produced by and stimulate the same cell) in the clinical and pathological behavior of human lung cancer. Minna has been at NIH since 1969.

The Los Angeles-based Milken Foundation sponsors several national and international medical care programs, supports basic research in a variety of chronic and fatal diseases, and funds efforts to transform research advances into useful techniques for medical professionals and institutions. □

Judo Beginners Class

The NIH Judo Club will hold its spring beginners class on Tuesdays and Thursdays from 6:15 to 7:30 p.m. at the Malone Judo Center in Bldg. 31 starting on Thursday, Apr. 5. The cost for 10 weeks is \$35. For information contact Stephanie Harrison, 496-9490. □

Stride Program for 1990 Unveiled

The NIH Training Center announces the Stride Program, 1990.

The Stride Program provides qualifying employees the opportunity for development, career change and advancement, while at the same time helping NIH meet its staffing needs. The program's aim is to provide a combination of on-the-job training, academic courses, and selected short courses to prepare individuals for placement in targeted administrative positions.

The 1990 occupations targeted for training are: computer specialist (NCI); grants management specialist (NIAMS); budget analyst (NIDCD); grants management specialist (NIEHS); budget analyst (OD/DFM).

Application packets are available in the Development and Training Operations Branch, DPM, Bldg. 31, Rm. B2C29 or at one of the information sessions, 11 a.m.-12 p.m., listed below.

Mar. 21, Westwood Bldg., Rm. 42

26, NIEHS, 12-1 p.m., Bldg. 18

27, EPN, Conf. Rm. H

29, 38A, Rm. BIN309

Apr. 2, Bldg. 10, Bunim Conf. Rm. (9th fl.)

5, Bldg. 31, Conf. Rm. 4

Applications must be completed and received in the Development and Training Operations Branch, Bldg. 31, Rm. B2C29 by close of business, Apr. 16. □

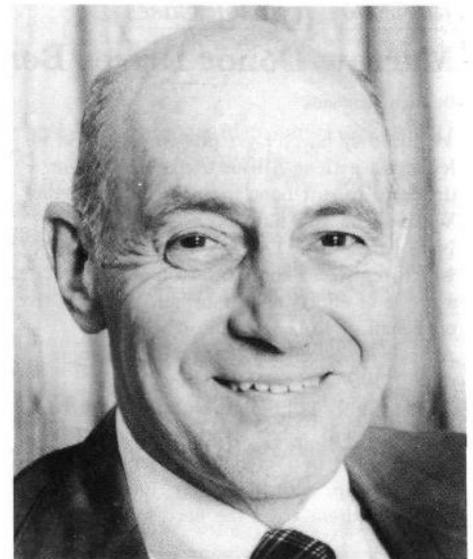
Furniture Donations Sought

It takes more than a roof over your head to feel at home: It helps to put something under that roof—namely, furniture.

The Fogarty International Center's Foreign Scientist Furniture Loan Service (FSFLS) is once again sounding the call for donations. The FSFLS loans privately donated furniture to some of the more than 2,000 foreign scientists carrying out research on the NIH campus.

The FSFLS primarily needs dining tables, chairs, chests of drawers, desks and beds. Donations are tax-deductible and can be made by contacting Helena Safarova, FSFLS manager, Bldg. 35, Rm. B301. Her phone number is 496-6318.

An earlier call for help from NIH staff members drew such a good response that all requests for sofas have been filled. However, the items listed above are urgently needed. Suitcases don't make good desks, no matter how high you stack them. □



On Feb. 23, the Johns Hopkins Society of Scholars welcomed NIA director Dr. T. Franklin Williams into its prestigious ranks. Believed to be the first such association in the country, the society inducts former Hopkins' postdoctoral fellows who have gained marked distinction in their fields of physical, biological, medical, social, or engineering sciences, or the humanities, and for whom at least 5 years have elapsed since their postdoctoral work.

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, 1990.

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

Editor
Richard McManus

Assistant Editor
Anne Barber

Staff Writer
Carla Garnett

Editorial Assistant
Marilyn Berman

Staff Correspondents:
CC, Elynn Pollack
DCRT, Christine Pennella
DRG, Sue Meadows
DRR, Michael Fluharty
DRS, Jim Doherty
FIC, Louise Williams
NCI, Patricia A. Newman
NCNR, Gerry Pollen
NEI, Claudia Feldman
NHLBI, June Wyman
NIA, Margo Warren
NIAID, James Hadley
NIAMS, Barbara Weldon
NICHD, Carol Florence
NIDCD, Karen L. Jackson
NIDDK, Eileen Corrigan
NIDR, Mary Daum
NIEHS, Hugh J. Lee
NIGMS, Wanda Wardell
NINDS, Carol Rowan
NLM, Roger L. Gilkeson

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

Four Eyes Better Than Two

NEI Scientists Seek Clearer View of Lens

Two of the world's leading experts in the field of lens crystallins are now working together at the National Eye Institute.

Dr. Stanislav I. Tomarev, a visiting associate from the N.K. Koltzov Institute of Developmental Biology at the U.S.S.R. Academy of Sciences, arrived last October and will be at NIH until the fall of 1990. Dr. Joram Piatigorsky, chief of NEI's Laboratory of Molecular and Developmental Biology, is collaborating with Tomarev to gain a better understanding of lens crystallins, soluble proteins that are responsible for the transparency of the lens. Determining how the lens is formed and how crystallins contribute to lens transparency may lead scientists to new discoveries about the formation of cataracts.

Piatigorsky's research has focused on the molecular biology of lens crystallins, particularly the evolution and expression of their genes. Research by Dr. Graeme Wistow and Piatigorsky at NEI has shown that certain crystallins are identical or very similar to those of functional enzymes found elsewhere in the body.

For example, the gene for delta crystallin, a major structural protein of bird and reptile lenses, encodes argininosuccinate lyase, an enzyme in the urea cycle. Prior to these discoveries, researchers thought that the crystallins were strictly structural proteins unique to the lens.

"These molecular biologic studies of such enzyme/crystallins have profoundly affected our thinking about lens evolution," said Piatigorsky.

"Dr. Tomarev is well-known for his work on lens crystallins of the frog and he is now working with squid crystallins," continued Piatigorsky. "He has established that the enzyme glutathione S-transferase (GST), or a close relative of it, is the major crystallin of the squid lens. However, the exact role of this enzyme in the squid lens is unknown." GST is an enzyme found ubiquitously in animal and plant cells.

"Dr. Tomarev has also isolated four different genes that encode these squid lens proteins and he will be studying them at NIH," said Piatigorsky. For his research, Tomarev brought some 200 squid eyes that he had collected from a species found in the Pacific Ocean.

"Our joint project on squids is particularly interesting to me, since so little is known about invertebrate crystallins and virtually nothing is known about the crystallin genes of invertebrates," noted Piatigorsky. "Although vertebrates and cephalopods such as squids have superficially similar eye structures, at the



Sharing observations on their studies of lens crystallins are Dr. Joram Piatigorsky (l), chief of NEI's Laboratory of Molecular and Developmental Biology, and Dr. Stanislav I. Tomarev, a visiting scientist from Russia.

protein level their crystallins are completely different. The squid studies with Dr. Tomarev will complement our investigations of jellyfish crystallins here at NIH." □

Workshop on Myofibril Assembly

Myofibrils are the highly organized filaments of muscle cells. The major contractile proteins of these structures are well described. Now researchers are using techniques of molecular biology to learn how myofibrils assemble and maintain themselves. To provide a review of the current state of knowledge in this area, the National Institute of Arthritis and Musculoskeletal and Skin Diseases is sponsoring a workshop, "Molecular Biology of Myofibril Assembly," Apr. 2 and 3 at the Bethesda Marriott Hotel, starting at 8:30 a.m. both days.

