

THE NIH RECORD

Still The Second Best Thing About Payday

Inaugural Barmes Lecture

Ethicist Caplan To Give Talk on Global Health, Oct. 22

NIDCR and the Fogarty International Center will co-host the inaugural David E. Barmes Global Health Lecture on Monday, Oct. 22 at 3:30 p.m. in the Natcher Auditorium. The lecture honors Barmes, a special expert in international health in the NIDCR Office

of International Health, who died on Jan. 13, 2001. The guest speaker is Dr. Arthur Caplan, trustee professor and director of the Center for Bioethics at the University of Pennsylvania. He will speak about "Ethical Issues on



Dr. Arthur Caplan

the Biomedical Frontier," and will explore such topics as cloning, stem cell research and new reproductive technologies.

SEE ETHICIST CAPLAN, PAGE 2

'Trick or Treat' with the CFC

All NIH'ers are invited to "trick or treat" with the Combined Federal Campaign on Wednesday, Oct. 31, from 11:30 a.m. until 1:30 p.m. on the Bldg. 31 patio. The treats? A chili lunch, provided at nominal charge by the Hard Times Cafe, lots of door prizes, including tickets to see Michael Jordan play basketball with the Wizards at the MCI Center, and, of course, candy! The trick? Deciding which of the over 15 charities to visit. Various local and national CFC charities will be on hand to distribute information and answer questions. For details, contact Sue Thompson at 594-4469 or see the NIH CFC web site at <http://www1.od.nih.gov/ohrm/cfc/>.

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Aged Pioneer To Retire—Gradually

New Clinical Research Information System Planned to Replace MIS

By Carla Garnett

In 1975, having a TV-like device that sat on the desktop and offered immediate access to hundreds of thousands of pages of patient records seemed like only a dream for the nurses, physicians, pharmacists and dozens of other professionals charged with patient care at the Clinical Center. But MIS—the computerized medical information system that made its NIH debut that year—turned the dream into a reality. Designed to collect, transmit and store information about patients, MIS was a pioneering system few other hospitals could boast having at the time. Now, however, with a PC atop every other surface one encounters, MIS—which has grown a lot, but changed only a little—seems to many users antiquated and limiting.

"The perception is that we're way behind the curve," said Dr. Stephen Rosenfeld, chief of the Clinical Center's department of clinical research informatics and head of the group that is in search of a clinical research information system (CRIS), a modernized, more flexible cousin of MIS. "It's important for people to

SEE CRIS VS. MIS, PAGE 8

NIH Rowers Train Together, Oppose One Another

By Rich McManus

Three mornings during the workweek, at the ungodly hour of 5:30, two NIH scientists rendezvous at a dock in Georgetown and push off for more than 10 miles of self-imposed punishment pitting leg, back and arm muscles against the tides on the Potomac River. They do this year-round (plus weekends), except on rare occasions when the river freezes solid. And on mornings when the river forbids them—as it did during the recent terrorist crisis, which closed portions of the river for security reasons—they meet in a basement to train on ergometers, which are rowing machines without the fresh air, sensation of motion or contemplation of dawn associated with the substantial suffering that is rowing. They do this because they want to get better, they want to win, and they want to beat one



Rower Dr. Chuck Selden

SEE NIH ROWERS, PAGE 4



Dr. Francisco O. Calvo has been appointed chief of the Review Branch, NIDDK, where he has served as deputy chief since 1999. From 1987 to 1990, he directed the Endocrinology Research Program and was project officer for the National Hormone and Pituitary Program, NIDDK. He later became a scientific review administrator in the Review Branch and chief of the special emphasis panel review section. Calvo has been a member of the review policy committee, the STEP committee and the Hispanic task force. He worked as a research associate and instructor at the Mayo Clinic and Foundation before joining NIH in 1987. He remains active in the Endocrine Society, the Society for the Study of Reproduction, Sigma Xi, and the Society for Research Administrators. He was recently appointed to the editorial board of *Biological Reproduction*.

ETHICIST CAPLAN, CONTINUED FROM PAGE 1

Caplan is an internationally known bioethicist whose work has focused on medical ethics and ethics in science and biotechnology. In addition to his position at the Bioethics Center, he is also a professor in the department of philosophy and the department of psychiatry in the university's school of medicine.

