

"Still
The Second
Best Thing
About Payday"

The NIH Record

NIH Task Force Holds Public, Private Forums

By Carla Garnett

Raising questions about the effectiveness of the equal employment opportunity process and the fairness of some of NIH's employment practices, 28 speakers gave presentations during the first open forum sponsored by the NIH task force that was created 4 months ago to address such issues. Originally scheduled to last from 8 to 10:30 a.m., the Aug. 10 public session ran more than 4 1/2 hours—well into the noon hour—in Masur Auditorium. Another session was held for about 4 more hours that afternoon to hear presentations from 19 speakers who preferred a less public meeting with the task force.

Last May, former NIH director Dr. Bernadine Healy established the NIH task force on fairness in employment practices after meetings with the Montgomery County chapter of the NAACP and NIH's chapter of Blacks in Government; the meetings were held in response to widely publicized rallies on campus by some agency employees, the NAACP and BIG to protest alleged incidents of racism, sexism, nepotism and reprisal and retaliation among NIH's employment practices.

The multiracial task force—composed of NIH employees representing a wide range of occupations and pay grade levels—has a detailed mandate to evaluate, monitor and make recommendations regarding NIH's policies on all such employment taboos; the Aug. 10 forum, however, was designed to focus



NIH's task force on fairness in employment practices convened its first open meeting Aug. 10. More than two dozen speakers gave testimony.

mainly on general allegations involving reprisal and retaliation. Similar open meetings are planned to address the other issues.

Orchestrated much like a congressional hearing with the 17 members of the task force plus NIH acting director Dr. Ruth Kirschstein seated across centerstage, facing the designated speaker's chair, the session opened with

(See **TASK FORCE**, Page 4)

Genes May Tell Why Arthritis Improves During Pregnancy

By Elia T. Ben-Ari

Improvement of rheumatoid arthritis during pregnancy may be related to how much the mother and unborn child differ genetically, researchers say. According to study leader Dr. J. Lee Nelson of the Fred Hutchinson Cancer Research Center in Seattle, these genetic differences may set off maternal immune responses that modify the disease process. The results of this study, which appear in the Aug. 12 issue of the *New England Journal of Medicine*, provide an intriguing new focus for examining what causes remission of rheumatoid arthritis that may lead to new treatment strategies.

Rheumatoid arthritis is a chronic inflammatory disease of the joints that affects more than 2 million Americans, the majority of them women. The disease can flare up suddenly, and, for unknown reasons, just as suddenly go into remission. In autoimmune diseases such as rheumatoid arthritis, the immune system attacks and damages the body's own tissues. Just what causes the immune system to go awry in rheumatoid arthritis is still unclear, and is the subject of much research.

"The question of remission of rheumatoid arthritis during pregnancy goes back to the

(See **ARTHRITIS**, Page 8)

CC's McNamara Gives, Takes Lessons in African Nation

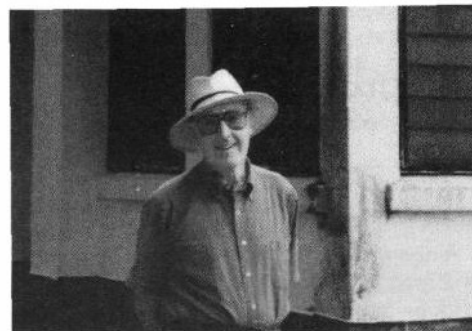
By Sara Byars

There's a collective commitment to life's possibilities in the south-central African country of Zambia.

Dr. Thomas Macnamara, chief of the Clinical Center's anesthesia section, came to appreciate that commitment while in the country recently for a 10-week teaching assignment sponsored by the American Society of Anesthesiologists (see sidebar).

"The first week was an eye-opener, as was every day afterwards," he says. "Medical care is a casualty of the numbing poverty. Health

(See **ZAMBIA**, Page 9)



Dr. Thomas Macnamara

September Is Month to Know Your Number

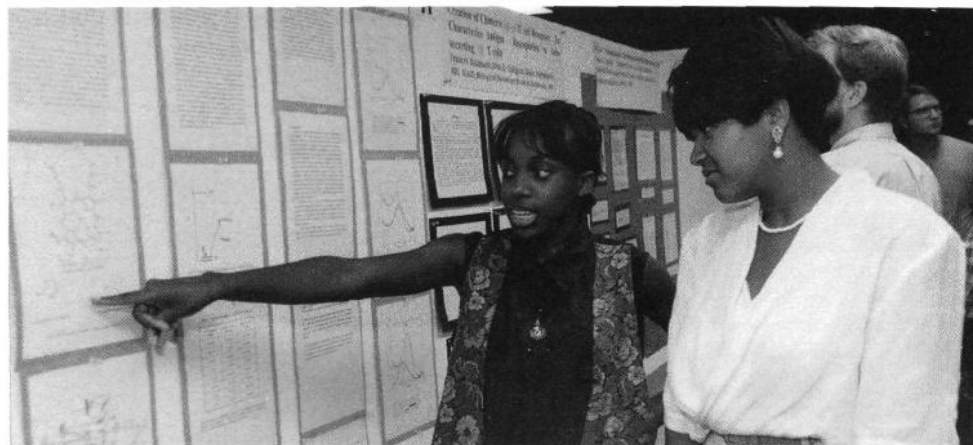
NHLBI Hosts Annual Cholesterol Month Observance

September is National Cholesterol Education Month and the National Cholesterol Education Program (NCEP) coordinated by NHLBI, has begun a new mass media campaign. The campaign's mission is to try to emphasize many good foods that can be prepared so that they're both delicious and lower in saturated fat and cholesterol. Eating foods lower in saturated fat and cholesterol can help lower your blood

cholesterol level—reducing your risk of coronary heart disease.

In a cooperative activity between NHLBI and Guest Services Inc., the NIH cafeterias will feature new posters and new heart-healthy recipes. NHLBI's "Stay Young At Heart" program, a nutrition education effort undertaken in the NIH cafeterias, will pilot-test some new heart-healthy dishes such as beef and bean

(See **CHOLESTEROL**, Page 2)



The NIH Office of Education recently held its 3rd annual student poster day. Above, Hadiya Watson (l) explains her research project to Cherilyn Taylor. See story and more photos, pages 6-7.



A Low Fat Diet. Good Food. Good For Your Heart.

Choose foods low in saturated fat and cholesterol to lower your blood cholesterol.

National Cholesterol Education Program
National Heart, Lung, and Blood Institute; National Institutes of Health; Public Health Service; U.S. Department of Health and Human Services
A cooperative activity between the National Heart, Lung, and Blood Institute and Guest Services, Inc.

New Multi-level Parking Garage Opening Soon

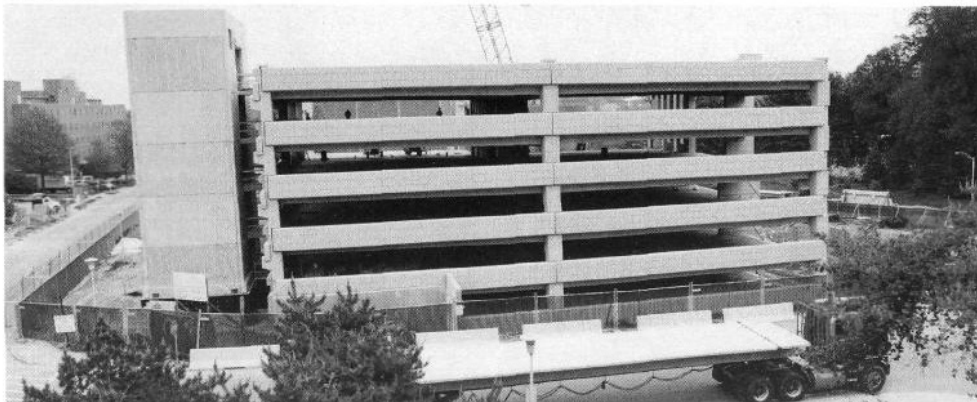
A new multi-level parking garage (MLP-8) will soon be providing NIH with 1,570 new parking spaces. The Division of Engineering Services, ORS, expects to open MLP-8, located at the intersection of Lincoln and Convent Drives, by early this fall.

