

"Still
The Second
Best Thing
About Payday"

The NIH Record

Bright Idea Born of Necessity

EDISON Project Helps NIH Track Its Progeny

In a salute to the season, the Record is attempting to create its own summer blockbuster (somewhat of a Mission: Impossible) by featuring a series on NIH's reinvention initiatives. This is the second article in the series.

Let the misconception perish right here that all reinvention initiatives were born innocently of bright ideas in service of streamlining and downsizing government: a project known as EDISON is the clever result of an embarrassing session before Congress when NIH had fingers waved in its face.

So admits Sue Ohata, director of the Division of Extramural Inventions and Technology Resources. Now that the statute of limitations is up on feeling awkward about it, the tale can be told: there was a time not so very long ago when NIH didn't have a just-exactly-perfect handle on the inventions it seeded with extramural grant money.

According to the Bayh-Dole Act of 1980, which encouraged technology transfer from government-sponsored studies to private sector profitability, NIH was supposed to be keeping close tabs on the creativity of its grantees. If they made a discovery, we were to be informed; if they proceeded to seek a patent, we were to know; if they won a patent, then gained a license, guess who should have been tipped off?

To encourage grantee institutions to commercialize their inventions into products that benefit everyone's health, Bayh-Dole gave them patent rights which, prior to the act, reverted to the government. In return for this favor, the grantee institutions are required to report on milestones along the invention/patent/licensing highway.

"There is a lot of tracking involved in keeping up with all our grantees," said Ohata, "and we had only a rudimentary database. The technology wasn't there, or the staff, to properly track inventions," at the time Bayh-Dole was enacted. Just a few years

(See **EDISON**, Page 2)

ACD Addresses Thorny Topics at 72nd Meeting

By Carla Garnett

Topping the agenda of the 72nd meeting of the advisory committee to the NIH director (ACD) were two issues that have also grabbed national headlines in recent days—AIDS research and misconduct in science. NIH director Dr. Harold Varmus gathered with the 15 ACD members, 20 some ICD council and board representatives, several invited presenters and top-level agency staff to deliberate NIH's responses to those and several other weighty matters on June 17.

'Blueprint' in Brief

After brief welcoming remarks by Varmus, attention turned to a summary of the Report from the NIH AIDS Research Program Evaluation Working Group given by the group's chair, Dr. Arnold Levine of Princeton University. Released to the public in March, the report is the result of a 15-month independent study conducted by the

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'Respect for Learning'

NIH Hosts 24th Annual Asian/Pacific Islander Heritage Program

NIH's annual program to acknowledge the rich culture and contributions of Asia and the Pacific Island region was held recently. Themed "Respect for Learning," the event featured its ever-popular lunchtime food festival that included cuisines from China, Japan, Thailand and India, as well as demonstrations of calligraphy and bonsai care. The evening program showcased Asian music, dance and history, in addition to an awards ceremony. See more photo coverage on Page 4.



Choreographed especially for NIH's annual event, "Respect for Learning," the grand finale of the evening program combines dances from Japan, Cambodia, India and Indonesia.



Shirley Yu of NEI demonstrates the art of Chinese calligraphy during the lunchtime program of NIH's 24th annual Asian/Pacific Islander Heritage program.

EDISON

(Continued from Page 1)

ago, "the office was really hobbling along, short-staffed, and paper-intensive. "Both the universities and NIH needed a shared, common data base," said Ohata. "We would be able to acknowledge their actions and they would be able to see our response."

Ohata and her cohorts seized on an electronic data system based on interactive use of the World Wide Web. "When we saw that, we knew it's what we wanted."

Ohata hired an experienced Internet surfer out of Rutgers, and proceeded with the idea to electrify invention reporting. "The technology was there, and our web specialist insisted that 'Yes, it can be done!'" Ohata recalls. And so, despite warnings from some computing gurus that the solution would not work, Ohata said that, with the support of Dr. Wendy Baldwin, NIH deputy director for extramural research, "We got the money to do a prototype to see if it would work, and it did."

Some 50 schools are now authorized to use the new system, dubbed EDISON, after the famous inventor. These institutions can access EDISON directly through the Internet via any one of several web browsers.

"When EDISON was first introduced it was probably one of the first web sites that used a web browser to receive information in a common, shared database," Ohata explained.

"Our success has encouraged the next big project: an interagency group organized by the Commerce Department, set on making EDISON the common face to the government for all invention reporting." The Department of Agriculture, National Science Foundation, Navy, Air Force, and State Department-Agency for International Development will adapt EDISON for their purposes. "NIH has lots of grantees in common with these agencies," Ohata notes.

Grantee organizations will then go to one web address for all invention reporting; with a click they can identify the agency they want to contact. Two of the agencies, Agriculture and NSF, want to use NIH's server (located in the Clinical Center "under lots of locks," said Ohata) for this purpose.

EDISON "streamlines not only NIH's work, but also the work of the people we're serving," Ohata said. She's especially proud that her office came into compliance with Bayh-Dole with the

same number of staff as were originally assigned to the office.

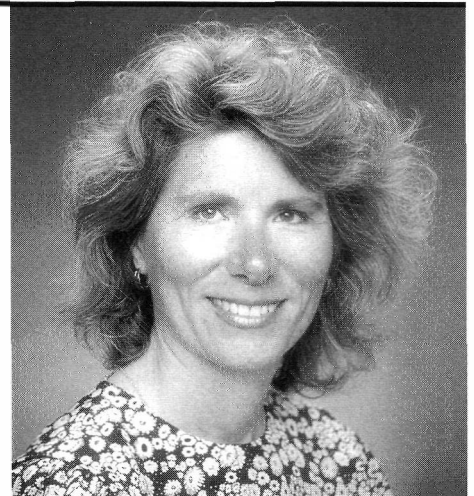
Other "next steps" for EDISON include plans to offer differential access to information in EDISON in the future to other NIH components with a need to use invention data—grants management offices, technology transfer offices and program planning offices. Ohata pointed out, "Once NIH staff can be incorporated into this stewardship loop, EDISON functionality will truly represent a model for future electronic research administration interfaces now being developed at NIH."—Rich McManus □



Shelby Buford, Sr., associate director of the Office of Contracts Management, Office of Administration, OD, recently received a National Association for Equal Opportunity in Higher Education (NAFEO) 1996 Distinguished Alumni Citation of the Year Award. As a graduate of Alcorn State University, a historically and predominantly Black university, he was honored for making significant contributions to American society during NAFEO's 21st National Conference on Blacks in Higher Education, which provides an annual forum for issues concerning Blacks in higher education. Buford is a native of Oxford, Miss., and graduated cum laude with a bachelor's degree in business from Alcorn State. He joined NIH in 1973.