The workshop will include sessions on the assembly and maintenance of various myofibril components. Also addressed will be the use of the myofibril as a model for cellular and molecular assembly mechanisms and future research opportunities in this area.

Registration for the conference is \$80 to cover symposium materials and meals. For registration forms and information, call 468-MEET. □

R&W Has Circus Tickets

Ringling Bros. and Barnum & Bailey Circus will be in town at the D.C. Armory Apr. 12-23. R&W has tickets to 12 of the performances. Tickets can be purchased at any R&W. For more information call the R&W Activities Desk, 496-4600. □

Children and Hospitals Week

Final plans are now under way for the Clinical Center to celebrate the 11th annual Children and Hospitals Week, Mar. 25-31. Sponsored by the Association for the Care of Children's Health, the week is a public awareness campaign focusing on the unique needs of children and families in the health care system. The theme this year once again is "Commitment to Caring."

Staff members from both the nursing and patient activities departments have been collaborating to bring some exciting events to CC staff, patients and their families. Tentative plans are as follows:

Tuesday, Mar. 27

1-2 p.m. Greg Manusky, linebacker for the Washington Redskins, will visit the CC to speak in the 14th floor assembly hall before visiting several pediatric units. All are invited.

3-5 p.m. Pediatric intensive care unit open house.

Wednesday, Mar. 28

1:30-2:30 p.m. Ronald McDonald will visit the playroom to perform and then visit individual pediatric units.

Friday, Mar. 30

10 a.m.-3 p.m. Poster display in the 14th floor assembly hall of pediatric posters (research and clinical).

2 p.m. A Conversation with Dr. Veronica Feeg, editor of *Pediatric Nursing*, followed by a reception for all pediatric nursing staff in the 14th floor assembly hall.

Also, there will be a Children and Hospitals Week picture display all week in the first floor lobby to showcase the very special ways that the CC cares for children and families at NIH. Watch for flyers for further details. □

Retirement Planning Seminar

The Recruitment and Employee Benefits Branch, DPM, is offering another Retirement Planning Seminar for NIH employees. The seminar will be held Apr. 16-19 in Wilson Hall, located on the 3rd floor of Bldg. 1.

A personnel bulletin announcing this seminar will be distributed desk-to-desk. The bulletin gives employees detailed information about the seminar. Because of the limited seating in Wilson Hall, only those NIH employees who register and are notified by the Recruitment and Employee Benefits Branch that they may attend may come to the seminar. No walk-ins will be permitted.

Employees who want more information about the seminar should contact their servicing personnel office. □

NUTRITION

(Continued from Page 1)

various aspects of obesity as well as displaying posters and table top cards in the cafeterias, which contain a weight-for-height table for employees to estimate their desired weight.

Earlier this month, two NCC seminars were held: Dr. Barbara C. Hansen, vice president for graduate studies and research, University of Maryland-Baltimore, presented a talk on "Obesity and Associated Risk Factors for Diseases"; and Dr. John G. Kral, professor of surgery, State University of New York Health Science Center at Brooklyn, discussed "Malignant Obesity: Pathophysiology and Treatment" (cosponsored with NIDDK).

On Mar. 21, from 12:30 to 2 p.m., the NCC is sponsoring two seminars in Bldg. 10's Visitor Information Center, Little Theater. The first seminar will be presented by Dr. Shiriki Kumanyika, associate professor of nutritional epidemiology, Penn State, on

One of the major recommendations for dietary change in the 1988 Surgeon General's Report on Nutrition and Health concerns energy and weight control:

"Achieve and maintain a desirable body weight. To do so, choose a dietary pattern in which energy (caloric) intake is consistent with energy expenditure. To reduce energy intake, limit consumption of foods relatively high in calories, fats and sugars and minimize alcohol consumption. Increase energy expenditure through regular and sustained physical activity."

"Racial/Ethnic Differences in Obesity and Associated Cardiovascular Morbidity." The second seminar will feature Dr. Alex F. Roche, professor, department of community health, Wright State University School of Medicine, who will discuss "Measurement of Total Body Fatness."

In other Nutrition Month activities, the GSI Cafeteria Service, with assistance from NHLBI, will feature heart healthy lunch specials, lower in saturated fat, cholesterol and sodium, at all NIH cafeterias. Recipe cards containing the amount of these nutrients and the calorie content for the specials are available throughout the month of March. These recipes were developed by NHLBI nutritionists and were used in two clinical trials to help participants lower their blood cholesterol.

In addition, the Clinical Center's nutrition department and educational services office will

DESIRABLE BODY WEIGHT RANGES

Height Without Shoes	Weight Without Clothes	
	Men (pounds)	Women (pounds)
4'10"		92-121
4'11"		95-124
5'0"		98-127
5'1"	105-134	101-130
5'2"	108-137	104-134
5'3"	111-141	107-138
5'4"	114-145	110-142
5'5"	117-149	114-146
5'6"	121-154	118-150
5'7"	125-159	122-154
5'8"	129-163	126-159
5'9"	133-167	130-164
5'10"	137-172	134-169
5'11"	141-177	
6'0"	145-182	
6'1"	149-187	
6'2"	153-192	
6'3"	157-197	

Note: For women 18-25 years, subtract 1 pound for each year under 25.

Source: Adapted from the 1959 Metropolitan Desirable Weight Table.

sponsor a nutrition fair that will focus on choosing foods that meet dietary guidelines when consumers go grocery shopping, cook or eat out. Employees can bring their favorite recipe to the fair and a dietitian will suggest healthy modifications. The fair will be held Mar. 22 and 23 in Bldg. 10, Visitor Information Center, from 11:30 a.m. to 1:30 p.m.

Simply stated, obesity is defined as excess body fat. Yet, there is no clear-cut definition that describes what degree of excess body fat will increase a person's health risks. One of the difficulties is accurately measuring body fat content. A common method frequently used is the weight-for-height table, which is based on survey populations and therefore can only provide an estimate of desirable weight ranges.

Increasing scientific evidence suggests that if you are obese, your risk of developing cardiovascular disease, diabetes, hypertension, gallbladder disease and certain types of cancer is increased. A number of NIH institutes support research studies on various aspects of obesity ranging from the genetic and physiologic factors that influence weight gain to behavioral intervention strategies used to treat or prevent obesity in children, adolescents and adults.

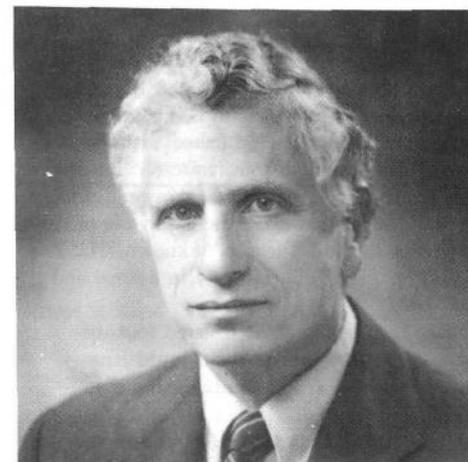
Although rapid scientific advances in the field of obesity research have occurred, the causes of obesity and ways to treat and prevent

it continue to be investigated. Yet, all agree that to lose weight, a person must consume fewer calories than the body burns or uses. To accomplish this, a person needs to eat foods with fewer calories, increase physical activity or both. Exercise burns calories, increases the proportion of lean to fat body mass and raises the body's metabolic rate—all of which are important factors in attaining and maintaining desirable weight. □

CC Ultrasound Paper Acclaimed

Dr. Brian Garra, former researcher in the Clinical Center's diagnostic radiology department (DRD) and principal author of the manuscript, "Quantitative Ultrasound Detection and Classification of Diffuse Liver Disease: Comparison with Human Observer Performance," recently won the 1990 Stauffer Award for having written the best clinical paper to be published in *Investigative Radiology* last year.