According to Artemis Papademetriou, architect in charge of the project, building design considerations included the need for a "user friendly" building that would allow drivers to find vacant spaces quickly and give pedestrians easy, safe access to exit stairs and elevators.

Important to the design and construction team were concerns about the security of those who will park in MLP-8. A state-of-the-art security system including closed-circuit television (linked to monitors at the NIH Police communications center) and emergency phones have been incorporated into the structure.

Also of concern was the impact of MLP-8 on the campus environment and on NIH's neighbors. To address these issues, measures such as lighting designed to control glare and visual screening of the structure with tree plantings have been incorporated into the design.

Although the opening of MLP-8 will help alleviate the daily search for a parking space, parking on the NIH campus will continue to be held to a 0.5 employee-to-space ratio by agreements with the National Capital Planning Commission and other regulatory agencies. ORS encourages employees to consider alternative parking and commuting habits such as parking at one of various satellite parking lots, carpooling, or taking advantage of the Transhare program. For information on any of these programs, contact Gail Thorsen at the Employee Transportation Services Office, 27433.



View of the new parking facility, MPL-8, at the corner of Lincoln and Convent Drives. The garage is slated to open in early fall.

CHOLESTEROL

(Continued from Page 1)

chili, tailgate chicken salad, baked pork chops, Pacific Coast salmon salad, red hot fusilli, spaghetti with turkey meat sauce, Aztec chicken soup, and hot and sour soup—to name just a few.

And again this year, the R&W and the Occupational Medical Service will sponsor cholesterol screenings that incorporate recommendations from the new NCEP guidelines, the Second Report of the Expert Panel on Detection, Evaluation, and Treatment of High Blood Cholesterol Levels in Adults (adult treatment panel II, or ATP II), released in June 1993. The screenings will begin in mid-September. Check the next issue of the *NIH Record* for the schedule of screenings.

So stop by the NIH cafeterias during September and try some of the new heart-healthy food choices that are lower in saturated fat and cholesterol—and later in the month have your cholesterol checked if you don't already know your cholesterol number. □

Correction

A picture caption on page 1 of the last issue of the *NIH Record* misidentified the head of NHLBI's new bone marrow transplantation unit in the Clinical Center. He is Dr. John Barrett. □

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Follows in Footsteps of Famous Naturalist

Modern Day Charles Darwin Begins Journey

By Mary Daum

Leaving on American Airlines flight 834 isn't exactly like setting sail on the H.M.S. Beagle, but the destinations will be the same. On Sept. 1, Howie Green, 22, will embark on the journey Charles Darwin took 162 years ago that laid the groundwork for the book, *The Origin of Species by Means of Natural Selection*.

Green is a 1993 graduate of the University of Puget Sound in Tacoma, Wash., who aspires to a career in paleontology. For the past two summers, he has worked in the Bone Research Branch at the National Institute of Dental Research.

During his senior year, the Silver Spring, Md., native won a Cunningham fellowship from his college to retrace the steps of Charles Darwin.

"Few people will have this type of experience—of being so free, unattached, by yourself, with so much time to just explore," said Green. "I have several plans for the trip. My main objective is to do an environmental study examining the present natural state of the locations Darwin had visited and comparing them to what he observed over 160 years ago."

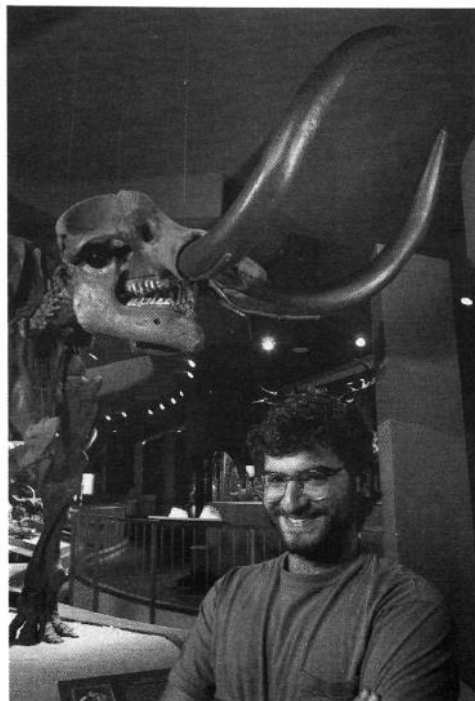
Darwin set sail in 1831 on the H.M.S. Beagle, whose crew was to survey South America and its island groups. On the 5-year journey, he collected evidence later used to support his theory of evolution by natural selection. This theory states that all living things, including humans, evolved through natural selection of hereditary traits that increased the ability to survive.

Green has read extensively about the famous 19th century naturalist and his voyage. "Darwin was a prolific writer and I have the good fortune of reading most of his primary source material in published texts," he said. "Reading correspondence he wrote to family, friends, and professors during the voyage, plus his personal journal and his autobiography, gives me a strong impression of Darwin's personality and his feelings while on the Beagle. I truly can relate to his experiences because I have a similar academic background and I'm the same age as he was when he started his voyage." Green's year-long adventure will include most of Darwin's stops.

Green came to NIH because he wanted to learn about the latest molecular biology techniques and how he could apply them to paleontology, the study of fossils. He has pursued this goal by working in the Bone Research Branch, and through that affiliation, with staff at the Smithsonian Institution's Museum Support Center.

This summer, Green extracted DNA from the bone of a mastodon, an elephant-like creature that became extinct 12,000 years ago. He will now try to sequence the genetic material.

His most pressing project, though, is his upcoming odyssey.



Howie Green visits the Smithsonian's National Museum of Natural History, posing in front of a mastodon skeleton that went on display in 1916.

Photo: Bill Branson

"I don't know exactly how I'll feel at my first stop, but anticipating my upcoming experiences is very exciting," he said. When he returns from his expedition, Green will pursue a master's degree in geology, his undergraduate major, then earn a doctorate in paleontology. □

Steve Allen, Jr. Speaks at NIH

Dr. Steve Allen, Jr., son of the famous comedian, will speak at NIH on Thursday, Sept. 9, from 1:30 to 3 p.m. in Masur Auditorium, Bldg. 10. A board certified physician, Allen has blended his medical expertise and his natural heritage of humor into an enlightening and entertaining presentation. The event is sponsored by the NIH public affairs forum committee.

The poster seen around campus, showing Allen juggling brightly colored scarves, was created by Joe Fitzgerald, NLM's graphics director. Through a special arrangement with the R&W, a limited number of these silk-screened prints will be sold to benefit Camp Fantastic. Following Allen's presentation, copies of the poster will be available for purchase and autographing.

Admission is free and the event is open to all. Sign language interpretation will be provided. For reasonable accommodations, contact Joan Brogan, 62906. For more information, call 66308.

Get Ready for Research Festival '93

Mark your calendars for the 1993 NIH Research Festival, scheduled for the week of Sept. 20-24. "Molecular Medicine" will serve as the general theme of this year's program.

The festival organizing committee is currently chaired by Dr. Irwin Kopin, NINDS scientific director. The annual festival includes symposia, workshops, and poster sessions. "The goal is to bring together researchers from NIH's diverse intramural programs and give them an opportunity to exchange ideas," said Tom Flavin, who is chairman of the committee that coordinates the festival each year. "We look forward to the same success that the Research Festival has always enjoyed in the past."