Clinicians Urgently Needed

The Washington Free Clinic needs volunteer clinicians such as physicians, physician assistants, nurse practitioners and nurse midwives. A few hours each month will assist in efforts to serve an ever-increasing number of low-income patients. Call Corinna Britton, volunteer coordinator, for more information, (202) 667-1106. □



Dr. Carole Heilman, a virologist with broad experience in infectious diseases, vaccinology and international health, has been named associate director for scientific program development of the NIAID Division of AIDS (DAIDS); she will also serve as deputy director of DAIDS. She comes from NIAID's Division of Microbiology and Infectious Diseases (DMID), where she served as program coordinator for infectious diseases and chief of the respiratory diseases branch. Heilman came to NIH in 1978 as a postdoctoral research associate at NCI, where she subsequently served as a senior staff fellow. She joined NIAID in 1986 as a program officer for influenza and viral respiratory diseases in DMID. In 1988, she was appointed chief of the DMID respiratory diseases branch, and since 1995 also served as program coordinator for infectious diseases in DMID.

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New Light Shed on Mother-to-Infant HIV Transmission

HIV-infected women who give birth more than 4 hours after rupture of the fetal membranes are nearly twice as likely to transmit the virus to their infants, compared to women who deliver within 4 hours of membrane rupture, according to a study funded by NIH and reported in the June 20 issue of the *New England Journal of Medicine*.

Rupture of the fetal membranes, the protective sac that surrounds the fetus in the womb, is what occurs when a woman's "water breaks." Maternal drug use during pregnancy, low prenatal CD4 lymphocyte count and low infant birth weight also were independently associated with increased risk for mother-to-infant HIV transmission.

Approximately 7,000 HIV-infected women give birth in the United States each year. Without treatment, about

one-fourth of them transmit the virus to their children.

In 1994, an NIH-supported clinical trial, ACTG 076, proved that the anti-HIV drug zidovudine (AZT), given to HIV-infected pregnant women before and during childbirth and to their infants after childbirth, reduces HIV transmission by as much as two-thirds. Treatment with AZT is now the standard of care in this country for preventing HIV infection in infants, although scientists believe factors other than the virus itself also contribute to infants' risk of infection.

In the current study, researchers assessed the role that various childbirth conditions and maternal factors play in perinatal transmission. The investigators collected detailed medical information from 525 HIV-infected women enrolled

in the Women and Infants Transmission Study, a long-term research project funded by NIAID, NICHD and NIDA. Study sites included several hospitals in Massachusetts as well as in New York City, Chicago and San Juan, Puerto Rico. Women in the study received standard medical care throughout their pregnancies. Approximately 20 percent of the women received AZT prior to delivery: some were co-enrolled in ACTG 076, others were prescribed the drug to combat their HIV infection. Infants were tested for HIV at regular intervals until they were 18 months old.

HIV infection occurred in 25 percent of babies born to women whose fetal membranes ruptured more than 4 hours before delivery. In contrast, HIV was transmitted to only 14 percent of babies whose mothers gave birth less than 4 hours following membrane rupture. □

Role of Telomerase In Early Detection of Cancer Is Debated

For a day and a half, researchers from around the world met to debate the role of telomerase in the early detection of cancer. Although it is one of the most widespread cancer markers discovered, it was not known, until now, if telomerase has any clinical utility.

There was general consensus by the end of the conference that telomerase may prove useful for early diagnosis of at least two types of cancer, breast and lung, and for predicting disease outcome for meningiomas and stage IV neuroblastomas, specific types of brain tumors. Several other areas show promise.

The workshop, organized by Dr. Sudhir Srivastava, program director of the Early Detection Branch, NCI, and cochaired by Drs. Adi Gazdar and Jerry Shay of the University of Texas Southwestern Medical Center, took place on June 6-7 in the Natcher Conference Center.

"This meeting was a very important step to guide the future of telomerase research and its use as a molecular marker for cancer diagnosis," said Srivastava. "The short presentations allowed ample time for discussion, and will help us prioritize which directions are most important to pursue."



Researchers from around the world met at the Natcher Conference Center to debate the role of telomerase in the early detection of cancer.

FAES Announces Fall Course Schedule

The FAES Graduate School at NIH announces its schedule of courses for the fall semester. The evening classes sponsored by the Foundation for Advanced Education in the Sciences will be given on the NIH campus.

Tuition is \$100 per credit hour, and courses may be taken for credit or audit. Courses that qualify for institute support as training should be cleared with supervisors and administrative officers as soon as possible. Both the vendor's copy of the training form and the FAES registration card must be submitted at the time of registration.

Courses are offered in biochemistry, biology, biotechnology, chemistry, immunology, languages, medicine, microbiology, pharmacology, psychology, psychiatry, statistics, toxicology, administration and courses of general interest.

It is often possible to transfer credits earned to other institutions for degree work, and many courses are approved for AMA category I credit.

Classes will begin Sept. 16, mail registration ends Aug. 9, and walk-in registration will be held from Sept. 4-10. Fall catalogs are available in the graduate school office in Bldg. 60, Suite 230; the Foundation Bookstore, Bldg. 10, Rm. B1L101; and the business office, in Bldg. 10, Rm. B1C18. To have a catalog sent, call 6-7977.

Highlights from the 24th Annual Asian/Pacific Islander Heritage Program



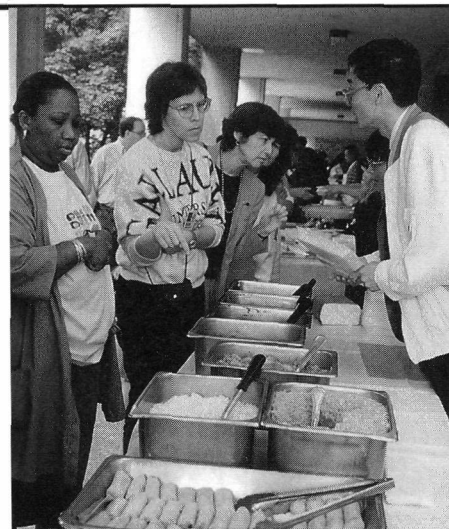
A mother-daughter team performs the Indian Classical Dance. Above, daughter Anila Kumari dances under watchful eyes of mom Nilimma Devi (below), artistic director of the Sutradhar Institute of Dance and Related Arts, who also choreographed the grand finale, "Respect for Learning."



Dr. Shuko Yoshikami (l) of NIDDK, John Medina, III, of OEO, Dr. Victor Fung of NCI and Prahlad Mathur of OD, all of whom had a hand in coordinating the event, take time out for lunch during the food festival.