Caplan is the author or editor of more than 20 books and over 500 papers in journals of medicine, science, philosophy, bioethics and health policy. His latest books include *Ethics and Organ Transplants* and *Am I My Brother's Keeper?* He is a frequent commentator in the media on the topic of bioethics and writes a regular column for MSNBC.com.

He has served on a number of national and international committees, including the DHHS advisory committee on blood safety and availability, which he currently chairs. He has also served on the presidential advisory committee on Gulf War veterans' illnesses, a special advisory committee to the international Olympic committee on genetics and gene therapy, and the special advisory panel of the National Institute of Mental Health on human experimentation on vulnerable subjects.

A native of Boston, Caplan received a B.A. from Brandeis University and did his graduate work at Columbia University where he received an M.A., M.Phil. and Ph.D.

Prior to joining Penn in 1994, he taught at the University of Minnesota, the University of Pittsburgh and Columbia University. From 1984 to 1987, he was associate director of the Hastings Center, an independent research organization that addresses ethical issues in health and medicine.

He holds six honorary degrees from colleges and medical schools. He is a fellow of the Hastings Center, the New York Academy of Medicine, the College of Physicians of Philadelphia and the American Association for the Advancement of Sciences. He won the McGovern Medal from the American Medical Writers Association in 1998.

All NIH'ers are invited to attend the lecture and the reception for the speaker afterward. ■

Research Society Honors NIAAA's Calhoun

Dr. Faye Calhoun, NIAAA's associate director for collaborative research activities, received the 14th annual Seixas Award at the Research Society on Alcoholism's (RSA) meeting in Montreal, Canada. The award is given to an individual who has made extraordinary contributions to the advancement of alcohol research. In announcing the award, RSA President Yeddy Israel cited Calhoun's leadership in developing and overseeing numerous national and international partnerships and collaborative research efforts; and in interagency efforts to bring diverse resources to alcohol research. ■

2001 Flu Vaccine Program Delayed

Again this year, delivery of influenza vaccine has been delayed, with complete vaccine delivery not expected until sometime in November. As of now, a small supply of influenza vaccine has been delivered, and, as always, Clinical Center patients and staff caring for them will be the first to receive immunization. A schedule for the "Foil the Flu" vaccination clinics for the general NIH population has, at press time, not been established. As soon as NIH receives sufficient vaccine, a schedule will be developed and will be publicized to the NIH community. A web site has been established that has information about flu and will have the schedule as soon as it's available. The address is <http://www.nih.gov/od/ors/ds/flu/>.

In the United States, flu season peaks between late December and early March. Vaccination is the best way to minimize serious adverse outcomes from influenza virus infection.

For more information about flu, visit <http://www.cdc.gov/nip/Flu/default.htm>.

NIH'ers also can contact their personal physician or local health department to identify locations offering flu immunization programs. ■

APAO Elects New Officers

The NIH Asian Pacific Islander American Organization recently elected new officers for the year 2001-2002. They are: Prahlad Mathur, president; Sunnie Kim, vice president; Lydia Luh, treasurer; and Ihsia Hu, acting secretary. For more information about APAO, visit www.recgov.org/r&w/apao. ■

N I H R E C O R D

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NIH Record Office
Bldg. 31, Rm. 5B41

Phone 496-2125
Fax 402-1485

Web address
<http://www.nih.gov/news/NIH-Record/archives.htm>

Editor
Richard McManus
rm26q@nih.gov

Assistant Editor
Carla Garnett
cg9s@nih.gov

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Genetic Risks Shape Cancer Prevention Options

By Jennifer Michalowski

Speaking recently at the second annual Advances in Cancer Prevention Lecture, Dr. Frederick P. Li addressed the topic of identifying and caring for high-risk individuals. His focus was the impact of genetics on cancer risk.

"There is a lengthy chain of events that has to precede any successful intervention," said Li, vice chair for population sciences in the department of adult oncology at the Dana Farber/Harvard Cancer Center, professor of clinical cancer epidemiology at Harvard School of Public Health, and professor of medicine at Harvard Medical School.

The first essential step leading to intervention, he said, is an understanding of the causes of disease. He emphasized that while recent discoveries have helped in the identification of persons at high risk, determinants of which individuals will develop cancer often remain unknown.

"Cancer is a complex topic, and it's going to get more complex," he said.