The festival opens on Monday, Sept. 20, with NIDDK's Alumni Symposium, "Contributions of Basic Science to Biomedical Research," followed by a plenary session on "Clinical Applications of Gene Therapy." Tuesday's program will feature "Transcriptional Control," and "Cellular and Functional Imaging," and Wednesday will include "Biobehavior and Health" and "Signal Transduction and Intracellular Trafficking."

In addition to the symposia, 45 workshops will be conducted on Tuesday and Wednesday. Also on Wednesday there will be a special computer workshop, "Computation and Theoretical Methods for Molecular Medicine," which will run all day.

Poster sessions will run all day on Monday and Tuesday. The sessions will display 500 posters that highlight some of the work being done in NIH intramural laboratories. (All exhibitors have already received acceptance letters notifying them of their poster numbers.)

Festival participants will once again be treated on Thursday and Friday to the Scientific Equipment Show, sponsored by the Technical Sales Association (TSA). The show will be held under the same large tents set up for the poster sessions, to be located in parking lot 10D, next to the Clinical Center. The TSA will provide refreshments during each poster session. There will not be a picnic this year.

A booklet detailing Research Festival events has been distributed desk-to-desk. For more information, call Gregory Roa, Visitor Information Center, 61776. □

Mentoring Orientation Held

The kickoff orientation for the NIH Mentoring Program was held recently in Lister Hill Auditorium. Key objectives of the program include providing employees with information on improving their career opportunities through one-on-one mentor/protege relationships. The NIH Office of Equal Opportunity is sponsoring the program to give NIH'ers who are not in formal programs an opportunity to have a mentor. Kickoff speaker Joharis Rashal of the Bureau of Land Management, Washington, D.C., explained the benefits of mentoring. Employees interested in being or having a mentor may call OEO, 66301. □

TASK FORCE

(Continued from Page 1)

Kirschstein delivering strong words of support for the open forum and commitment to ending campus disharmony.

"Nothing could be more important to me than seeing our campus become a more harmonious place in its diversity," she stressed. "NIH's mission—its whole reason for being—is to serve humanity and to improve the health and well-being of all people...If we are truly dedicated to humankind, if we are to fulfill our mission of helping to heal human suffering, we must begin healing the deep wounds that so many of us—including me—are feeling now."

Discrimination on any level will not be tolerated at NIH, said Kirschstein, who was a member of the task force before being named acting NIH director by HHS Secretary Donna Shalala.

Shalala, who has expressed extreme concern about the continued allegations against NIH, reemphasized the department's "zero tolerance" of sexual harassment and discrimination in recent public remarks. In an Aug. 4 memo to assistant secretary for health Dr. Philip Lee, she specifically targeted NIH, explicitly stating HHS's repudiation of discriminatory workplace practices.

"Our policy is to fully utilize the talents and capabilities of all employees and to create a work environment where no one is denied opportunity to contribute fully," Shalala wrote.

Said Kirschstein, "I would like to see an NIH where there is an absence of intolerance and prejudice, where discrimination is a despised thing of the past."

Dr. John Diggs, former NIH deputy director for extramural research and task force cochair, summed up the group's mandate and laid the forum's ground rules.

"I think each employee at NIH who has the mind, the willingness, the energy and the enthusiasm to contribute to the NIH mission, should not only be allowed to contribute, but also be encouraged to contribute," he said. "It should not matter whether that mind is wrapped in a black skin or a white skin or a red skin or a yellow skin or a brown skin, or whether that mind is contained in a male body or a female body."

Cautioning participants beforehand not to use names other than their own, if desired, in their presentations, Diggs explained the role of

Dr. Ruth Kirschstein (r), acting NIH director, sat in on the task force's first open meeting, which was designed to address complaints of reprisal and retaliation.



the task force is not to make decisions on individual cases but to look for inadequacies in general in NIH policy. The task force will review what it heard from speakers during both the open and closed sessions, and will then recommend policy changes or additions directly to the NIH director.

Presentations got under way with Dr. Suzanne Haynes, an NCI section chief, who said that since she filed an informal sexual discrimination complaint in 1989, she has been demoted from her branch chief position, forced to pay her own travel expenses to scientific meetings and blackballed from three branch chief positions in the last 2 years.

"No one at NIH is immune from retaliation," she said, "not even managers. Throughout the 4 years since I originally filed the complaint, the NIH EEO and personnel offices have been of little help in stopping the retaliation. In fact the huge delays in processing my complaint have led to more and more retaliation."

"I believe that NIH can become a better place...the commitment is here with this task force and is growing and spreading among the top management of this institution."—Dr. Ruth Kirschstein, acting NIH director

Haynes offered several solutions to the problems she cited; her suggestions were echoed often by other speakers during the forum.

One such suggestion was that a new agency— independent of NIH and staffed by persons unrelated to NIH—be created to handle EEO complaints. Currently NIH's Office of Equal Opportunity handles complaints, a situation some speakers said they find untenable since OEO is considered by many to be a tool of management that does not represent the interests of individual employees.

Haynes also said that during the EEO process,

either the accused or the complainant should be assigned to another office in order to eliminate what she termed "daily stalking" by the accused. Too often, she said, after an employee files a complaint, both parties continue to face each other in a negative environment for months during the complaint procedure.

Another speaker, former NIH employee Dr. Margaret Jensvold, concurred, and added that besides "revictimizing the victim," the current EEO process at NIH tends to protect those who do wrong.

"What these cases and others confirm," Jensvold asserted, "is that institutions are vehemently defending and protecting the wrongdoers, while trying to isolate and silence and blame and put down and shut out the victims and the persons who stand up against unethical behaviors."

A later speaker, Billie Mackey of NIDDK, said that, in her view, the personnel office is used to "aid and abet" the retaliation process against employees who file grievances. Her

presentation was interrupted often by spurts of applause from the audience. What had been sparse attendance at 8 a.m. had grown to nearly 200 by mid-meeting.

Mackey's suggestions included putting on hold promotions, raises and awards until suits against offending managers are settled. Again, some in the audience expressed loud support.

Another common complaint among speakers was the duration of the EEO process. Jensvold said her EEO complaint against NIH is in its seventh year. Mackey said she has a 9-year grievance. And yet another unidentified speaker said her complaint is the longest ever pending against NCI. Wesley White, an NIDDK biologist, said he organized a class action suit against NCI in 1977 and has yet to receive a ruling from the administrative hearings.

"The rallies, the press coverage, the congressional hearings are evidence that something is wrong at NIH," he said. "The fact that employees are going outside the system to voice their concerns is evidence of a problem of trust in the system. The problem is not in the EEO

In open and closed sessions that lasted from 8 a.m. to 5 p.m., the 17-member, multicultural task force heard 47 presentations by current and former employees.



process, but in the lack of support for the process by ICD directors and managers."

Explaining that he thinks employees who exercise their civil rights are subject to unfair treatment at NIH, White said, "Great efforts are made to discredit, to humiliate [and] to disqualify [those] employee[s] from promotions and training."

An earlier speaker, Mike Davis of NIH's shipping and receiving department, expressed similar feelings. "The victim becomes the villain," he said, recounting his experience with EEO following his election to head a wage-grade employee union in 1989. He said he experienced various efforts to retaliate against him, including attempts to discredit him personally.

Dr. Sharon Johnson, a former NIH employee who said she filed a complaint in 1979, noted, "The EEO process is an obstacle course that few people could successfully negotiate." In her experience, she said, "Reprisal was real and immediate and processing was prolonged and futile."

In the weeks preceding the forum, only about 12 persons signed up to speak publicly; during the actual session, more than a dozen others volunteered to give impromptu testimony.

Throughout the presentations, a few members of the task force questioned speakers for further clarification, but by far the bulk of the forum consisted of the 10- to 15-minute monologues by the speakers, some of whom became noticeably emotional when detailing their experiences. The "deep wounds" Kirschstein alluded to early in the meeting were sometimes clearly evident.