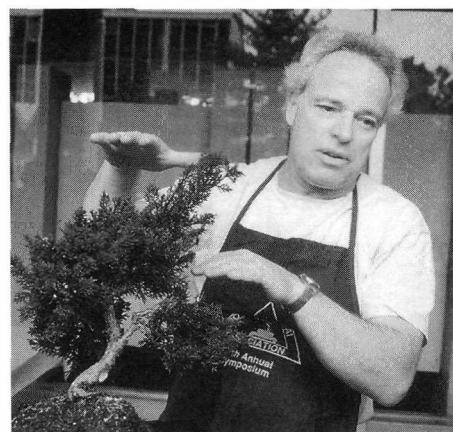
As usual, lunch sales are brisk at the noontime Asian food festival held outside Bldg. 31.



Dancer performs a Cambodian classic.



The Indonesian Classical Dance is performed during the May 24 evening program, which concluded the festivities.



Jim Sullivan of NCRR, an expert on the care and feeding of bonsai plants, gives cultivating advice.



The NIH Asian/Pacific Islander American advisory committee announced the recipients of the 1996 annual outstanding achievement in science and/or administration awards during the evening program. Shown are (front, from l) recipients Dr. Victor Fung, NCI; Dr. Rita Liu, NIDA; Dr. Khursheed Asghar, NIDA; and presenter Dr. George Alexander; and (back from l) awardees Dr. Opendra Sharma, NIAID; Dr. Carl Ohata, NHLBI; Dr. Susan Streufert, NICHD; and presenter John Medina, III.

NINDS-Funded Clinical Trial Leads to Stroke Therapy

An emergency drug treatment for stroke was approved June 18 by FDA, following a 5-year clinical trial funded by NINDS. The trial demonstrated that treatment with the clot-dissolving drug t-PA was an effective emergency treatment for acute ischemic stroke despite some risk from bleeding. Results were first published in the Dec. 14, 1995, issue of the *New England Journal of Medicine*.

The nationwide study of more than 600 carefully selected stroke patients found that those treated with t-PA within 3 hours of their initial stroke symptoms were at least 30 percent more likely than untreated patients to recover from their stroke with little or no disability.

"The FDA action means that we now have an approved emergency treatment for stroke, the leading cause of adult disability," said Dr. Zach W. Hall, NINDS director. "This is an exemplary demonstration of careful scientific investigation and of the power of partnership between industry, academia and the federal government."

The next step, according to Dr. Michael D. Walker, director of NINDS's Stroke and Trauma Division, will be developing a national educational approach to reach the many members of the public who must be involved in this new treatment. "A bold three-tiered program is envisioned in which patients, their families and friends must become aware of the signs of stroke and the need for prompt action; physicians and medical personnel must become familiar with diagnosis and treatment regimens; and emergency medical systems in the field and in the hospital must become accustomed to rigid timetables, rapid scanning and the need for immediate treatment."

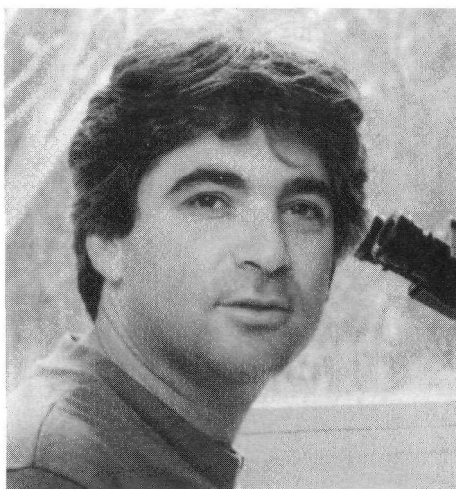
Each year, about 500,000 Americans suffer a stroke. As the third leading cause of death in the country after heart disease and cancer, stroke kills about 150,000 Americans each year. The overall cost of stroke to the nation is estimated to be \$30 billion a year in today's dollars. □

Blue Cross/Blue Shield Service Day, July 9

Blue Cross/Blue Shield of the National Capital Area will be on the NIH campus Tuesday, July 9 to assist enrollees who have claims or enrollment problems. A representative will be available from 9 a.m. to 3 p.m. that day in Bldg. 31, Conf. Rm. 9, armed with a laptop computer to access directly the enrollee's records at company headquarters. No appointment is necessary. Assistance will be provided on a first-come, first-served basis. Blue Cross/Blue Shield will be on campus 1 day each month from now on. □

Callender To Deliver Annual Diggs Lecture, July 18

The second Annual John Diggs Lecture—cosponsored by the NIH Black Scientists Association, NIH's Office of the Director, NIAID, NINDS, and NHLBI—will be held on Thursday, July 18 in the Natcher Auditorium from 11:30 a.m. to 1 p.m. The title of the program will be "Organ Donation/Transplantation: Issues for Minorities." The keynote speaker will be Dr. Clive O. Callender, director of the Howard University Hospital Transplant Center. His talk will be followed by a panel discussion. All are welcome.



Dr. Michael S. Levine, a professor of biology at the University of California, San Diego, and an NIGMS grantee for the past 12 years, recently received the National Academy of Sciences Award in Molecular Biology. The award is presented annually for "a recent notable discovery in molecular biology by a young scientist." Cited for his "insightful contributions to our understanding of gene regulation networks and molecular mechanisms governing the development of organisms with a segmented body plan," Levine received the award, its \$20,000 prize, and a bronze medal during the academy's 133rd annual meeting. His research has focused on studying the fruitfly to identify the "master regulatory" genes that control development.



Dr. Warren Leonard, chief of NHLBI's Laboratory of Molecular Immunology, has received the 1996 Outstanding Investigator Award for basic science from the American Federation for Clinical Research (AFCR) Foundation. The award was presented during a ceremony at AFCR's recent annual meeting in Washington, D.C. Leonard's studies have clarified many features of cytokine signaling. He has been a leader in interleukin-2 (IL-2) receptor research since the field began and his work has included investigations of both the receptor's structure and molecular regulation. In 1981, he came to NIH, first in NCI and then in NICHD. He joined NHLBI in 1991 and took on his current position in 1995. With Leonard above is AFCR president Dr. Veronica Catanesi.

NCI's Klee Honored by FASEB

The Federation of American Societies for Experimental Biology chose Dr. Claude B. Klee to receive the 1997 FASEB Excellence in Science Award. She will present the award lecture at the annual Congress of the American Society for Biochemistry and Molecular Biology in August 1997.

Chief of NCI's Laboratory of Biochemistry, she is being recognized for her important discoveries of the mechanisms involved in calcium regulation of cell growth and her contributions to the study of abnormal growth in cancer. Her work on calcium regulation in nerve cells has been important in understanding how cells communicate with each other in the brain.