Garra left NIH 2 years ago to become chief of ultrasound at Georgetown; he returns intermittently to the CC to continue his work on tissue characterization using ultrasound. Other authors of the winning paper include DRD employees Dr. Thomas Shawker, Mary Bradford and Maryann Russell. A plaque and monetary honorarium will be presented to Garra next month in Minneapolis at the annual meeting of the Association of University Radiologists. □



Dr. Phillip Gorden, NIDDK director, was recently named Vanderbilt University School of Medicine's distinguished alumnus for 1990. Along with a medal, Gorden received a plaque citing him "for his high achievement through outstanding leadership and contributions to the profession as distinguished physician, clinical scientist and progressive leader."

Guidance Counselors Courted**NIH Launches Creative Recruitment Effort Aimed at Students**

By Carla Garnett

How can NIH recruit more young scientists and encourage more students into biomedical research careers? According to Levon Parker, director of NINDS's Summer Program in the Neurosciences, one of the best ways to get the message to students is through their school guidance counselors.

"The counselors are the real key, the link to making the programs work," said Parker, who spoke at a Mar. 5 workshop on NIH research training opportunities for students. "We've talked to the students before, but we felt that a key element was missing—the counselors."

"NIH has focused on encouraging scientific literacy and stimulating the interest of young people in biomedical research careers," said workshop moderator Bonnie Kalberer, who directs special programs in the Office of Science Policy and Legislation (OSPL). "This workshop is one of several activities to inform students and educators about the excitement and opportunities in biomedical and life sciences research."

Held exclusively for Washington metropolitan, Frederick and Baltimore area high school, college and university counselors, the ½-day workshop involved participants from several institutes including NIGMS's director Dr. Ruth Kirschstein, who gave opening remarks, and NICHD's Tanya Rutledge, an HHMI-NIH research scholar who gave a student's perspective of working in biomedical research at NIH.

Edward Donohue, deputy director of NINDS's Division of Extramural Activities, discussed the availability of NIH funds to support minority students pursuing biomedical research careers.

NIH associate director for intramural affairs Dr. Philip Chen recalled his own recruitment to biomedical research as a physics major: "I was attending a small college in Massachusetts and a counselor told me about some grants that were available in the area of pharmacology. That's how I was urged into a research career."

Recently, NIH has seen a decline in the number of students applying to its training programs. The workshop, coordinated by OSPL, the NIH Division of Equal Opportunity through Hispanic Program manager Victor Canino, and NINDS's Equal Employment Opportunity Office, was part of a larger effort to boost participation in these programs.

"We're having the most problems recruiting for the Federal Junior Fellowship Program," noted Mattie L. Jackson, personnel staffing specialist in NIH's Division of Personnel Management.

The junior fellowship program, one of the six programs covered at the workshop, allows high school graduates to work in chosen fields as trainees at NIH and other federal agencies during college breaks and vacations.

For most junior fellows, participating in the program means never having to go summer job shopping for the first 4 years of their undergraduate college careers. Since the work must also be directly related to the junior fellow's major subject in school, the program also provides invaluable, and for college students, usually hard-to-find, in-field experience.

Similar programs include the Stay-in-School Program, the 1040 Program and Summer Programs in Biomedical Research. Two more programs—the Sobel Summer Research Program and Predoctoral and Postdoctoral Fellowships—were also described in detail at the workshop, which comprised various speakers in addition to discussion of each program and helpful hints for applying, and a general question-and-answer period.

"As a person who's new to this area, I found it very helpful to learn what programs are available," said Carol A. Freeman, who has counseled juniors and seniors at Georgetown Preparatory High School in Rockville for 6 months. "The individual speakers were very informative and very receptive to questions."

Peter Fischer, who counsels students at the French International School in Bethesda, agreed: "The workshop was great. NIH programs have been something our students have been interested in for a long time. I'd never really known the full scope of the programs. The speakers were fascinating."

One of the most helpful aspects of the workshops, according to attendees, was the targeting of high school as well as college students.

"Coming to the meeting, I was really worried that everything was going to be focused on doctoral candidates," said Fischer. "I was heartened to see how much emphasis was being put on secondary schools, starting the students out and getting them interested in biomedical research."

The meeting also offered a chance for counselors to suggest ways that NIH could more effectively reach and recruit young students interested in science.

Thirteen-year veteran counselor Jacqueline Lovinggood of H.D. Woodson High in the District had several ideas:

"If the workshop could be held right after the Christmas holidays, it would probably be a lot better for most students and counselors—

right now we're in our busiest season. Also, the announcements and preliminary information should be sent directly to the attention of the guidance departments at the schools to avoid gaps in communication."

Other suggestions that may be implemented include distribution of profiles of students who had been accepted into the various programs and disbursement of additional transportation stipends for students who travel greater distances from NIH's main campus.

Several counselors invited NIH panelists to come to career days held at their schools. Parker responded with an invitation to counselors: "We'll be happy to come to your schools' career days and we'd like you all to come back here during the summer so you can see a lot of the students in action." □



Dr. Sidney A. McNairy Jr., director of the Research Centers in Minority Institutions (RCMI) Program, delivered the opening remarks at a symposium entitled "HIV and AIDS: Designing the Next Generation of Antiviral Agents," sponsored by Hunter College's Center for Study of Gene Structure and Function. The center is supported by the National Center for Research Resources' RCMI program.

Normal Volunteers Needed

The Developmental Endocrinology Branch, NICHD, is recruiting healthy women as well as infertile women for clinical research studies. Candidates must be 18-35 years old and have regular menstrual cycles. They should not be currently taking chronic medication, including birth control pills.

Studies last for one menstrual cycle and require frequent blood drawing and an endometrial biopsy. Compensation is available. For further information, call 496-4244. □

*From Researcher to Director and Back***Donald Fredrickson Returns to NIH, Again**

By Anne Barber

Starting out as a clinical associate in 1953 and later becoming the NIH director, Dr. Donald S. Fredrickson is back working in the same laboratory where he began his 28-year career at NIH.

"Coming back, after being at NIH all these years, is a treat and a privilege for me. I am pleased to be connected to my old lab. It helps to keep me up-to-date with cholesterol research, which is where I started when I first came to NIH."

Fredrickson began his long medical career in the National Heart Institute's Laboratory of Cellular Physiology and Metabolism, where he later became clinical director and also served as head of the Molecular Diseases Branch. He later became director of NHI, and director of intramural research for the institute before becoming NIH director.

"I think I wore all the hats in the heart institute at one time or another during my career," he says.

His earliest research interests centered on the metabolism of sterols. He focused on the structure of plasma lipoproteins, their importance in the transport of fats and the genetic factors regulating their metabolism and concentration in blood. Today, Fredrickson is considered one of the world's authorities on how cholesterol and fats are handled by the body.

Along with returning to NHLBI as a researcher in his original field of study, Fredrickson is also a scholar at NLM these days. Both are volunteer jobs. He divides his time between NIH and a consulting practice where he works mainly with the European community and Africa as an expert looking at their medical research.