At various times during the session, some speakers thanked the task force for holding an open meeting; several speakers also encouraged the task force to carry out its mandate quickly while the issue is still fresh on the hearts and minds of those in the NIH community. More than 200 NIH employees or former employees participated in the sessions through direct testimony, audience attendance or via the NIH town meeting network.

"I believe that NIH can become a better place," Kirschstein said, concluding her remarks. "It will take a while and it won't be easy, but I think the commitment is here with this task force and is growing and spreading among the top management of this institution."

In an Aug. 19 interview, task force cochair Sandy Chamblee, senior policy advisor and counselor to the NIH director, summarized forum results. "The sessions on reprisal and retaliation were both productive and informative," she said. "While it is still too early to judge the employees' perceptions of the forum, initial reaction seems positive and hopeful. The task force should continue to conduct open meetings from time to time to demonstrate its continuing commitment to the resolution of EEO problems at NIH." □

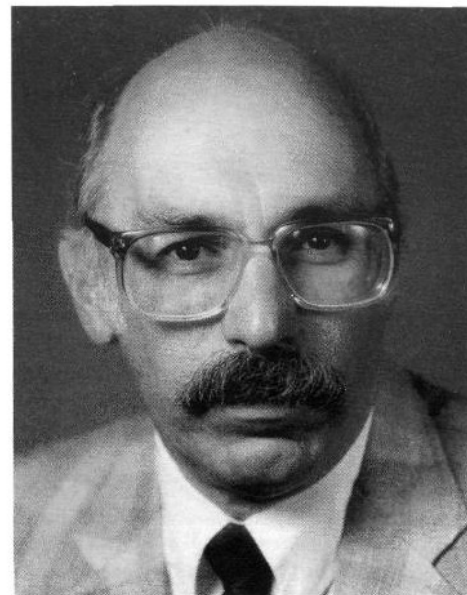
NIGMS Names Marvin Cassman Acting Director

Dr. Marvin Cassman recently was named acting director of NIGMS, replacing Dr. Ruth Kirschstein, who is now acting NIH director.

Cassman, who has served as deputy director of NIGMS for the last 4 years, has held other positions within the institute, including director, Biophysics and Physiological Sciences Program Branch and chief, molecular basis of disease section of the Cellular and Molecular Basis of Disease Program Branch. He has also worked in the Office of Science and Technology Policy, Executive Office of the President, as a senior policy analyst.

He earned a B.A. in liberal arts in 1954, a B.Sc. in anatomy in 1957, and an M.S. in biochemistry in 1959, all from the University of Chicago. He spent 2 years as a research fellow at Northwestern University Medical School before entering graduate school at the Albert Einstein College of Medicine, where he earned a Ph.D. in biochemistry in 1965. After a postdoctoral fellowship in the laboratory of Dr. Howard Schachman at the University of California, Berkeley, Cassman joined the faculty of the University of California, Santa Barbara, as an assistant professor of biochemistry and biophysics. He came to NIGMS in 1975.

Cassman has served on various committees within NIH, including the AIDS executive



Dr. Marvin Cassman

committee and the Shannon Awards committee.

For his work at NIGMS, he has received many honors and awards, including the 1991 Presidential Meritorious Executive Rank Award and the 1983 NIH Director's Award.

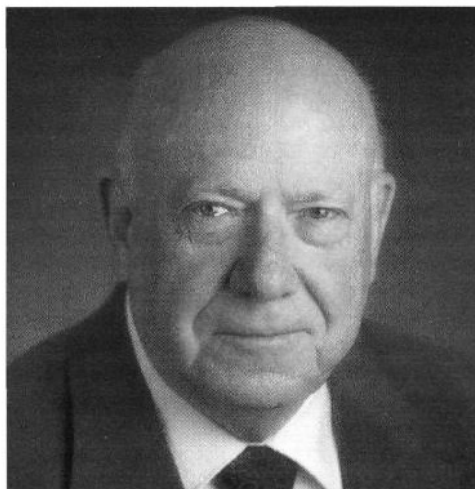
Training Video Wins Two Awards

The Radiation Safety Branch (RSB) has again been recognized for production of quality training videos. In its annual Gold Screen competition, the National Association of Government Communicators selected the video, "Radiation Safety Refresher Training - 1991" as a winner in the video/film programs category. The same video was also declared a finalist in judging for the 14th Annual Telly Awards competition (Telly Awards recognize outstanding nonnetwork programming). Working with the film's director, Joy Jackson of the Medical Arts and Photography Branch, NCRR, was William Holcomb, radiation safety training officer.

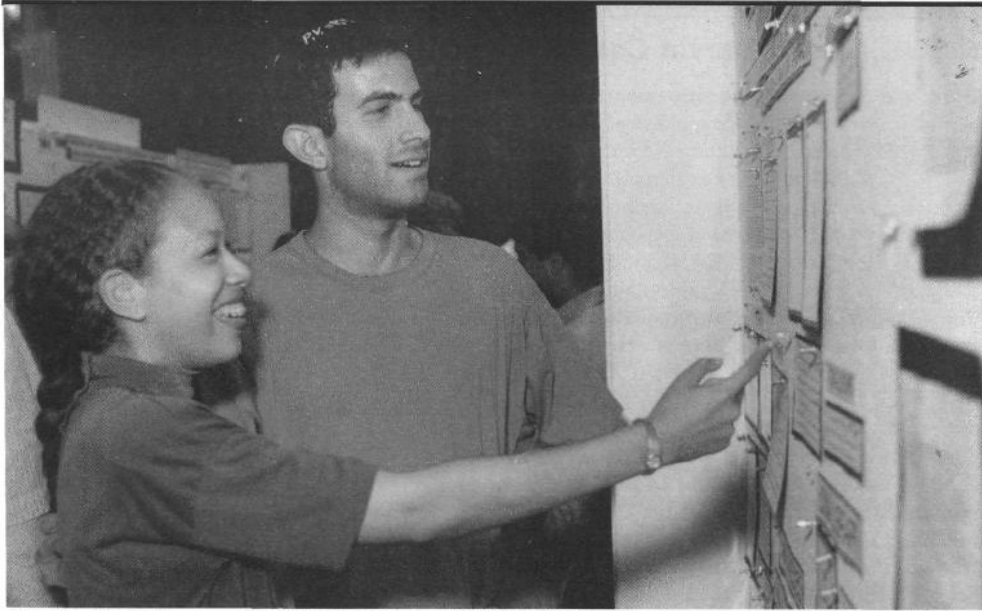
"Because education and training are important aspects of our programs for promoting safety on the NIH campus, it is rewarding to have the RSB training effort recognized. They are responsible for the initial and refresher training of over 4,000 NIH researchers working with radioactive material," commented Dr. Robert McKinney, director, Division of Safety.

For several years the Radiation Safety Branch has used a series of videos to facilitate the yearly refresher training. In 1991, the RSB 1990 refresher training video was also recognized with an honorable mention in the Gold Screen competition.

If you would like to see either of the award-winning videos, call the Radiation Safety Branch, 62255. □



Dr. Earl Stadtman, chief of NHLBI's Laboratory of Biochemistry, has been named winner of the \$20,000 Glenn Award by the Gerontological Society of America. He was cited for adding a significant body of knowledge in the biology of aging. Specifically, he was honored for his highly original studies that have provided the framework for identification and quantification of cellular damage that can lead to premature aging. The award will be presented Nov. 21 in New Orleans at the society's 46th annual scientific meeting. Stadtman has worked at NIH since 1950 and has been in the lab he now heads since 1962.



Candice Myers (l), a senior at Walter Johnson High School, describes her research projects to Josh Milner of Massachusetts Institute of Technology.



Ruth Sanchez (r) of Burke, Va., stands in front of her poster with her preceptor Dr. Susan Gottesman, chief of the biochemical genetics section in NCI's Laboratory of Molecular Biology. Sanchez attends Georgetown Day School and "enjoyed my first project at NIH."