Klee has directly contributed to the high quality of research through her extensive editing responsibilities. Refereeing and editing of scientific manuscripts is the critical activity that promotes standards in scientific research. Klee has a worldwide reputation as an active and extremely vigorous editor. □

ACD MEETING EXAMINES AIDS RESEARCH, MISCONDUCT IN SCIENCE

(Continued from Page 1)

118-member working group on NIH's entire AIDS research effort. The 60-page critique—available in full online on NIH's WWW homepage—was commissioned by the advisory council of NIH's Office of AIDS Research and, earlier this spring, was seen largely as a "blueprint for restructuring" the agency's \$1.4 billion battle against the disease.

Chief among some 14 recommendations made in the report, Levine said, is the need for increased support for and improved peer review of investigator-initiated research. "The committee did not ask for an increased budget," he clarified, "but for changing the priorities within the existing budget." The working group recommended doubling the percentage of the extramural HIV/AIDS budget used to fund investigator-initiated research grants.

Levine also encouraged recruitment of additional talented soldiers for the AIDS war not only at NIH but also nationwide. "We all need to look actively for ways to bring people into the AIDS research community and increase the research base," he said, explaining that the majority of the working group's recommendations urge opening more fully NIH's AIDS resources—funding, repositories and databases, and regional primate centers, for examples—to a broader range of outside researchers.

Divide and Conquer

Following Levine's report summary, OAR director Dr. William Paul described NIH's plan to implement the advice of the working group. He explained that OAR would take a 2-pronged approach to putting the recommendations in place by dividing them into key categories—scientific and structural.

Key scientific issues include establishing a restructured trans-NIH vaccine research effort, augmenting research on the human immune system, developing a comprehensive NIH/HIV Prevention Sciences Research Agenda that will include study of behavioral sciences, restructuring the drug discovery research effort, enhancing basic science research on AIDS-associated opportunistic infections and strengthening the scientific base for assessment of complemen-

tary and alternative medicine therapies for HIV.

Major structural issues include the reprioritization of investigator-initiated research that Levine mentioned and clarification of the definition of AIDS and AIDS-related research, an implementation in which, Paul stressed, "ICD directors will play a fundamental role."

Also among OAR's structural strategies is integration of all NIH adult clinical trials—such as NIAID's AIDS Clinical Trials Group and Community Programs for Clinical Research on AIDS—into a single network. "There is a need to bring these together in a way that maximizes their utility without building a monolithic structure too large to be effective," Paul said.

The remaining structural issues involve opening regional primate research centers to non-center scientists, strengthening AIDS research centers to promote multidisciplinary research, ensuring accessibility to central repositories and databases and upgrading the NIH AIDS Research Information System. The final recommendation to be implemented is a provision for NIH to reinforce its commitment to maintaining a strong and well-led OAR.

'Longstanding and Contentious'

The ACD next discussed a topic that seldom fails to produce passionate debate among researchers—misconduct in science.

"This is a longstanding and contentious issue in the scientific community—especially in the last decade—with the problems developing in part from [having] different definitions of misconduct in different agencies and different kinds of responses by different regulatory bodies," said Varmus. "The occasion for our discussion today is to raise the current status of our understanding of misconduct and how we should be responding to it as an institution."

Dr. William Raub, DHHS science advisor and former NIH deputy director; Dr. Bruce Alberts, National Academy of

Sciences president; and Dr. France Cordova, NASA chief scientist, were invited to present viewpoints on the issue.

Raub began the discussion by summarizing the work of the Implementation Group on Research Integrity and Misconduct (IGRIM), which undertook the task of evaluating 33 recommendations to DHHS Secretary Shalala by the Commission on Research Integrity (CRI, also known as the Ryan Commission).

According to its November 1995 final report, CRI's mandate—established by Congress in the NIH Revitalization Act of 1993, in response to continuing misconduct in research and retaliation against whistleblowers—included devising "a new definition of research misconduct, an assurance process for institutional compliance with DHHS regulation, mechanisms by which to respond to and oversee related administrative functions and investigations, and development of a regulation to protect whistleblowers." The secretary has not yet taken final action on the CRI recommendations.

IGRIM, chaired by Raub, had an overall favorable response to the commission's findings, urging HHS to adopt 23 of the 33 recommendations. Three recommendations should be deferred and four should be declined, Raub enumerated. Two other recommendations were deemed already ongoing and the last was judged to be primarily a concern of the scientific community and out of governmental purview.

"No significant development—from

what the commission has recommended or what the working group has added—will, can or should be done precipitously by the department," cautioned Raub, explaining that DHHS must formulate and publish a proposal of what it wants to do, and then solicit public comment on that proposal before any steps are taken toward implementation.

Defining Moments

Spirited disagreement ensued among ACD and board members, centering on what was called the "ambiguous" definition of misconduct coined by CRI and virtually glossed over by IGRIM's review of the commission's report. Many participants felt that a clear definition must be the cornerstone of any effective misconduct guidelines, and that,

"We all need to look actively for ways to bring people into the AIDS research community and increase the research base."

"If scientific research is beset with paperwork and regulation, much of the joy and creativity in doing science could disappear."

not having determined an acceptably narrow meaning of the term, the commission's whole report should be rejected out of hand.

At issue were these words from CRI's report: "Scientific misconduct' means fabrication, falsification, plagiarism, or other practices that seriously deviate from those that are commonly accepted within the scientific community for proposing, conducting, or reporting research. It does not include honest error or honest differences in interpretations or judgments of data."

Alberts led the charge against the recommendations during his presentation, admitting that he and others at NAS were "disappointed with the CRI report" for a number of reasons, namely the "vague, open-ended definition," in addition to several of the recommendations that seem to inhibit investigation of legitimate misconduct cases, transfer the bulk of oversight of misconduct from the scientific community to government, and fail to protect accused scientists adequately.

"We want to stress prevention," he said, "not punishment, by creating atmospheres on each campus that make it clear what kinds of things we respect and what kinds of things we don't respect. And that takes energy.

"If scientific research is beset with paperwork and regulation," Alberts concluded, "much of the joy and creativity in doing science could disappear. Such a cultural change would not only impede scientific process, it would also make our field much less attractive to the dedicated and talented young researchers who represent the future."

Cordova, who chairs an interagency task force of government scientists and administrators chartered last March to assure integrity in the research progress, said the task force's first goal is "to provide a common, federal definition of misconduct for research conducted by or sponsored by the federal government."

Established by the National Science and Technology Council's committee on fundamental science, Cordova's task force includes representatives from the U.S. departments of energy, agriculture and defense as well as the National Science Foundation, the Office of Science and Technology Policy and NIH. Instead of focusing on individual integrity among scientists, Cordova explained, the task force is concerned with science agency credibility and maintaining the public's trust in re-

search.