When not traveling abroad, which he does frequently, Fredrickson can be found either in the lab on the 7th floor of Bldg. 10 or in a study near the reading room at NLM, where he is busy writing and collecting his papers.

"I still do a lot of observing of NIH, for I've a huge investment of time and affection in this campus. I enjoy my position here now without responsibility for NIH, but I still fuss and worry about it, of course, like all good alumni," he continues.

"NIH is a unique and remarkable place. It is a great scientific organization yet embedded at the interface with the public's support for research. This is where the relationship problems between high science and high government and between society and research

have to be played out. Civilization has a big stake in the successful outcome.

"I don't attempt to do 'wet lab' research. I enjoy going to clinic and lab meetings and roaming the halls of my old haunts in Bldg. 10 when I'm in town. You can learn a lot this way. It is necessary to keep those connections open if you want to be a good consultant because science is rapidly changing."

As part of his involvement with the European community, Fredrickson will be reviewing what has happened to regulation of recombinant DNA research since NIH established guidelines involving recombinant DNA research in 1975.

"In June 1976, we sent a copy of the first NIH Guidelines in diplomatic pouches to every nation in Europe," he says. "Now, the European community has begun to seek coordination of research on engineering and the human genome. We need to understand the outcomes for they also affect our own research and our biotechnology industry."

"I am pleased to note that in Europe they are beginning to hold consensus conferences, which were started here at NIH. In fact, they are often called 'NIH consensus' conferences. It is good to have the recognition accorded to NIH," he says proudly. "Just one of our contributions to the world and science."

According to Fredrickson, Thomas Parran is really the parent of modern NIH. Although NIH was established in 1930, it was Parran,



Director of the National Heart Institute, Fredrickson meets with his staff. Seated next to him is Dr. Robert W. Berliner. Standing are (l to r) Drs. Morris Stampfer, John C. LaRosa, Dr. Robert Keimowitz and Dr. Bryan Brewer. That was in 1967. Today, Fredrickson is back at NIH working in Brewer's laboratory.



Dr. Donald S. Fredrickson works in his laboratory at Bldg. 10, June 20, 1969. At that time he was serving in the Molecular Diseases Branch, National Heart and Lung Institute.

while serving as Surgeon General (1936-1948), who developed strategies to mount a war on chronic diseases. After World War II ended, Parran had everything in place and thus NIH was the first agency with the authorities to supply research support for universities. NIH, along with the National Science Foundation, continues to lead today with more than 60 percent of total grants given in the biomedical sciences.

"Parran—in my view, the greatest of the modern surgeon generals," he continues, "sent Lewis R. Thompson (NIH director, 1937-1942), on a trip to Europe to look over the design of European labs. Our earliest structures bear a close resemblance, in Georgian architecture, to the first buildings of the Pasteur Institute. On my last trip there, I was struck by the resemblances."

Fredrickson continues: "NIH has a fascinating history particularly when you analyze all that has happened to that single institute since its establishment in 1930. By 1953, there were 10 institutes and it continues to grow. Take for example, NIADDK. It has been split many times over into new institutes. While we don't like Congress to do that, it really is a form of flattery. It shows they believe our model is one that works."



Model E Ultracentrifuge (lipoprotein analyses) in as director of intramural research and chief, institute.

helped him find my replacement—Ted Cooper.” Cooper went on to become DHEW’s assistant secretary for health in 1975. “Things were simpler then, not as political as it is now.

“NIH always has had a political side to it,” he said. “We’ve had enormous political support. You can’t remove politics from here at this level. NIH is a creature of Congress more than any other agency largely because Congress has always seen that we got the money we needed even when the administration making the budgets stopped keeping pace with growth and inflation.

“You can’t do basic research without public support. That is as true today as it always has been. Basic science depends on public money and that is true in every country, not only the United States.”

Reminiscing, Fredrickson recalled a meeting he initiated in Chicago in 1967 allowing America’s heart surgeons to meet with Dr. Christiana Barnard, who performed the world’s first heart transplant. “When Barnard got up to speak, there were beads of sweat all over his face because his audience was made up of mostly American surgeons who had taught him all he knew. I thought then his achievement was a technical *tour de force*. I think now that I was wrong about that. I’ve often been too conservative about medical inventions.”

Recalling the most exciting time of the past, he said, “Discovering a new disease—like Tangier disease, named for an island in the Chesapeake Bay.” It was on this island that Fredrickson was called in as a consultant to take a look at a young boy’s condition.

“When I visited the island and had the opportunity to check other children in the

family, I found that his sister had bright orange tonsils, a hither-to unknown example of a problem due to massive tissue storage of cholesterol. I realized that here was something that had not ever been described.

“It is like seeing a mountain no one else has ever climbed,” he continued. “The gratification you can get out of this side of science—the putting of one more tile in the endless mosaic—makes it the most rewarding profession in the world.

“The original children are still patients here at NIH. There are now about 50 cases around the world. But you know, we still don’t know after 30 years the cause, in molecular terms, of Tangier disease.

“I allowed myself to be distracted from it over the years, but nothing can replace or quite match the game of science itself.”

Fredrickson worked under five department secretaries while serving as director of NIH. When Joseph A. Califano Jr. came aboard, he told Fredrickson, “I’m not sure I want to keep you.” Fredrickson replied, “I understand, Mr. Secretary, you might want to bring your own people in to work for you but I want you to grant me one thing—that is just 2 hours to tell you what NIH is all about.

“I had my time and when he later came to NIH for a visit, he announced from the podium, ‘I looked everywhere for the best possible director for NIH and I discovered he was already here.’”

According to Fredrickson, it was in 1971 that the job became more politicized. At that time, the administration wanted to move the cancer institute out of NIH. Robert Marston, NIH director at the time, fought that battle and won but it cost him his job in the end.

“Not that every President shouldn’t have a choice,” he says, “but policies change with each administration. And the stewardship of NIH should never be a political power.”

Fredrickson was born in Canon City, Colo., and attended the University of Colorado for 1 year prior to moving to the University of Michigan, where he received both his B.S. and M.D. degrees. After graduation, he went to Boston for training in internal medicine and clinical and laboratory research at the Peter Bent Brigham Hospital, the Massachusetts General Hospital, and Harvard Medical School. It was in 1953 that he moved to the National Heart Institute as one of the first class of clinical associates to open the Clinical Center. He remained at NHI from 1953 to 1974, first as staff scientist, later section head, and then chief of the Molecular Disease Branch. While simultaneously maintaining his research, Fredrickson also served as the heart institute’s clinical director (1961-1966), institute director (1966-1968) and director of



In September 1973, Fredrickson and Dr. Robert Levy of NIH visited a lipoprotein laboratory in Leningrad, Russia, as part of the US-USSR Cooperative Research Program. Standing (l to r): Professors Vera Gerasimova and Anatoly Kilmov, Fredrickson, Dr. Alexander Nichols, Levy, Drs. James Grizzle and Herman Tyroler.

“NIH must always remain primarily a scientific agency,” he states. “but it will have to learn better how to participate in evaluation of the technical side of health care. The technical choice is becoming indispensable to coping with costs of health in America. NIH’s role is to make sure scientific facts are laid out for others to lay on their value judgements.

“NIH is crucial to the stability of academic research in this country. I am not sure every administration realizes it though. To leave NIH so long without a leader is a careless thing. The nation could never replace it (NIH) if it were to fade and disappear through neglect.