Dr. Richard Asofsky, experimental pathology section chief in NIAID's Laboratory of Immunology, visited many exhibits and listened as each student explained his or her project.



More than 300 students presented the results of their summer research projects at the NIH Summer Research Program Poster Day sponsored by the NIH Office of Education.

A Day When Scientists Learn from Students

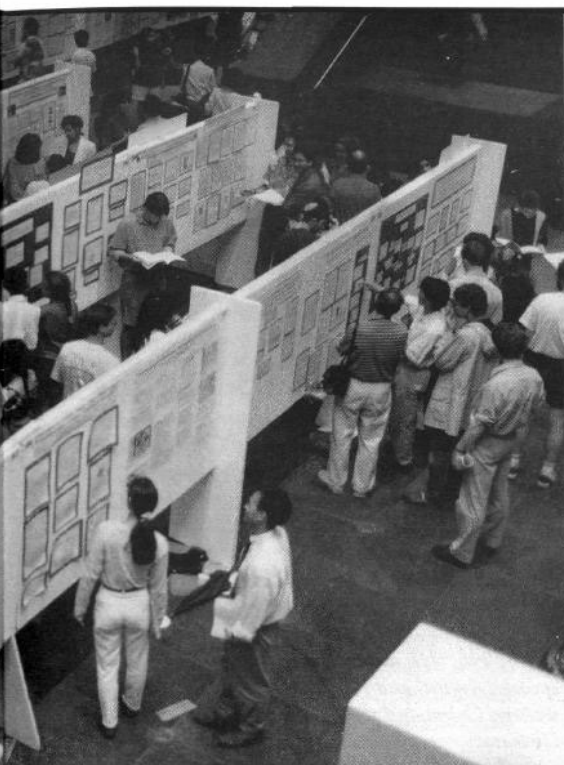
NIH's Summer Research Program Holds Poster Day

NIH's Office of Education sponsored the third annual Summer Research Program Poster Day, Aug. 6, for participants in NIH summer internship programs. Scientific presentations were made by 313 students and teachers in a poster format where they had the opportunity to share the results from their summer research projects with their colleagues—just as professional scientists do at scientific meetings.

Participating students came from high schools, colleges, medical schools, dental schools, and graduate schools. They represented 27 states, the District of Columbia, Puerto Rico, and France.

Because of an overwhelming response, Poster Day 1993 was presented in two sessions at the Clinical Center's Visitor Information Center: there were more than 800 student and teacher summer interns who had been involved in a hands-on research experience. For 8 to 10 weeks, they have worked side-by-side with NIH scientists in some of the most sophisticated biomedical research laboratories in the world.

The experience provided by the summer internship program is designed to provide the best possible exposure to the life of biomedical research in an effort to encourage students to explore the possibility of continuing in a scientific career. The experience for teachers is meant to heighten their appreciation of the research process so that they may better communicate



research at the third annual NIH Summer Research

Poster Day, Aug. 6

research career opportunities to their students.

The NIH Summer Research Program has developed into a comprehensive program for students and teachers, with each program element striving to support the development of our nation's future biomedical scientists. For more information about the program, contact Dr. Michael Fordis, director of NIH's Office of Education, 62427.—Debra Cohen



These four students worked in NICHD's Laboratory of Comparative Ethology for the summer: (from l) Abby Liebel, Naomi Sunshine, Rona Livnat, and Tyrone Walker. Liebel and Livnat, who will be entering Washington University in St. Louis in the fall, are recent graduates of Montgomery Blair High School in Silver Spring. Sunshine is in her second year at Yale and Walker is a third-year medical student at Howard University.

Seminar Addresses TQM and the Scientist, Sept. 8

The NIH Executive Speakers Series Seminar will present "Total Quality Management and the Scientist: Its Application for Laboratory Management" for scientists, researchers and ICD executive staff on Sept. 8, from 1 to 3 p.m. in Masur Auditorium, Bldg. 10.

Roger Tunks, senior consultant and president of the management consulting firm Richard Rogers Group, Inc., will be the speaker and address the following issues: The application of TQM in the laboratory—activating administrative support to achieve its goals; how to develop a master plan, establish TQM leadership and change employee attitudes from "I have to" to "I want to"; effective ways to use all the

important tools of TQM; valuable lessons from the mistakes and successes of others in similar professions—lessons to help you make sure you do it right the first time, and how to define quality.

Tunks was former director of organizational development for the Kaiser-Permanente Medical Care Program, Oregon Region. During his 10 years there, he designed and conducted extensive management training for all managers, including physicians.

The Executive Speakers Series Seminar is sponsored by the NIH Training Center. For more information call Dr. James C. Moone, 62497. □



Soubes Sandrine (l) and her preceptor, Dr. Nancy Trun of NCI's Laboratory of Molecular Biology, stand in front of her exhibit. This was Sandrine's first visit to NIH and according to Trun, "It is NIH's first time to have a summer student from France." Sandrine attends the Universite-Blaise Pascal/Clermont-Ferrand.

DES Offers Apprenticeships

The Division of Engineering Services Apprenticeship Program will begin accepting applications through Sept. 27. Any NIH employee with a minimum of 1 year of permanent status is eligible to apply.

The purpose of the apprenticeship program, started in 1978, is to develop highly skilled journey-persons and to provide upward mobility to NIH employees. The program consists of both on-the-job work experience and related academic training.

This year's openings include positions in the following trades: boiler plant operator, elevator mechanic, utility systems repairer operator, refrigeration/air conditioning equipment mechanic, painter, carpenter, and plumber.

Applications may be picked up in Bldg. 31, Rm. 2B-13. For more information contact Ron Poole, 23441.

Career Opportunities in the Trades
There's a Future in it!

Apply now for the Apprenticeship Program

- Carpenter
- Electrician
- Elevator Mechanic
- Equipment Operator
- Refrigeration/Air Conditioning Equipment Mechanic
- Boiler Plant Operator
- Painter

Open only to NIH employees with a minimum of one year permanent status. Call for more information.

Apprentices are now being accepted in the following trades: Bldg. 31, Rm. 2B-13, 202-23441.



Open August 30-September 27

ARTHRITIS

(Continued from Page 1)

initial report of this phenomenon by Dr. P. S. Hench, in the 1930's," says Dr. Lawrence E. Shulman, NIAMS director. "These researchers have used a creative approach to shed some light on this mystery" by examining the possibility that maternal-child disparities in certain genes may play a role, Shulman says. NIAMS supported this research along with the National Arthritis Foundation and the Western Washington Arthritis Foundation.

The reasons that rheumatoid arthritis improves in about three-fourths of pregnancies remain unclear, but the results of Nelson's study provide some possible explanations. She and her coworkers found that a particular set of genetic markers, known as HLA (human leukocyte antigen) class II genes, were more frequently dissimilar between mother and child in those pregnancies where the disease improved. HLA class II genes contain the molecular blueprint, or code, for HLA class II proteins. HLA proteins help the immune system distinguish between the body's own cells and foreign cells or organisms.

Nelson first became interested in the question of remission of rheumatoid arthritis during pregnancy when she read Hench's 1938 report of this phenomenon. She wondered what it was about pregnancy that could cause arthritis to improve. Nelson says she wanted to study this question because "I wanted to work in an area that might lead to a difference for my patients in my lifetime."

A flurry of earlier studies, spurred by Hench's observations, had failed to turn up evidence that hormonal effects could explain the amelioration of disease during pregnancy. After reading up on pregnancy, Nelson, who is a rheumatologist, concluded that "what is truly unique to pregnancy is the challenge to the immune system that occurs because half of the child's genes come from the father." These paternal genes code for proteins that are foreign to the mother's body. Normally, when the immune system encounters a cell or organism carrying proteins that mark it as foreign, an immune response is launched to defend the body against the intruder. This enables the body to fight disease, and is also responsible for rejection of transplanted tissues.