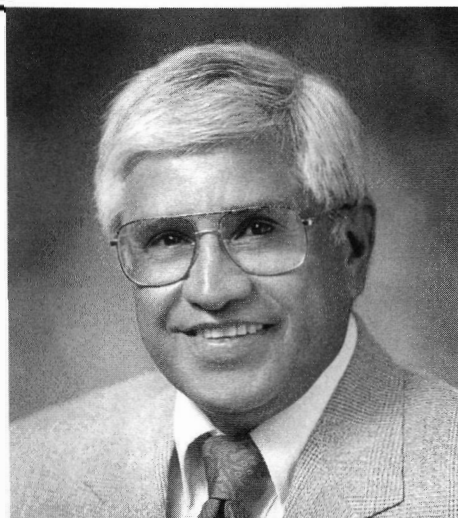
The ACD concluded its day-long session with a report on NIH's intramural science program, discussion of supplementary funding issues and an update on the agency's reinvention activities. □

Overweight Children Needed

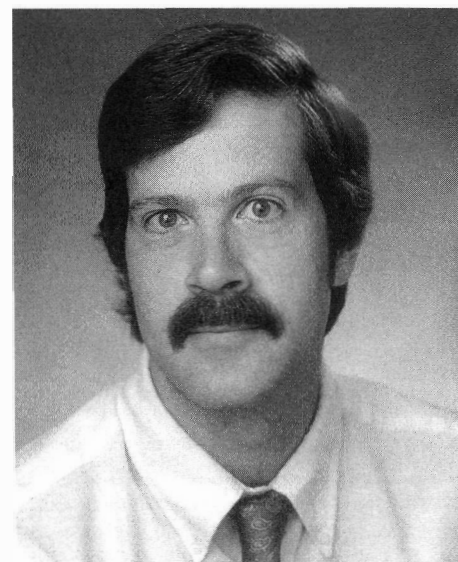
Healthy, overweight African American and Caucasian boys and girls, ages 6 to 10, are needed for an NICHD study investigating body composition and the causes of overweight. There will be two visits—one during the day, and one overnight. Participants receive a thorough evaluation for medical causes of overweight including a physical exam, blood tests, metabolism tests and x-rays. This is not a treatment study. Participants will be paid. Call 6-4168 for more information. □



Dr. Roselyn Payne Epps, a special expert in the Public Health Applications Branch of NCI's Division of Cancer Prevention and Control, has been selected to receive the sixth annual Achievement Award for Advocacy by the Society for the Advancement of Women's Health Research, a national organization founded in 1990 to promote women's health research and to increase the number of women in health research studies and health research positions. Epps came to NCI in 1989, lending her expertise to a variety of projects including NCI's American Stop Smoking Intervention Study, the Appalachia Initiative, and the establishment of a collaborative relationship with national medical organizations. She was selected for the achievement award because of her tireless dedication to advocacy for women's health issues.



Dr. Ernest D. Márquez, a microbiologist with extensive background in scientific review administration, has been appointed director of the NIGMS Minority Biomedical Research Support Program, which awards grants to institutions with significant minority enrollments to support research by faculty members, strengthen the institutions' biomedical research capabilities, and provide opportunities for students to work as part of a research team. He returns to NIGMS after 3 years with NINR, where he served as executive secretary of the National Advisory Council for Nursing Research and chief of the Office of Review. From 1990-1993, Márquez was a scientific review administrator at NIGMS with responsibility for managing the review of MBRS grant applications.

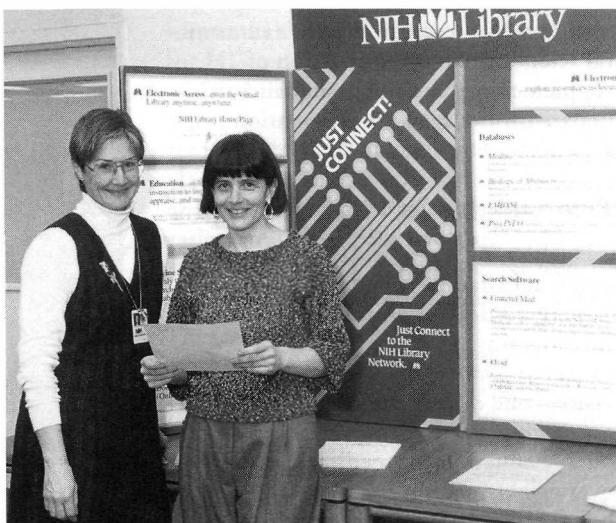


K.P. Murphy, DCRT personnel officer, recently received the Distinguished Senior Professional Award from the Montgomery County chapter of the International Personnel Management Association for his outstanding contributions and leadership in human resources management.

A Wealth of Information at the NIH Library

At the NIH Library, if it's information you want, then it's information you'll get! And you can get it in person, by phone, email, or Internet. At an open house held during National Library Week recently, the library staff gave visitors a glimpse of the latest information resources available, including Carl Uncover Reveal—a personalized email table of contents alerting service—Medline, Internet Grateful Med, Loansome Doc, and other online services. Highlights of the open house included tours, table-top exhibits, and door prizes. During the event there were 645 registrations for the information services offered by the library.

Similar to the mission of its parent organization, the National Center for Research Resources, the NIH Library provides biomedical research resources that support NIH research activities. These include information services, database searching, and translations. On average, the library fills 1,500 document



Susan Whitmore (l), chief, NIH Library Information and Education Services, and Candace Cupps, librarian

delivery requests each day. It also offers specialized computer training to help researchers and others find the information they need. Tutorials range from how to search biomedical databases to how to browse the the World Wide Web for other relevant sites.

To learn more about the NIH Library and its many services, call 6-1156 or access the library's home page at <http://libwww.ncrr.nih.gov>.

Researchers Find Second Fusion Cofactor for HIV

Researchers from two collaborating laboratories at NIAID have found that the strains of HIV most often transmitted from person-to-person require a cell surface molecule called CC CKR5, in addition to the primary receptor, the CD4 molecule, in order to fuse with the membranes of immune system cells. Fusion is an integral step in the process whereby HIV enters cells.

The current report, from the laboratories of Drs. Edward A. Berger and Philip M. Murphy, appeared in the June 28 *Science*. The paper complements a recent NIAID study that identified another fusion cofactor—fusin—used by other strains of HIV for entry into immune cells (see *Science*, May 10).

In their experiments, the investigators found that "macrophage-tropic" isolates of HIV-1 fused readily with cells that have both CD4 and CC CKR5 on their surfaces, whereas the same viral isolates failed to fuse with cells expressing only CD4. Macrophage-tropic isolates of HIV-1 preferentially infect macrophages in cell culture experiments. These isolates are the main strains found in patients during the symptom-free stage of HIV disease, which may last for many years.

Previously, Berger and his group demonstrated that fusin acts as a cofactor for the entry of T-cell line-tropic HIV-1 isolates into immune system cells; these strains tend to appear later in infected people, coincident with the decline of the immune system.