“I came here 37 years ago,” he said. “I was chosen by Dr. James A. Shannon (NIH director at the time) to be one of the eight heart institute associates to work in the Clinical Center. In fact, I walked behind Shannon in two of his jobs — head of intramural research for the heart institute and then later as director of NIH.

“It was because of Shannon that I became director of the heart institute. When he asked if I would be the director, my lab was very productive and I didn’t really want to leave. But I said ‘Yes’ for a year. At the year’s end, I wanted to go back completely to the lab so I

(Continued from Page 7)

the Division of Intramural Research (1968-1974).

In 1974, he left NIH to become the second president of the Institute of Medicine at the National Academy of Sciences. However, in 1975 he accepted the invitation of President Ford to fill the vacant chair of the director of NIH. He stayed throughout the Ford administration and into 1 year of the Reagan administration.

After resigning from NIH for the second time in 1981, Fredrickson spent 18 months as scholar-in-residence at the National Academy of Sciences. He left the academy in 1983 to serve as consultant, then vice president of the Howard Hughes Medical Institute. In 1984, he was appointed to the board of trustees of the institute and elected president and chief executive officer.

During his tenure at HHMI, Fredrickson conceived and developed the Hughes Cloister program, which brings medical students from all over the country to NIH for a year of training in NIH laboratories. HHMI is a non-profit medical research organization that was funded by the aviator-industrialist Howard R.

"I allowed myself to be distracted from it over the years, but nothing can replace or quite match the game of science itself."

— Dr. Donald Fredrickson

Hughes and is the sole owner of the stock of Hughes Aircraft Co. At the time of Fredrickson's resignation in June 1987, the HHMI was the world's largest philanthropy with an endowment of more than \$5 billion and an annual budget of about \$250 million for medical research and related activities.

Fredrickson serves as a member of the advisory committee on the NIH; chairman, scientific advisory committee, Research! America; advisory board for Issues in Science and Technology and served on the White House Science Council from 1981 to 1989. He is a member of numerous organizations including the National Academy of Sciences, the American Academy of Arts and Sciences and the American Philosophical Society.

An author of more than 250 scientific articles, numerous other papers and editor for five editions of *The Metabolic Basis of Inherited Diseases*, Fredrickson is still busy writing and keeping his hand in the field that he loves—science. □



Gathering recently for NIAID's 6th annual Wallace P. Rowe Symposium on Animal Virology were (from l) Dr. Robert M. Chanock, chief of the Laboratory of Infectious Diseases; Dr. Malcolm A. Martin, chief of the Laboratory of Molecular Microbiology; Dr. Robert Lamb of Northwestern University, who received the Wallace P. Rowe Award for Excellence in Virologic Research; and Dr. Janet Hartley, head of the viral oncology section, Laboratory of Immunopathology. Lamb was cited for his original and seminal investigations of the synthesis of influenza and parainfluenza virus structural elements, particularly the mechanisms of processing and modification of viral RNA during transcription of SV5. Chanock, Martin and Hartley were symposium co-chairs.

NIH Library Looking for Discards

Do you subscribe to one or more scientific journals? The NIH Library is turning to its users for help in replacing missing copies of certain journals. If you subscribe to any of the journals listed alphabetically below, please remember the library when you are about to discard older copies.

Some of the volumes listed are still in the library, but the bindery cut them too closely and they are hard to photocopy.

The U.S. Book Exchange, which was the most reliable source of replacement journal issues and volumes, closed last year. Very few sources remain. Please help if you can.

Acta Paediatrica Scandinavica v. 75, 1986
American Journal of Public Health v. 79 no. 1, 1989
Anticancer Research v. 9 no. 1, 1989
Applied Physics Letters v. 54 no. 18, 1989
Archives of Physical Medicine and Rehabilitation v. 70 no. 6, 1989
British Journal of Clinical Pharmacology v. 25 no. 5, 1988
British Journal of Clinical Pharmacology v. 26 nos. 4-6, 1988
British Journal of Haematology v. 71 no. 2, 1989 2 copies
British Journal of Psychiatry v. 153, 1988 and suppl.
Chemical Society Reviews v. 17 no. 2, 1988
Clinical and Experimental Immunology v. 72 nos. 2-3, 1988
Clinical Rheumatology v. 6 nos. 1-3, 1987
Diabetes Educator v. 15 no. 2, 1989
European Journal of Pharmacology v. 160 no. 3, 1989
Evaluation Review v. 12 nos. 1-2, 4-6, 1988
Fortschritte Der Medizin v. 106 nos. 25-30, 1988 and suppl.
Functional Neurology v. 2 nos. 1-2, 1987
Immunology v. 63 no. 4, 1988
International Journal of Cancer v. 44 no. 1, 1989
International Journal of Pharmaceutics v. 52 no. 2, 1989
Journal American Medical Record Association v. 59 nos. 8, 9, 12, 1988

Journal of Applied Bacteriology v. 64 nos. 3-5, 1988
Journal of Applied Probability v. 25 nos. 1-3, 1988
Journal of Cardiovascular Pharmacology v. 11 suppl. nos. 3-4, 1988
Journal of Comparative Neurology v. 279 no. 3, 1989
Journal of Comparative Physiology A v. 164 no. 1, 1989
Journal of General Virology v. 70 nos. 5-6, 1989
Journal of Hypertension Suppl. 1-3, 1986
Journal of Immunological Methods v. 116 no. 2, 1989
Journal of Neurophysiology v. 60 no. 6, 1988
Journal of Photochemistry and Photobiology Sec. B v. 1 no. 3, 1987
Journal of the Canadian Association of Radiologists v. 39 no. 4, 1988
Journal of the Science of Food and Agriculture v. 47 no. 1, 1989
Kidney v. 35 no. 6, 1989
Laboratory Practice v. 37 no. 11, 1988
Medizinische Welt v. 40 no. 22, 1988
Molecular and Cellular Probes v. 1, 1987
Molecular Microbiology v. 2 no. 5, 1988
Morbidity and Mortality Weekly Report v. 37 no. 14, 1988 and suppl. s-1, s-2, s-6
Neural Networks v. 1 no. 1, 1989
No To Shinkei (Brain and Nerve) v. 41 no. 4, 1989
Nursing Management v. 20 no. 1, 1989
Nursing Times v. 85 no. 28, 1989
Peptides v. 6 nos. 1-3, 1985 and suppl. nos. 2-3, 1985
Perceptual and Motor Skills v. 68 no. 3 pt. 1, 1989
Perspectives in Psychiatric Care v. 24, 1985-88
Physics Letters B v. 223 nos. 3-4, 1989
Polyhedron v. 7 nos. 13-18, 1988
Progress in Neurobiology v. 32 no. 4, 1989
Prostaglandins, Leukotrienes and Essential Fatty Acids v. 35 no. 3, 1989
Psychological Abstracts v. 75 no. 2, 1988
Rhinology Supplement 3, 1988
Scandinavian Journal of Urology and Nephrology Supplement 16, 1989
Sovetskaja Meditsina no. 1, 1989
Toxicol v. 27 no. 2, 1989
Ultrasonnd in Medicine and Biology v. 15 no. 6, 1989
Veterinary Record v. 124 no. 26, 1989
Veterinary Record v. 125 nos. 2, 10, 1989 □

Image Processing Examined**DCRT Seminar Series Continues With Expert Panel**

The Division of Computer Research and Technology Training Unit continues its series of nine seminars with the next three topics: "MLAB on the PC," on Apr. 4; "Intro to Image Processing," on Mar. 27, 29, and Apr. 3, 5; and "Image Processing on the PC," Apr. 6.