"During pregnancy," Nelson says, "the immune system of the mother has been shown to react to paternal HLA markers from the unborn child, but this is not detrimental to the pregnancy." The fact that the fetus is not rejected by the mother's body in these cases suggests that something happens that allows the mother's immune system to tolerate the presence of foreign HLA markers from the tissues of the unborn child.

The HLA class I and HLA class II proteins stamp the outside of cells with a unique set of markers that enables the immune system to distinguish between cells from its own body

("self") and those that are foreign ("nonself"). Susceptibility to autoimmune diseases, including rheumatoid arthritis, has been found to be associated with the presence of specific types of HLA markers. The connections between this observation and those made by Nelson and colleagues, if any, are not yet clear.

Nelson hypothesized that "the mother's immune response [to paternal HLA proteins in the fetus] may be important in pregnancy-induced improvement of rheumatoid arthritis." She predicted that, if this hypothesis was correct, then the greater the genetic differences between mother and child, the greater the mother's immune response and the more likely it was that the arthritis would improve or go into remission.

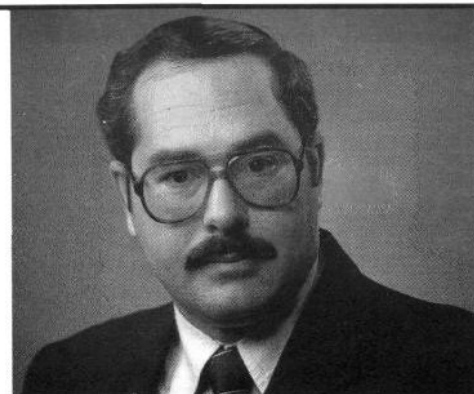
With the support of Dr. John Hansen, senior author on the paper, and help from area rheumatologists (especially from Drs. Jeffrey Carlin and Wayne Wallis) in finding patients, Nelson and coworkers set about testing her hypothesis. They studied 57 pregnancies in 41 women with rheumatoid arthritis. Of these 57 pregnancies, remission or significant improvement of rheumatoid arthritis occurred in 34. In 12 others there was no improvement. In the remaining 11 cases it was uncertain whether remission began during or before pregnancy; these cases were not analyzed further.

Genetic material (DNA) from women and children was analyzed for the presence of specific HLA genes. The researchers found that HLA class II markers of mother and child were frequently dissimilar in those pregnancies where rheumatoid arthritis improved; there were more similarities among these same markers in mother and child in most pregnancies where the disease did not improve. Particularly interesting were Nelson's findings in two women who experienced remission in one pregnancy but had active disease in another. In both pregnancies where the women experienced remission, there were more differences between HLA genes of mother and child than in the pregnancies where the disease was active.

These findings support Nelson's hypothesis and, she says "open a door to a whole new field for examination." The assumption, she says "is that something in the maternal immune response translates into a beneficial effect on her immune system," causing improvement of the rheumatoid arthritis. Future studies will focus on finding exactly what goes on in the mother's immune system, and determining how this information can be used to design new treatments that can cause amelioration of disease in all patients with rheumatoid arthritis. □

Men with Herpes Needed

Healthy men ages 18 to 55 with physician-confirmed genital herpes of at least 1 year duration are needed for an 18-month NIAID placebo-controlled study of a genital herpes vaccine. For information call 61836. □



Dr. Ralph M. Garruto, a supervisory research biologist in NINDS's Laboratory of Central Nervous System Studies, was recently elected president of the Human Biology Council, which represents scientists internationally who are committed to a basic understanding and multidisciplinary approach to the study of biological variation in populations worldwide. Garruto serves as president-elect/president of the council until 1996. His current research includes epidemiological and toxicological fieldwork in western China and the Pacific islands and laboratory research in neurobiology for which he recently received the NIH Director's Award.



Dr. Carl C. Floyd recently joined the Office of Technology Transfer staff as a licensing specialist. He manages the molecular and cellular biology technology portfolio on the cellular and growth regulation (A) team. Floyd is a 1993 graduate of the NIH Grants Associates Program. He received his M.S. and Ph.D. from Atlanta University/Morehouse College in cell biology and subsequently was a postdoctoral fellow at NINDS' Laboratory of Neurochemistry. Prior to coming to NIH, he was a research associate and coordinator of the Ernest E. Just research program at Morehouse College, where he studied the abnormal biochemical and structural properties of erythrocytes (red blood cells) from individuals with sickle cell disease. He recently received the NIH Director's Award for his participation in the Science Alliance Program.

ZAMBIA

(Continued from Page 1)

expenditures for all purposes are approximately \$1 per person per year. That includes the cost of therapeutic, preventive, and rehabilitative care. Only about 10 percent of necessary surgery can be performed because of lack of adequately trained personnel." There is one physician for every 22,000 residents.

Medical schools can't provide enough physicians to keep up with the growth of the population and the loss of physicians who emigrate to other countries, he explains.

In a country where the average income is about \$30 a month, that migration isn't hard to understand.

That's the reality volunteers faced when taking their expertise as anesthesiologists into the operating rooms and lecture halls at the University Teaching Hospital in Zambia's capital, Lusaka.

"We use our abilities as anesthesiologists to do what they want," Macnamara says, "not the other way around." The program's central goal is to help students and health professionals learn more about the practice of anesthesia within the constraints of technology and supplies available in Africa—not the high-tech operating theaters of the world's largest hospitals.

Those constraints were daunting. "We never had enough of anything," notes Macnamara. "Drugs on the shelf were often out of date. Sometimes they work, sometimes not. People seem to accept these things."

Blood transfusions were as dangerous as the conditions they are prescribed to treat. Malaria and hepatitis are widespread. Malnutrition and infections are common. "AIDS is rampant in the city. Every mother who delivered was in the high-risk age group [between 15 and 35] and had to be considered as HIV positive."

Surgical teams gather in the OR at about 7 in the morning. "The operating rooms consist of three—soon to be four—major suites." Patients arrive on wheeled stretchers. "There are no sides on the stretchers. The patients can fall off while they're sleeping," he says. "Money for equipment is nonexistent. Maintenance is difficult. All equipment is just old and worn out."

Surgery was constantly interrupted. "[There were] no masks, hats, linens. Sometimes the OR was closed due to lack of hot water, or steam for the sterilizer. Charts were relatively empty. Rarely was blood work done. You knew that patients were anemic and not in good shape." Staff estimated hemoglobin levels by checking patients' conjunctiva.

"One day we had no water, another day no soap. Another day no anesthesia masks. There was no oxygen on several occasions. The re-supply truck and backup truck both broke down delaying the start of surgery."

Gloves are recycled. Suction tubing is reused. Endotracheal tubes were reused until the cuffs

The University Teaching Hospital in Lusaka, Zambia, was selected to receive the program's first volunteers.



leaked. The daily OR schedule is a list scrawled in pencil on a scrap of carefully saved and reused paper. Since supplies are limited, everything—from soap to toilet paper—is kept locked up.

Macnamara's biggest surprise was being bitten by mosquitoes during surgery. "They come into the OR through holes in the roof."

But despite harsh conditions, the surgery is done well and the students are eager to learn, he says. "I could see an improvement in the knowledge of the students. This was marked in the student clinical officers who started as anesthesia clinical officers in district hospitals on July 1."

The three-story hospital itself comprises 1,800 beds and is spread over nearly three-quarters of a mile. Lush, groomed gardens grace the

supplied corn during last year's drought.

Zambia, formerly the British protectorate known as Northern Rhodesia, became independent in 1964. English is widely spoken. The world's fourth largest producer of copper, Zambia experienced a short-lived economic boom when its plentiful supply of the mineral was in demand in the 1970's. As that market has dwindled, Macnamara explains, there has been little money to keep up the maintenance of facilities built during the boom years.