"Together with the recent identification by the Berger group of the receptor for T cell-tropic strains of HIV-1, the current identification of CC CKR5 as the receptor for macrophage-tropic strains of HIV adds considerably to our understanding of the mechanisms whereby HIV infects its target cells," commented Dr. Anthony S. Fauci, NIAID director. "This information should prove extremely useful in the delineation of pathogenesis of HIV infection and should serve as a basis for designing new therapeutic strategies."

The identification of two fusion cofactors suggests an immediate practical application: the production of a small animal model for study of HIV-1 infection. Such a model would be a potentially valuable tool for developing anti-HIV drugs and vaccines. □



Highlights of the open house included tours, table-top exhibits, and door prizes. More than 600 registered for the information services offered by the library.

NIH Farmers' Market Now Open Tuesdays on Lot 41B

The NIH Farmers' Market is now open on Tuesdays from 2 to 6 p.m. through Oct. 29. Located on the main campus in parking lot 41B near the tennis courts, the market offers a variety of homegrown and fresh-picked fruits and vegetables, fresh and dried flowers and herbs, house plants, organic produce, baked goods and homemade jellies and jams. □

OPRR Veterinarian John Miller Retires

By Carla Garnett

In the 10 years since veterinarian Dr. John G. Miller joined NIH's Office for Protection from Research Risks, his office has relocated a couple of times. Where his desk sat was never important, he said, because he made his most significant contributions to the office while sitting at the kitchen table of an OPRR colleague.

OPRR deputy director Miller will retire from NIH on July 15, after nearly 30 years of federal service. On Aug. 1, he'll officially begin his new career as executive director of the recently renamed Association for Assessment and Accreditation of Laboratory Animal Care, International (AAALAC International).

"Being a veterinarian in OPRR is the best job a lab animal veterinarian can have in federal government," he said recently, reflecting on his career. "No other office in the government has a greater ability to influence for good animal welfare in this country."

Having collaborated for several years with the Department of Agriculture to overhaul lab animal care and use standards worldwide—a large chunk of the work on which was done in one afternoon at a coworker's house in Rockville, away from his 200-phone call-per-day office—Miller is uniquely qualified to appraise career options for vets, both private practitioners and former military servicemen. Before coming to NIH, he spent more than 16 years as an officer in the Army's Veterinary Corps, where he carried out assignments in clinical veterinary medicine and surgery, veterinary pathology and lab animal medicine. During that time, he also spent off-duty hours moonlighting with a private-practice veterinarian.

"I can honestly say that the more interesting work I was doing then was not the sort of routine things we were handling in the vet practice," he recalled. "It was the work with the Army, where we were doing open heart surgeries and kidney transplants using animals."

While in the Vet Corps, Miller was also able to pursue his research interests in comparative pathology and reproductive endocrinology as part of a 3-year post-graduate stint he completed at the University of California, Davis.

Enjoying his 16th year as an Army officer recently assigned to the Uniformed Services University as director of laboratory animal resources, Miller



Dr. John G. Miller

received word in spring 1986 that he would soon be transferred from his area of expertise—research and research support using animals—at USUHS's Bethesda campus to a new and very different assignment: inspecting food in Panama. He immediately began the job search that would bring him to NIH in September 1986 as the senior veterinary officer in OPRR's Division of Compliance. His first assignment was a politically sensitive, diplomatically challenging headline grabber: Mesh USDA's laboratory animal regulations with DHHS policies, developing a universal set of federal standards for the treatment of research animals in the U.S.

In 1991, he won the NIH Director's Award for his efforts on that multi-year, interdepartmental project, which was done amid tremendous publicity at the height of the animal rights protest movement.

"In retrospect," he said, "the decision the Army made to send me to Panama turned out to be the best decision for my career, because I ended up here at NIH."

Although Miller was reared on a farm "with lots and lots of animals," he said he never considered pursuing a veterinary career when he was growing up as one of a family of five children in Walnut Creek, Holmes County, Ohio, home of the nation's largest Amish community. Miller's was one of the few non-Amish families in the area where farm work was accomplished with tractors and horse-drawn farm machinery basically side by side.

It was after his first semester at Malone College in Canton that studying and

caring for animals became something of a mission for him. He had dropped out of school to work for funds to continue his education. He took a job working in a lab in Cincinnati and happened to see an ad on television about an Ohio State College of Veterinary Medicine program seeking students to train as veterinarians. He called the contact and eventually joined the government-sponsored program that promised to pay enrollees—who became 2nd lieutenants via the training—a salary to complete the last year of veterinary school requirements in exchange for 3 years veterinary service to Uncle Sam in the armed forces.

Over the next 16 years, Miller earned his doctorate in veterinary medicine, was board-certified in lab animal medicine, completed postgrad work at UC-Davis, became a diplomate of the American College of Laboratory Animal Medicine and received 13 uniformed service awards.

Accustomed to being busy, Miller—who works with steeplechase racehorses in his spare time—said with his retirement from NIH and intention to report soon for his new AAALAC duties, he and his wife agreed that after this "first retirement," he would cut back to only one job. "I'm really excited about starting at AAALAC, which is responsible for accrediting over 600 organizations worldwide including member groups in Europe, South America, the Philippines and Egypt. One of the many pluses of this job is that there'll be the opportunity for travel to great places and my wife will be able to travel with me. In fact, my first assignment will be in Paris. So, I guess since I have to give up a job, there'll be no more steeplechase." □

Chamber Music Concert Set

The Rock Creek Chamber Players will perform on Sunday, July 14 at 3 p.m. in the 14th floor assembly hall, Clinical Center, Bldg. 10. This free public program, presented under the auspices of the CC recreation therapy section, will include Boccherini's Concerto in D Major for flute and strings; Martino's Serenata II for two violins and viola; and Brahms' String Quintet in G Major, Op. III. For more information, call (202) 337-8710.

NEI's David Scheim, Author and Musician, Retires

After 15 years as chief of NEI's Management Information Systems Branch, Dr. David Scheim has retired. He will remain on "inactive duty" as a commissioned officer.

Scheim joined NEI in 1981 as chief of the computer support branch. NEI has been a wonderful place to work and a "privileged life of technology," he says, because NEI management allowed him the opportunity to explore and work with state-of-the-art computer hardware and software. "Most of what I've done at NEI is database development," he says.

Scheim was one of the pioneers of client-server database technology at NIH. He designed and implemented several such extramural computing systems, and demonstrated client-server concepts and methodologies at various intercampus forums. He also was a member of the NIH Architectural Management Group.