"MLAB on the PC," describes an interactive computer program that allows the user to define models and specify data to be fit to a curve, to solve differential equations, and to produce high quality graphic plots. Expressions in MLAB are similar to those found in algebra, calculus and matrix analysis. Similar to the original DECsystem-10 program developed more than 20 years ago at NIH, MLAB for the PC is even more precise, using double-precision numbers rather than single in all calculations.

"MLAB automatically adjusts unknown numbers called parameters in order to minimize the difference, or improve the fit, between some theoretical curve and the observed values," said Richard I. Shrager of DCRT's Laboratory of Applied Studies (LAS), who is leading the seminar. "The parameters are meaningful if the researcher's theory is realistic. If the fit is good, this may indicate that the theory is good," said Shrager. This seminar will be given from 9 to 11 a.m., Bldg. 12A, Rm. B51.

"Introduction to Image Processing," taught by Dr. Benes Trus of the Computer Systems Laboratory, will introduce scientists and researchers to image processing techniques currently available and in use at NIH and DCRT. Image processing uses the computer to enhance a biological image by entering the images in digitized form, manipulating the resulting matrix of numbers mathematically, and then reconvertting to pictures to be displayed on a television monitor.

Students will learn basic image processing algorithms, basic image sampling, image enhancement, hardware considerations, background corrections, segmentation, texture, data compression, and alignment and averaging. Examples of image processing in the fields of electron and light microscopy, gel electrophoresis, and radiology will be given. This 6-hour course will be held Mar. 27, 29, Apr. 3, 5, from 9 to 10:30 a.m. in Bldg. 12A, Rm. B51.

"I would encourage those researchers who have some programming experience and work with images to see how the computer can help these images," said Trus. In addition to the 6-hour course, there will be a hands-on session

to which course participants are encouraged to bring an image they are working on within their individual labs.

This month's seminars will conclude Apr. 6 with Margaret Douglas of LAS teaching "Image Processing on the PC." This course will introduce students to PC image processing packages and instruct students on commonly used image processing techniques and how to apply them. Image Pro, an easy-to-use, menu-driven package will be demonstrated. This package has many popular options such as transformations and filters, measurement operations, and gray scale and color mapping.

"Image processing on the PC is similar to image processing on the mainframe although it is limited in speed, power and memory capacity," said Douglas. "But image processing on the PC is great for people from labs with applications such as cell counting too small to warrant the purchase of major processing systems." This seminar will be from 10 a.m. to 12 p.m., Bldg. 12A, Rm. B51.

Future topics in this series include: "Signal Processing on the Macintosh," by Dr. Eric Pottala; "Recurrent Problems in Data Analysis," by Dr. James D. Malley; "Remote Optical Sensing in Biological Tissues," by Dr. Ralph Nossal; and "Software for Solving Transportation, Diffusion, and Reaction Problems," by Dr. John E. Fletcher. To reserve a space for any of these seminars contact the Training Unit, 496-2339. □

String Quartet Concerts Planned

The Merck Co. Foundation is sponsoring a concert series tracing the history of the String Quartet, Apr. 2, at 12:30 p.m. in Masur Auditorium, Bldg. 10.

The musical selections will be from the national period and will be performed by the Manchester String Quartet: Hyun-Woo Kim, violin; Jane Bowyer Stewart, violin; Lynne Edelson Levine, viola; and Glenn Garlick, cello.

There will be additional performances Apr. 30, on selections from the impressionist era, May 14, on early 20th century musical selections, and June 1, on the modern and contemporary period.

Limited quantities of the colorful posters advertising the concerts are available in the NIH Visitor Information Center, Bldg. 10, Rm. B1C218, or call for further information, 496-4713. □

Computer Security Awareness Day

The Division of Computer Research and Technology is sponsoring Computer Security Awareness Day, Wednesday, Mar. 28, from 9 a.m. to 4:30 p.m., in Conf. Rms. 6, 7, and 8, Bldg. 31C, 6th floor.

A list of the scheduled activities is as follows:

- Schedule of Events (Conf. Rm. 6)
- 9 a.m.
NIH Video, "Computer Security Awareness at NIH, It's Everyone's Responsibility"
- 9:30 a.m.
Presentation by Micronyx
- 10 a.m.
Speaker: Angel Rivera, "Computer Viruses—Real Solutions to a Real Problem"
- 11:30 a.m.
Presentation by Centel
- 12 noon
Presentation by Anchor Pad
- 12:30 p.m.
NIH Video
- 1 p.m.
Presentation by Symantec
- 1:30 p.m.
Presentation by Sector Technology
- 2 p.m.
Speaker: Dr. Eugene Spafford, "Programmed Threats and a Practical View of Computer Security"
- 3:30 p.m.
Presentation by Software Directions
- 4 p.m.
Video — "Invasion of the Data Snatchers"

For more information contact DCRT's policy coordination office, 496-4885. □

Springtime Is Frisbee Time

Springtime is almost here, which means all you *Ultimate Frisbee* players out there are just aching to run, catch, dive and have fun playing this great game. Otherwise known as frisbee football, *Ultimate Frisbee* is a great way to get in shape, make new friends, and have a fun time. Games will be held on the field by Lot 41B from 5 to 7 p.m. weeknights starting in early April. Please call the R&W Activities Desk, 496-4600, to express interest. All newcomers who would like a description of this up-and-coming sport can call Lisa, 496-6061, Mon.-Wed. after 2:30 p.m. □

DIRECTOR

(Continued from Page 1)

tiatives and a cross-institute authority to transfer up to 1 percent of an institute's budget for biomedical research emergencies.

Mason reported that the search advisory consultants, who compile lists of and conduct preliminary research on possible candidates for NIH director, reconvened in January and will meet again this month.

The committee also agreed to suggest making the presidential appointment of the NIH director a 6-year renewable term in an effort to depoliticize the office.

The agenda for this meeting, the third, began with a comparison of the personnel compensation and hiring systems of NIH and other government agencies. The committee had requested information about the hiring practices of other agencies in order to understand NIH's high turnover rate for senior scientists and to determine what could be done to hire and retain top level researchers. Lack of flexibility in NIH's hiring system is considered by the committee a major disincentive to potential NIH directors.

NIST, which employs more than 3,000 scientists, has several hiring mechanisms available to it that NIH does not, including direct hire for all new employees (except SES'ers and noncitizens) and recruitment and retention bonuses of up to \$10,000 each. However, a key difference between NIH and NIST was acknowledged: NIST does not include medical doctors in its personnel system.

"One of the most important things they have is the direct hire authority," reported PHS personnel specialist James Eagen, who was asked by the committee to research hiring practices. "They are very happy with that."

"From what does the direct hire actually free them?" asked Raub.

"The 3 to 6 week application to OPM (Office of Personnel Management) for certification," Eagen answered. "They can take someone right off the street, interview and hire them. They can turn around very, very quickly."

"If we had this kind of flexibility," noted Fauci, "it would be a great help to us. Not infrequently we would lose a candidate by the time we (are authorized by OPM to) tell them, 'We've got you an SES.' It could take months and months."

The effect of the more flexible hiring mechanisms, which were instituted by OPM at NIST as part of a demonstration model 2½ years ago, has been twofold: There has been an ease in hiring and classifying new

high-level employees and there has been some pay relief for undercompensated scientists.

Turnover rate, however, has remained the same, which may be due, in part, to the fact that NIST has not made use of its retention bonuses.