Comparing the potency of hereditary and environmental risk factors for cancer, Li made clear the hazards of some cancer susceptibility genes. Those born with defects in genes associated with colon cancer or retinoblastoma (a childhood eye cancer) have a 90 percent chance of developing cancer in their lifetime. In comparison, environmental factors such as prenatal exposure to the carcinogen DES or exposure to 1 gray of radiation translates into a risk of only 0.1 percent each year.

Li told of his own studies of Li-Fraumeni syndrome, which played a key role in the understanding of the risk associated with such genes. In 1969, Li documented cancer cases in four families. These families had an unusually high incidence of six types of cancer: soft tissue sarcoma, breast cancer, osteosarcoma, brain tumor, acute lymphocytic leukemia, and adrenocortical carcinoma. Many of the family members developed cancers at a young age.

Li and his colleague Dr. Joseph Fraumeni (now chief of NCI's Division of Cancer Epidemiology and Genetics) published a paper in the *Annals of Internal Medicine* proposing a hereditary component of these cancers, and immediately began to receive calls about similar cases across the country. Eventually, they identified 24 cancer-prone families that fit the description of Li-Fraumeni syndrome. Li also began to hear from the patients in his original report, who called to tell him that additional cancers had been diagnosed in their families.

"By this time it was very obvious that the cancer occurrences were not due to bad luck," Li said. "There was something terrible going on." Further evidence of an alarming phenomenon came when Li followed patients who survived their primary cancers

and learned that those individuals had an extraordinary propensity to develop second and third cancers.

Convinced that there was a hereditary component to these families' cancers, the researchers' next step was to search for the responsible gene. In the face of a seemingly endless pool of cancer-related genes, the task appeared overwhelming. However, when the search was narrowed down to genes involved with all of the six cancers, the p53 tumor suppressor stood out.

Investigation of patients with Li-Fraumeni syndrome revealed that they had been born with a mutated copy of the gene.

Many years of further studies yielded even more surprises. The most recent of these, Li said, was the finding that inherited mutations in the p53 gene appear to predispose individuals to an even wider range of cancers than previously thought. Although the frequencies of these additional cancers—lung, stomach, colorectal, lymph and ovarian—are not necessarily higher in Li-Fraumeni patients than in the general population, those born with p53 mutations developed these cancers at an unusually young age.

How can knowledge of heritable susceptibility affect patient care? Li is studying how genetic testing influences patients' health care decisions. In a study following women who have been tested by their local physician for inherited mutations in the genes BRCA1 and BRCA2, which increase breast and ovarian cancer risk, Li has found that 90 percent of the participants are satisfied with their decision to undergo testing. After learning the results of their tests, more than half of the women said they were considering prophylactic surgery, and a similar number were considering chemoprevention.

Prophylactic surgery, chemoprevention, and targeted screening are all interventions that can be employed once individuals have been identified as having a high risk, but Li cautioned that these strategies are not appropriate for every cancer. "The opportunities for intervention vary considerably with the gene involved," he said. For example, surgery and chemoprevention are possibilities for those at risk of breast or colon cancer, whereas heightened surveillance is currently the best option for those at risk of kidney cancer. For those with p53 mutations, Li said, even surveillance is difficult, as the increased cancer risk pertains to many organs.

Li concluded his talk by noting the last century's successes in disease control. Defeat of polio, rubella, and malaria in the U.S. and other developed nations, he asserted, could all be attributed to successful prevention campaigns. ■



Dr. Frederick Li (r), who gave the second annual Advances in Cancer Prevention Lecture recently, accepts plaque from NCI's Dr. Douglas Weed.

NIH ROWERS. CONTINUED FROM PAGE 1

another in the worst way. Welcome to "oar-agon," the sweat-spattered friendship of NIDDK's Dr. Adriaan Bax and Dr. Chuck Selden, NIH extramural staff training officer.

"Mentally, it is very hard to exercise by yourself," says Bax, an NMR spectroscopist in the Laboratory of Chemical Physics. "Having someone else suffering just as bad is an uplifting experience, I guess. Especially ergometer rowing—that's very rough on you. It requires much more self-discipline than rowing on water, which is a lot more fun."