A native of New York City, Scheim graduated from the University of Rochester in 1970 and began his service as a PHS Commissioned Corps officer when he started working at the NIH Division of Dentistry as a computer programmer. In 1973, he left the division to complete his graduate work at the Massachusetts Institute of Technology and postdoctoral work at the Los Alamos Scientific University in New Mexico. In 1978, he returned to Commissioned Corps duty at the dentistry division.

Computer technology is just one of his many areas of expertise. Scheim is also a very talented musician on both the piano and the harp, beginning his study of music at age 8. He most enjoys Jewish and Irish folk music, and he plays the piano on a recorded album, *Hills of Erin*. He regularly attends weekend and summer music camps and festivals to participate in instructional music seminars and to "jam" with other musicians. At Nanny O'Brien's pub, Scheim is considered a regular on Monday nights, where he plays his harp in informal sessions. Scheim performs at concerts and weddings, too, and particularly enjoys performing at fundraising events for Project Hope, a project that his congregation sponsors to help formerly homeless families in the metro area.

He is also a best-selling author. For 10 years, Scheim researched and wrote, *Contract on America: The Mafia Murder*



Carolyn Bealle jokes with her supervisor Dr. David Scheim at his recent retirement celebration. He leaves NEI after 15 years of service.

of President John F. Kennedy. The book sold half a million copies and stayed on the *New York Times*' bestseller list for 7 weeks. This highly publicized book, first published in 1983 and again in 1988, also was sold internationally. "It was a calling in my life at that time," says Scheim. He has appeared on several popular talk shows and radio programs to discuss his book.

Despite his writing success, Scheim recalls that, in grade school, he once asked a teacher how to earn a Ph.D. The teacher replied, "You write a book." This filled him with trepidation, and he decided to do anything to avoid this. "I always hated writing," he says, and claims that he does to this day.

He is very modest about his accomplishments, states Carolyn Bealle about her supervisor of 15 years. "He would read a manual and then design a prototype system," she says. "It was a challenge to work with someone who thrived on cutting edge technology, and, it was rewarding to be a part of the process where new methodologies were put into production to serve the information needs of the NEI."

When asked about his plans for retirement, Scheim says, "I'll give you a very definitive answer: I don't know." He does know that he will travel for 2 months, play music, and visit his mother and brother in Los Alamos. Scheim isn't slowing down yet. Another potential adventure has aroused his curiosity. "I am very interested in living in a land-based community, but so far it has only been vaporware," he says. □

The NIH Life Sciences Education Connection

A student in a Montgomery County high school is sequencing DNA. An elementary teacher in St. Louis is helping students learn about vision using an NEI curriculum supplement. And a student in Tuskegee is reading on the World Wide Web about summer internships at NIH. From local partnerships to web sites to curriculum supplements, NIH efforts in science education reach a diverse audience both locally and across the country.

While the Office of Science Education (OSE) sponsors several outreach programs such as the Mini-Med School, Science Alliance, the Speakers Bureau, and Science in the Cinema, many other groups participate in science education at NIH. Just what are the education activities at NIH, who is sponsoring them, and how can they all come together to form a coordinated effort? These questions and others were discussed June 4 at the OSE-led Science Education Resource Group meeting.

The resource group, composed of about a dozen NIH'ers representing ICD programs in science education, seeks to create a unified voice in educational outreach. The group plans to compile a directory of NIH science education activities, which will be disseminated, among other ways, via the OSE home page. OSE has also created a listserv on the Internet so that participants can communicate easily and share ideas. In addition, the resource group is exploring ways to present what NIH is doing in science education to national audiences.

The Science Education Resource Group will continue to meet quarterly and intermittently if the need arises. If you are involved in science education and would like to participate in the group, or if you know about a program that should be included in the resource directory, contact Dr. Paula Gregory, edcore@nchgr.nih.gov, or Cassandra Isom, isomc@od6100m1.od.nih.gov. Both can be reached at OSE, 2-2469.

Healthy Smokers Needed

NIAAA is seeking healthy smokers to participate in various research studies. Each participant must be at least 18 years old. For more information, call Dr. John Umhau, 6-7515. □

NEI's Roy Milton Retires After 27 Years of Federal Service

Roy Milton, chief of the Biometry Branch and deputy director of the Division of Biometry and Epidemiology, NEI, has retired after 27 years of government service.

He joined the Office of Biometry and Epidemiology 24 years ago, at NEI's inception, and was instrumental in promoting the use of biostatistical and epidemiologic methods and principles in the growing field of vision research.

In 1975, Milton served as project officer for the Framingham Eye Study, the first of three collaborative studies spanning more than 20 years of research, in conjunction with NHLBI's Framingham Heart Study. The Framingham Eye Study has been cited internationally as a model for epidemiologic vision research.

The following year, Milton became involved in studies, by NEI and international investigators, of the role of risk factors associated with adult cataract and xerophthalmia, an eye disease found in vitamin A-deficient children. One of the projects, a population survey conducted in India, was the first modern epidemiologic study to link cataract with



Roy Milton

poor nutrition. Later, this work was expanded in the first case-control study of cataract.

Another of the projects demonstrated that giving preschool children in southern India small weekly doses of vitamin A reduced mortality by 50 percent within 1 year and prevented xerophthalmia.

Milton and Chinese investigators

reported results of the first clinical trials of a nutritional-supplement intervention for cataract. The investigators found that certain vitamins and multivitamin supplements reduced the prevalence of cataract in the Chinese population.

Prior to his career at NEI, Milton served on the Atomic Bomb Casualty Commission, which studied the after-effects of exposure to radiation from the atomic bombings in Japan. During that time, he also organized the first international conference on statistical computing at the University of Wisconsin.

When asked about his plans for retirement, he replied, "My wife and I plan to continue our foreign travels. However, I'm not quite ready to retire full time." He has joined EMMES Corp., an organization that provides statistical and operational support for biomedical research.

"NIH provides many opportunities for statisticians in research...I still have a few unused chi-squares, both large and small; call if you need some," Milton quipped.—Linda Huss □

CC Physician Alan Van Dervort Slain

Dr. Alan Van Dervort, former medical staff fellow in the Clinical Center critical care medicine department, was shot in a Gaithersburg parking lot on May 24 and died the following day at Shady Grove Hospital.

A member of NHLBI's pulmonary critical care medicine branch since 1994, Van Dervort came to NIH in 1987. He studied communication systems employed by cells, research relevant to pulmonary disease in critically ill patients. NHLBI officials described him as "an excellent physician, well-liked by his coworkers."

Van Dervort grew up in the Los Angeles area and trained in internal medicine at King's County Hospital/Downstate Medical Center in Brooklyn and later completed a fellowship in critical care medicine at Memorial Sloan Kettering Cancer Hospital in New York City.