Today Zambia is a country of garden plots. "People survive by cultivating the land," he says, "by growing bananas and oranges and sweet potatoes. A barter economy permits exchange of services in place of money."

The teaching hospital provides a cottage for the volunteers. Keeping up a supply of potable water proved a constant task for Macnamara and his wife. Water required boiling, not a quick task at an altitude of 4,000 feet above sea level. "We'd add fruit flavoring to make the water more palatable. We brought cooked cereal and usually used powdered milk. Because of the pollution we could not eat fresh vegetables, so everything was boiled as stew or soup," he explains. "This changed our diet quite markedly." Boiled water was necessary even for rinsing dishes.

Not only was the water polluted, its quantity was limited as well. The water supply was shut off nightly about 8. A resounding boom in the pipes announced the water's arrival again each morning at 6.

Macnamara and his wife visited Victoria Falls and a game park while in Zambia. "I saw many antelopes, zebras, and monkeys, but no elephants, hippos, or crocodiles. The most interesting visit was a 6-hour car ride to Chicuni, a Jesuit mission 200 miles from Lusaka, where we traversed the same path through the hills as the renowned Dr. David Livingstone."

Despite the shortages and shortfalls, Macnamara sees a lasting benefit from programs such as this volunteer teaching effort.

"I am better for having seen the problems in Zambia, the poverty, the good will, and the perseverance of the people." □

ASA Offers Teaching Assignments

The American Society of Anesthesiologists (ASA) sponsors a program to help alleviate the shortfall of anesthesia professionals in Africa. Funding for ASA's Overseas Teaching Program is through the Foundation for Anesthesia Education and Research in Anesthesiology. The 5-year program was begun in 1990. Volunteers serve 1- to 3-month stints in Zambia or Tanzania as teachers, emphasizing clinical practice in the operating room and lecture hall. The University Teaching Hospital in Lusaka, Zambia, was selected to receive the program's first volunteers. It was picked because it offered a large number of medical students, the strong support of hospital and medical school officials, and an anesthesia residency.

medical complex grounds. "The landscaping is excellent and is supervised by the wife of the country's president," Macnamara points out. "Landscaping is her special area of interest."

The hospital depends on the help of other countries to keep its doors open, he notes. Japan has funded the pediatric ward. Ireland supports obstetrics. The United Kingdom supplements physician salaries. U.S. funds

The NIH Life Sciences Education Connection

In the next few months almost every teacher in the country will have a chance to learn about the precollege science education programs offered by the Department of Health and Human Services and other federal agencies.

The *Guidebook to Excellence*, due out late this fall, is a major collaborative effort among the 16 federal agencies that comprise the Federal Coordinating Council for Science, Engineering and Technology (FCCSET) committee on education and human resources (CEHR), as well as the Eisenhower National Clearinghouse, and the 10 Eisenhower Consortia.

The booklet will have a section for each of the agencies that are working through the FCCSET CEHR process to improve the quality of math and science education in the country. Each agency's section will begin with a quote from the agency's secretary,

followed by information on the background of the agency and its mission, the agency's role in mathematics and science education at the

graduate/undergraduate level, precollege and general public level and a brief description of how the agency's math and science programs are administered.

One of the benefits of this type of "guidebook" is the section that focuses on national precollege math and science programs. This section will contain a brief summary of each agency's national programs as well as a contact point, phone number and address for each listing. A state highlights section will also be featured. This will provide users with information about the facilities that are available to them in their own community.

The NIH Office of Science Education Policy, the National Center for Research Resources, the Office of Education and the Office of Communications have worked together to provide input into the latest draft of this booklet. Representatives from the Eisenhower National Clearinghouse have been spearheading this effort for the FCCSET CEHR.

Clearinghouse personnel are also working with FCCSET CEHR agencies to develop the Eisenhower National Clearinghouse, which will provide teachers with a central source through which they can locate instructional materials for teaching science and mathematics for grades K-12. The clearinghouse will collect, store, and disseminate the materials to teachers nationally.

This column will keep you posted on the development of both the guidebook and the clearinghouse.



Do We Practice What We Preach?

New Employee Health Promotion Program Launched

We government employees are living in a time of reduced resources, increased workloads, and, consequently, increased stress. As people working at NIH—the world's largest biomedical research organization, whose research produces significant findings on improving health and quality of life—are we willing to change our personal behaviors if it means our own better health? If so, under what conditions? How can the workplace help?

These are basic questions facing the new worksite health promotion action committee, which has been working quietly for several months defining its mission and discussing courses of action. The committee is headed by Susanne Strickland, who has an M.S.

in nutrition and special expertise in exercise and weight control. She is on the staff of the Office of Disease Prevention and was hired to coordinate all existing and new NIH worksite health promotion activities. In describing what these activities might encompass, Strickland said she takes a very broad approach. "There is a definite mind/body connection in health promotion," she said. "It includes exercise, nutrition, weight management, blood pressure and cholesterol control, weight management, work and family issues, and stress management, as well as analysis and possibly change of policies that create stress."

Following visits to individual ICD directors, all of whom indicated their support for the program, Strickland and Dr. William Harlan, NIH associate director for disease prevention,

Recently health promotion programs have shifted away from the negative to a holistic approach that operates more on the pleasure principle.

asked that representatives be nominated to serve on the newly created committee. After interviewing 46 nominees, Strickland selected 18 as members, based on their philosophy of wellness and commitment to giving time to the committee.

"I tried to get a well rounded group," she explained. "There are health nuts, couch potatoes, and smokers who serve. There are ethnically diverse men and women scientists, secretaries and administrative employees. They are not selected to be role models, but to be spokespeople for particular groups and areas of concern."



Worksite health promotion action committee (row 1, from l) Barry Portnoy, NCI; DeDe Daniels, NIDDK; Susanne Strickland, OD; William Harlan, OD. Row 2: Michael Hart, OD; Ann Baldwin-Nucci, NIA; Kimberly Harley, NEI; Mary-Beth Gallagher, NHLBI; Nancy Sebring, CC; Linda Cook, NINR. Row 3: Sidney McNairy, NCRR; Steven Berkowitz, NIAID; Terry Mundell, OD; Bob Garrison, NHLBI; Ivan Hernandez, NIAID; Frank Hempel, NINDS; Steve Gordon, NIAMS. Not shown are Helen Gift, NIDR; and Lucretia Coffey, OD.

Current committee activities include distributing a survey to a random sample of employees to find out what they want and need. Survey results will then help the committee develop a strategic plan of action. The committee also oversees a subcommittee that is planning an NIH health fair next May.

There is a lot of catching up to do, since the federal government is about 10 years behind the private sector in mounting worksite health promotion programs. And NIH activities are not on par with what many other federal agencies are offering their employees. Recently health promotion programs have shifted away from the negative (i.e., if you don't control your blood pressure, you'll have heart attack), to a holistic approach that operates more on the pleasure principle (i.e., how can your life be more healthy and satisfying?).

"We're here to help NIH employees make choices about what they would like to change about themselves, and then help them make those changes," Strickland said.

Her vision for the health promotion program is that it become part of the NIH corporate culture, with employees' health needs being considered in such decisions as types of food in the cafeteria; ways policies should be developed or changed to reduce unnecessary stress; support groups; and the availability of health classes and screening.