The NIST demonstration model also allows hiring officials to augment the benefits package they offer prospective employees; NIST has not opted to use this mechanism in the past 2½ years either.

Dr. Paul Rogers, former congressman and senior partner for Hogan and Hartson, a Washington, D.C., law firm, offered candid appraisal of the NIST system: "They haven't used the authority they've got, so in effect

"If we're looking to the future, to compete with other nations, then it's time to pay some of the best and brightest minds in science properly."

—Dr. Linda Wilson
Radcliffe College

they haven't changed anything."

Former NIH scientist Singer, now president of the Carnegie Institution of Washington, defended the conservatism of NIST hiring officials.

"If you've got a budget and you've got to allow for science as well as salaries to come out of it, you're going to be careful about raising salaries."

Rogers summarized: "So, the flexibility of the (NIST) demo could be helpful, but we need to do something about the salaries and budget."

The hiring system of USUHS, which, for its faculty, is modeled after a university, also came up for examination by the panel.

A major difference between USUHS's system and NIH's is that USUHS salaries are not constrained by the federal pay cap. USUHS, which is in direct competition with NIH for top-notch scientists, is able, in effect, to pay its faculty on par with private universities and institutions; its faculty salaries are determined by the Secretary of Defense and are comparable to local medical schools.

"Their system is very effective for faculty," said Eagen. "It doesn't make a whole lot of difference to the rest of the staff."

Singer voiced sentiment that other panelists seemed to share: "It is astonishing to me that USUHS has this kind of pay scale when NIH, which has been the preeminent research institution in the world, (does not)."

Concluding the comparison of pay scales, Eagen noted that neither the NIST demonstration model nor USUHS' university-like

system meets NIH's personnel needs exactly.

Dr. Samuel Thier, president of the Institute of Medicine, agreed, "What we hoped was that NIH could develop its own demonstration model."

"I think a demonstration model is not the right approach," commented Radcliffe College president Dr. Linda Wilson. "If we're looking to the future, to compete with other nations, then it's time to pay some of the best and brightest minds in science properly. A demonstration model sends with it the message that we're not sure."

The topic of outside income for senior level NIH scientists also provoked animated comment and resulted in additional debate about proper compensation for the people who conduct biomedical research at NIH.

Raub briefly outlined NIH policy on intramural scientists receiving honoraria and other outside remuneration: "If someone is responsible for funding decisions then it is almost never the case that he or she could be approved for outside compensation."

Fauci put the policy in perspective: "(As NIAID director), I cannot lecture for a fee at say, Harvard or Cornell, on the science I've been doing for the past 20 years. You can effectively take a pay cut by going from lab chief to institute director."

Dr. Benno Schmidt, managing partner of New York City's J.H. Whitney & Company, responded: "No one in the world except the U.S. government would set up a \$7 billion budget and pay the man hired to administer it less than is competitive among others at his level."

Other panelists agreed but some reminded that recent concentration in Congress, and among other science and health advocates, has been on increasing the NIH budget to meet the rising costs of conducting biomedical research in lieu of compensating the researchers.

"Considering the present climate (in Congress)," Thier cautioned, "a \$5,000 pay raise for 300 or 500 (people) may not be met with approval."

According to Schmidt, who spoke out amidst the panelists' low murmurs of agreement, the time has come to shift the focus of efforts.

"It's high time now that we look at the other side of the equation," asserted Schmidt. "It's high time that we look at compensating the people who are charged with disbursing this \$7 billion budget."

The next meeting of the advisory committee on the NIH is scheduled for the end of this month. □

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	
Interacting with Difficult Employees	4/17
Time Management	4/17
Presidential Operations Workshop	5/7
<i>Office Operations Training</i> 496-6211	
Delegated Acquisition	4/9
Basic Time and Attendance	4/5
Domestic Travel	4/23
Foreign Travel	4/10

Training and Development Services 496-6211

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:

Monday	8:30 a.m. — 7 p.m.
Tues. Wed. 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 Note: The NIH Training Center is moving from Bldg. 31 to Executive Plaza South at the end of April. TDSP will remain until the end of the semester.

DONOR

(Continued from Page 1)

Typing, although not terribly expensive, is not free. It costs \$65 to do a single HLA typing. Multiply that by a thousand donors and the bill gets big fast. The NIH donor center exhausted its FY 1990 funds for HLA typing at the "Save Brian" drive.

"Additional funds were made available to us by the sponsors of the Fairlakes 10K, an annual event organized by a group of local businessmen and women specifically to raise funds for typing new NMDP donors in this area," said Loiacono. "Those funds, combined with funds from our operating budget, allowed us to type rather than turn donors away. However, it was clear that we had over-extended our program's funding capabilities and that alternative funds would have to be identified."

The situation of JoAnne Johnson, a young black college student from Silver Spring, brought to light another significant problem. Because HLA types are based on heredity, any individual's chances of finding a suitably matched donor are increased among one's own ethnic group. Since less than 5 percent of the NMDP donor base was black, the chances of finding a donor for Johnson were dismal.

Recognizing the NMDP's obvious need to increase minority representation in its donor base, NHLBI director Dr. Claude Lenfant

dedicated \$50,000 of his institute's funds for the drives to recruit African-American donors in the D.C. area.

"I don't know how he could come up with the money so quickly," said DTM's Klein, "but without it we would not have been able to help very much."

As a result, the number of black donors registered through the NIH center has risen from 26 to more than 1,000. Unfortunately, this action was not able to benefit Johnson, who died before having the opportunity to

"We'll have 10,000 (bone marrow) donors enrolled by spring. The calls come in every day."

—Bernice Loiacono
Director
NIH Marrow Donor Center

undergo a potentially lifesaving transplant.

Minority donors form an important part of the national registry. When it was organized 4 years ago, the NMDP estimated that a pool of 100,000 potential donors would be sufficient to meet the needs of 80 percent of the patients searching for donors.

"We found that only 25 percent of the patients could be matched with a donor base of 70,000," said Loiacono, noting that NMDP now has 90,000 donors on its registry. "The goal now is to register 250,000 donors. A special emphasis has been placed on ensuring that the NMDP donor base reflects the ethnic diversity of the nation's population since the diseases treatable through marrow transplantation (leukemia, aplastic anemia, and some immune disorders) affect all members of the human race."

In order to continue their recruitment drives, the Atlas and Johnson families affiliated with the Lifesavers Foundation of America, which is headed by a physician who began recruiting marrow donors for the NMDP when his wife became ill and needed a transplant. Not a registry itself, the foundation instead helps families to organize drives and raise money to cover the cost of typing new donors.

Donor recruitment drives, usually orchestrated by the media at the behest of family members, introduce potential donors to the first of three testing phases for tissue compatibility. So stringent are the criteria for compatibility that only 1 match may be found out of 20,000 donors.

The first stage of typing compares four markers on white cells of the blood—the so-called human leukocyte antigens, or HLAs. Any two unrelated people reading this article have about 1 chance in 10,000 of matching

each other in these four chromosomal locations. The second stage of typing involves 2 more markers, the "DR" antigens, and costs about \$100. There is 1 chance in 5 that any two people who mirror each other in the first four antigens will match on the two DR markers. The last stage in evaluating compatibility is a mixed leukocyte culture, in which cells from the donor and potential recipient are mixed together and tested; this adds another \$300 to the bill.

While all donor centers around the United States report expanding donor rolls, NIH has become the fourth largest program. The recent drives pushed its roster from 2,500 people to almost 9,000. "We'll have 10,000 donors enrolled by spring," forecasted Loiacono. "The calls come in every day."