During his time at NIH, he developed a reputation as an able, caring, and skilled clinician. His outstanding clinical instincts were appreciated by all those who worked with him. He loved

discussing cases, always looking for a better way to do a procedure or solve a problem. He was board certified in internal medicine and critical care medicine.

Van Dervort's CC research focused on developing new therapeutic approaches to treating septic shock. He was among the first to recognize that certain analogs of lipid A, the toxic moiety of endotoxin, could antagonize inflammatory effects of endotoxin and perhaps serve as a new class of agents for treating septic shock. He described lipid A analogs with agonist, antagonist, and mixed agonist-antagonist activity, defining the structure-function relationships of these molecules. This work was part of the foundation that led to the development of an endotoxin antagonist that has entered clinical trials.

Van Dervort made contributions to our understanding of neutrophil priming, an effect that enhances cytotoxic responses and may contribute to tissue injury in sepsis. More recently, he studied the role of nitric oxide in regulating inflammation.

At NHLBI, Van Dervort was investigating cGMP-independent nitric oxide signaling pathways involving tyrosine nitrosylation.

Most of all, his colleagues will remember him for his friendship and his sense of humor. "Big Al," or just "Al," loved basketball, tennis, and life. He frequently played basketball on the 14th floor courts of the CC and was known as a tough but gracious competitor.

He attended Washington Bullets basketball summer camp for amateurs and as a season ticket holder frequently went to Bullets home games with friends and colleagues.

He spent weekends playing tennis with his daughter, Alana, or taking her to tennis tournaments.

He is survived by his wife, Annette, his daughter and his mother, Caprice.

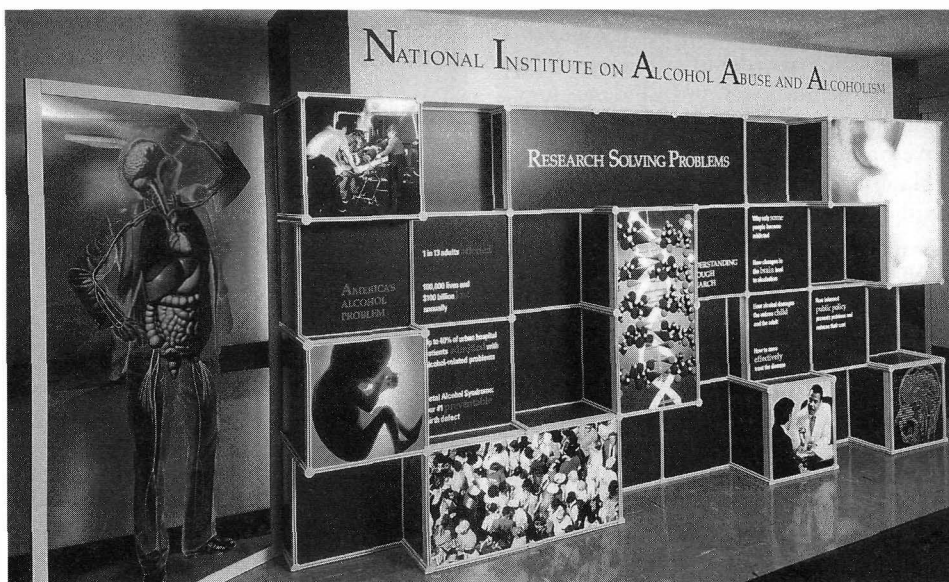
Memorial contributions may be sent to the Alana Van Dervort Scholarship Fund, c/o Dr. Joel Moss, Bldg. 10, Rm. 6D03, MSC 1590, 10 Center Drive, Bethesda, MD 20892-1590.—Dr. Robert Danner

NIAAA Displays New Exhibit, 'Research Solving Problems'

The National Institute on Alcohol Abuse and Alcoholism recently debuted its new exhibit in the main lobby of Bldg. 31. Titled "Research Solving Problems," the exhibit highlights 25 years of progress in the field of alcohol research and culminates a year-long celebration of NIAAA's 25th anniversary.

The exhibit spotlights the many areas of research initiated and supported by NIAAA. "The goal is to depict the magnitude of the problem as well as to clearly cover the scope of the science," said Dr. Enoch Gordis, NIAAA director. This research encompasses both the medical and social aspects of alcohol abuse and alcoholism.

Full-color photographs and text draw attention to the high price that alcohol exacts on society—in injury, loss of life, and economic costs. A crowd scene represents how widespread alcohol abuse and alcoholism are in the United States, a photograph of a developing fetus depicts the effects of alcohol on the unborn child, and illustrations of high-tech imaging techniques and the DNA molecule show how cutting-edge technology in neuroscience and genetics is helping to identify those people who run the greatest risk of developing alcoholism. Other panels on the exhibit illustrate how advances in alcohol research are helping scientists develop



NIAAA's new exhibit is currently on display in the B-wing lobby of Bldg. 31.

new techniques and medications to aid in the prevention and treatment of alcoholism.

Also, a full-sized icon that stands alongside the exhibit clearly shows how much of the body is affected by alcohol use. Viewers can see at a glance the far-reaching effects of alcohol on health.

In addition to helping people understand the range of alcohol research in progress today, NIAAA's new exhibit emphasizes the importance of ongoing education about alcohol. This exhibit

and NIAAA publications such as *Alcohol Alert* and *Alcohol Health & Research World*, play an important role in helping to erase the stigma associated with alcoholism. By fostering an understanding about this complex disease, NIAAA is better able to support those working in the field and those suffering from problems related to alcohol abuse.

For more information on NIAAA's research and educational activities, contact the institute on the World Wide Web at <http://www.niaaa.nih.gov>. □



The Washington Capitals hockey team opened its hearts and wallets to benefit the NIH Marrow Donor Center when it sponsored a special marrow drive recently at Bethesda's Walter Johnson High School. On hand at the event were (from l) Jim Schoenfeld, Caps head coach; Tod Button, assistant coach; and Dr. Susan Leitman, chief of the department of transfusion medicine's blood services section and medical director, NIH Marrow Donor Center. Button's father, a scout for the team, was stricken with leukemia last spring and was successfully matched with his sister for a marrow donation. "I know I speak for my dad, my family, and all those people who care for him when I talk about the importance of the bone marrow drive and the bone marrow program," said Button.

DCRT Wants Your Input

Are you curious about search engines? Do you want to know about a new World Wide Web technology such as RealAudio or VRML (Virtual Reality Modeling Language)? Are you providing information via the Web and in need of more tools? DCRT is sponsoring an Internet Information Day, with an emphasis on Internet tools, for early 1997 and welcomes your ideas in planning the program. What do you need to know about the Web and related technologies? If you have a Web browser, share your ideas by filling out a short survey at <http://dowland.dcrf.nih.gov/iid/survey.html>. You can also call in your ideas to 4-DCRT or e-mail them to 4DCRT@nih.gov.