"I want this program to reflect both real and perceived needs," she said. "That's why I'm here, and I have a great committee to help." □



TRAINING TIPS

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

<i>Courses and Programs</i>	<i>Starting Dates</i>
<i>Management and Supervisory</i>	66371
Influence and Negotiation	9/13
Managing Stress, Maximizing Effectiveness	9/21
Introduction to Supervision	9/20
<i>Office Operations and Administrative Systems Training</i>	66211
Writing Fundamentals II	9/8
Editing: An Introduction	9/8
NIH Correspondence: Letter and Memo Preparation	9/28
Creating and Maintaining Filing Systems	9/30
Secretarial Survival	9/21
Time Management for Office Support Personnel	9/27
Developing Assertiveness	9/22
Reducing Stress: Rebuilding Energy for Office Support Personnel	9/21
Listening and Work Relationships	9/24
<i>Personnel Management</i>	66211
Management Control Training	9/9, 13, 29
<i>Special Courses</i>	66211
American Sign Language-Level I	9/14
American Sign Language-Level II	9/14

Lillian Pubols Joins DRG as Scientific Review Administrator

Dr. Lillian Pubols has joined the Referral and Review Branch, DRG, as scientific review administrator of the neurology B1 study section. Before coming to NIH, she was a senior scientist at the Robert S. Dow Neurological Sciences Institute and adjunct professor of physiology at the Oregon Health Sciences University in Portland.

She received her A.B. from Douglass College, Rutgers University in 1961, and her Ph.D. in 1966 from the University of Wisconsin, Madison. Her academic honors and fellowships include Phi Beta Kappa, Psi Chi, Beginning Knapp fellow, National Science Foundation cooperative fellow, and Fogarty Senior International fellow.

After earning her Ph.D., she continued her career at Pennsylvania State University as a research assistant, and in 1971 became assistant professor of anatomy. In 1972, she was a visiting senior research fellow at the Royal School of Veterinary Studies, University of Edinburgh, Scotland. In 1982, she joined the Robert S. Dow Neurological Sciences Institute, Good Samaritan Hospital and Medical Center, Portland, Ore., as a senior scientist.

Pubols is a member of the American Association of Anatomists, the Society for Neuroscience, the International Association for the Study of Pain, and the American Pain Society. She has served NIH as a member of NIDR's board of scientific counselors, the behavioral and neurosciences 1 study section, the sensory disorders and language study section, and the neurological sciences 2 study section.

She also reviewed NSF research grant applications and manuscripts submitted to *Behavioral*

ORWH, OE Expand Reentry Program

For the last 2 years the Office of Research on Women's Health has provided support for individuals in the extramural community who wish to reenter training after postponing careers in research due to family responsibilities. ORWH is now expanding these efforts to include the intramural community.

In conjunction with the NIH Office of Education, a training program has been developed for candidates who have a doctoral degree (M.D., Ph.D., D.D.S., D.M.D., D.O., or equivalent), who have demonstrated prior excellence in research, and whose long-term career goals are to continue a career in biomedical research. The candidate must have a career gap of no less than 2 and no more than 8 years. This hiatus must be for reasons of family responsibilities.

Support will be available for 2 years with a third year of support to come from the intramural preceptor. Candidates wishing to apply, investigators wishing to sponsor a candidate they have identified, and those interested in serving as preceptors should call Dr. Mary McCormick, OE, 21914. Candidates will be accepted on a rolling basis and can begin as early as fall 1993. □



Dr. Lillian Pubols

and Brain Sciences, Experimental Brain Research and the *Journal of Neurophysiology*. She coedited *Effects of Injury on Trigeminal and Spinal Somatosensory Systems*, and has written and published more than 40 scientific papers. □



DCRT director Dr. David Rodbard (l) recently honored Los Alamos National Laboratory's Dr. Alan S. Lapedes with a certificate of appreciation for his July seminar series on research in computational molecular and structural biology.

Interested in a Science Career?

Are you an academically talented minority student in your junior or senior year of college? Or in your first year of graduate or medical school? Are you interested in a career in biomedical research?

NIAID offers the Introduction to Biomedical Research Program that acquaints academically talented minority students with career opportunities in biomedical research.

"This program offers minority students from across the country an in-depth and intense 4-day introduction to NIAID-NIH," said Vincent A. Thomas, program director. "This initiative grew out of the institute's concern about the underrepresentation of minorities in the scientific pool. Our goal is to increase the number of minority scientists."

Approximately 55 students will be selected for the 1994 program, scheduled for Feb. 6 to 10. They will attend a series of lectures by NIH scientists and will tour the Clinical Center. They will have face-to-face discussions with scientists about current research initiatives and advances as well as career concerns. All participants will be provided with expenses and round-trip transportation to NIH.

The students also will have the opportunity to apply for summer positions in NIAID's Division of Intramural Research. These jobs provide opportunities to increase students' knowledge and understanding of biomedical research, career paths and the types of positions available at NIH.

Applicants must have a 3.0 or better GPA and be recommended by the deans and faculty members of their schools. Selection is based on these recommendations and the students' personal and academic achievements.

For an application packet, contact NIAID at Bldg. 31, Rm. 7A19, phone 64846. The completed application packet must be received at NIAID from the dean or chairperson no later than Dec. 3. Applicants will be notified by letter about final selections of participants after Dec. 17. □

Summertime Fish Fry



Blacks in Government (BIG), in cooperation with the R&W, is sponsoring a "Summertime Fish Fry" on Thursday, Sept. 16 from 11:30 a.m. to 1:30 p.m. on the patio of Bldg. 31. BIG is a national organization of federal, state and local employees committed to improving the quality of public service by promoting equality of opportunity and excellence in government.

The trout dinner will include hush puppies, apple sauce, potato chips, soda, and a popsicle for dessert. In addition to live entertainment, raffle tickets will be sold, with prizes that include USAir Arena (Capital Center) tickets, and a "Get-Away-Weekend." Vendors will also be in attendance with popular items for sale.

Tickets for the "Summertime Fish Fry" will cost \$5 each and will be sold in advance at R&W locations as well as other campus sites. □

Minority Student Apprentices Explore World of Biomedical Research at NIH

Local D.C. area participants in NCRR's Minority High School Student Research Apprentice Program (MHSSRAP) visited NIH recently for a day of exploration into the world of biomedical research.

MHSSRAP is designed to foster interest in science and medicine among minority youth.

About 50 student and teacher apprentices from the University of the District of Columbia, Georgetown University School of Medicine, Children's Hospital National Medical Center, Howard University School of Medicine, Howard University, and George Washington University spent the day touring NIH facilities to better understand the diverse activities here.

"I really enjoyed the Veterinary Resource Program laboratories we visited," said Gwendolyn Logan, an apprentice at Howard



MHSSRAP apprentices watch Dr. Myrna Mandel conduct an experiment in NCRR's Veterinary Resources Program genetic monitoring laboratory.

Cathedral School and apprentice at Georgetown, said she felt challenged by the speakers and presentations, and aspires to excel in science as an African-American woman.

MHSSRAP, which is run by NCRR's Biomedical Research Support Program, sponsors more than 3,000 students in apprentice programs throughout the country.

The program also sponsors about 600 science teachers who are minority members or who teach a significant number of minority students. This gives the teachers the opportunity to learn the latest scientific technology and procedures so they can pass the knowledge on to their students.—Kathleen Canavan



MHSSRAP participants tried their hand at interactive computer programs in NLM's Learning Center for Interactive Technology.

University School of Medicine, and a science teacher at Coolidge High School.

"I thought the demonstration about Grateful Med and MEDLINE at NLM was very interesting because I've used MEDLINE for the cancer work I'm doing this summer," said Sherita Crowder, a Coolidge High School senior and apprentice at Georgetown.

In addition to making stops at several NIH locations, the apprentices also listened to presentations by Dr. Roger Estep, special assistant for extramural research resources at NCRR; Dr. Kevin Gardner, a pathologist with NCI; and Roslyn Ammons, an industrial hygienist at the Division of Safety and former MHSSRAP participant.

Kimberly Jackson, a senior at National



Above: A teacher apprentice watches as Christina Pasa prepares a tissue sample slide in the histology laboratory of NCRR's Veterinary Resources Program.

Below: D.C. area participants in NCRR's Minority High School Student Research Apprentice Program recently toured the NIH campus.