These new donors are benefiting more than just the marrow registry; many are becoming blood and platelet donors at NIH as well, which pleases DTM's Klein.

"Marrow donation has most of the media attention now and is potentially lifesaving," he said. "However, most donors will not be called. Blood and platelet donors also save lives and we are glad to have these new donors."

Thus far, eight bone marrow transplants have taken place—the first was in January 1988—with members of the NIH center as donors; two more are scheduled for this month. Loiacono admits that the survival rates "are not real good—about 30-70 percent. But, as one recipient wrote to a donor: 'It isn't a life insurance policy, but it is a last chance.'"

The youngest recipient was under age 1 while the oldest was 46; after about age 55, bone marrow transplantation is not usually medically advised.

One hundred-twenty-three members of the NIH registry are currently being evaluated as possible marrow donors. Loiacono says she needs more help to cope with her program's success. "In addition to upgrading our computer capabilities, we're going to have to add staff," she said.

"We used to get five requests a week for second stage typing. Today I got 48. This is a result of all the new donors drawn by the Atlas and Johnson drives. We now get, in 1 day, twice the number of requests we used to get in a month."

NHLBI's Lenfant is reportedly also seeking more funds from Congress so that the NMDP, which is operated on contract from his institute, can meet its lifesaving responsibilities.

Eventually, NMDP hopes to have 250,000 names in its registry, which will add to a planned base of 1 million HLA-typed donors in the International Cooperative Registry, whose members include England, Belgium, France, The Netherlands and Israel. □

Plan Will Help Navy

Washington Gas To Install Pipeline Across Campus

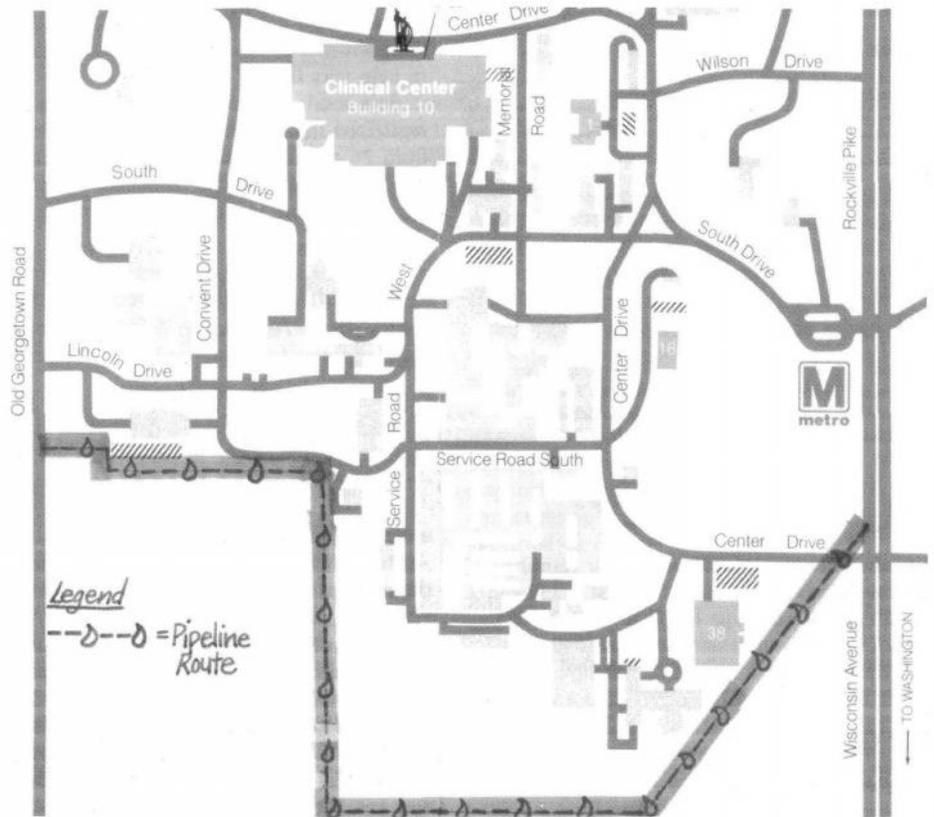
A natural gas pipeline will be installed across the NIH campus, extending from an existing line located along Old Georgetown Rd. to the Naval Medical Center. This pipeline will serve the immediate needs of Navy and at a later date NIH's needs, should the boiler plant here convert to burning natural gas.

The work is being done by the Washington Gas Light Company (WGL) via an easement agreement signed by PHS. Norm Mansfield, NIH associate director for research services, says, "The use of natural gas will allow NIH to achieve significant cost savings in its overall fuel expenditures as well as improvements in air quality from the use of a cleaner burning fuel. At the present time, a connection will not be made from the pipeline to the NIH boilers but the agreement contains provisions for a connection to be made in the future at no charge to the NIH."

The agreement provides for a boundary of 10 feet on either side of the path of the pipeline (see map for the proposed path). "While the easement area will nominally be under the control of WGL," Mansfield says, "NIH's approval will be needed for them to make any changes or improvements to the area after the initial construction."

"This easement will not affect any potential building sites on the NIH campus, including the Consolidated Office Building site," states environmental biologist Roman Pendzich of the Environmental Protection Branch.

"No trees will be destroyed as a result of this project and the construction should not take longer than a month. The trench necessary to lay the plastic pipe will be 3 feet deep and approximately 18 inches wide, and no



other disruptions are expected to occur as a result of this project," he states.

Carol Mitchell in the Division of Space Management has been working on the agreement since WGL made the request. Asked when the project will actually begin, Mitchell

says, "All the paperwork has been signed by the federal government and the official easement papers are at WGL awaiting final signature. We expect the work to start in early April." □

Prevent Sun-Induced Skin Damage

Before you begin working on that summer tan, you should consider the long-term effects of exposure to the sun's rays. Sunlight is the greatest source of human ultraviolet ray (UVR) exposure, affecting virtually everyone.

On Thursday, Apr. 5 at 11:30 a.m. in Wilson Hall, Bldg. 1, the NIH Disease Prevention Seminar Series will sponsor a presentation entitled "Prevention of Ultraviolet Induced Skin Damage." Dr. David Bickers, director of the skin diseases research center at Case Western Reserve University and University Hospitals will address the NIH community on this seasonal hazard. Bickers also chaired the NIH Consensus Development Conference on "Sunlight, Ultraviolet Radiation, and the Skin" held here last year. □



NCI's equal employment advisory group (EEOAG) promotes the development and implementation of EEO programs and helps identify and resolve problems of minorities, women and handicapped persons at NCI. The group meets periodically with the NCI director or his representative to transmit its advice and recommendations. The EEOAG meets the first Thursday of each month at 1 p.m. in Rm. 11A10, Bldg. 31. Meetings are open to the public. Members of the EEOAG for 1990 are (standing, l to r) Monica Farrar, former chairperson Ursula Flatow, Betty Ann Sullivan, Yvonne Jones, secretary Wayne Jackson, Doris Churney, Roger Aamodt, Carol Kelly, Donald Shopland, EEO officer Maxine Richardson, Elise Yan. Seated are (from l) Janet Maltbie, vice chairperson Susanna Barrett, chairperson Kenneth Chu, Linda Brown, Cheryl Stable. Not shown are Nialah Agyman, Rosemary Cuddy, Susan Garges, Vaurice Starks, Jim Stoneman, Janet Brow, Robert Coggin, Mary Ganges, Michael Weedon.