Next weekend, at the annual Head of the Charles Regatta in Boston, each man will draw on many dawns of brutal exercise to defeat the other in a 3-mile race. At a tune-up for that event—the Head of the Potomac Regatta on Sept. 22—Bax beat Selden

in single sculls by 40 seconds (17:27 vs. 18:07) over 2.8 miles. On the Charles River, Bax and rowing partner Marc Gwadz of NCI will sit in one double-scull, and Selden and his cross-country partner John Younger of San Rafael,

Calif., will man the other. "Our boats will be within seconds of each other," predicted Selden. Ironically, both Bax' and Selden's double-scull partners are Notre Dame alumni.

But rowing is that kind of sport; its adherents tend to have started young, in rowing meccas, and know one another from the handful of elite international competitions and old-line boat clubs. Selden, for example, grew up on Puget Sound and "rowed dinghies on the Tacoma Narrows since I was 6 years old." He rowed competitively at the University of Washington in Seattle. "It's a varsity sport at UW, and has been taken extremely seriously there since the 1890's. For many years, rowing and football were the two main sports." He rowed eights, fours and pairs for the Huskies, then rowed only sporadically, preferring running, before commencing postdoctoral studies at Johns Hopkins in 1980. He became a cofounder of the Baltimore Rowing Club, and gradually returned seriously to the sport, trying out in 1983 and 1984 for the national lightweight team; he was the last oarsman not selected both

years. In 1984, the year he began competing against Bax, Selden joined Vesper, a famous Philadelphia rowing club whose members had won the Olympic gold medal in 1964. "I call that my graduate education in rowing because I learned an awful lot," he said. When he arrived at NIH (in NHLBI's Division of Lung Diseases) in August 1992, Selden soon joined "Ad's club—the Potomac Boat Club."

Bax, who grew up in The Netherlands, came comparatively late to rowing, joining his university's rowing club as a single-sculler in 1971 at age 17; he had been a bike racer and speed skater prior to that. "I had semi-supported myself as a student by competing in bike races," he said. "The prize money is quite substantial back in Europe," anywhere from \$10 to \$100 per event. "A couple of hundred guilders then is at least (equal to) a couple hundred dollars now," he noted. "It was more than the student fellowship I got, that's for sure."

He admits, "I did pretty well rowing in college; I rowed with the Dutch national team from 1975 to 1977." He worked out on the water up to twice a day in graduate school; "Instead of going to the bar, I went to the boat club," he recalls. "I don't like to sit around and just do nothing." One year after joining NIH in 1983, he began rowing seriously again and joined the Potomac Boat Club. He had been biking until then, but "cycling is not quite optimal around here—too much traffic and drivers tend to be inconsiderate. I've broken some bones. I figured rowing was probably safer."

Selden says rowing is enjoying a national resurgence, and both men say the Potomac is filling up with boats, though not on a par with Philadelphia's Schuylkill or Boston's Charles river. "There are three times as many rowers now as there were 15 years ago," said Selden. "It's not just an Ivy League sport anymore. There are probably more than 50 boats on the Potomac on any given morning."

The sport is financially, as well as physically, demanding. "Single sculls cost anywhere from \$4,000 to \$7,000," Selden said, and can be made of space-age materials or wood. "Ad's boat is made of Kevlar and carbon fiber," he said, "and mine is mahogany and birch plywood." The men rendezvous on the dock at Georgetown around 5:30 a.m., which in the winter is hours before dawn. "In winter, the sun rises after we get back from our workouts (at 7 a.m.)," said Selden. "Only the serious and the crazy show up in winter. It's quite an experience to be going backwards fast in the dark—I've run into my share of things on the river." The rowers wear Neoprene wet suits in winter in case of involuntary spills; both say the Potomac is cleaner now than in the 1980's, but still not pristine.

Depending on how many of their cadre of seven committed rowers show up, they practice either in single-, double- or quadruple-sculls. The workout route is established: down to the radar towers at National Airport and back, a distance of 10 miles.



Sure, they're smiling here, but NIDDK's Dr. Adriaan Bax (l) and OD's Dr. Chuck Selden are fierce competitors. "Sometimes we're teammates, sometimes we're competitors," says Selden, "but we're training partners year-round."

Calif., will man the other. "Our boats will be within seconds of each other," predicted Selden. Ironically, both Bax' and Selden's double-scull partners are Notre Dame alumni. But rowing is that kind of sport; its adherents tend to have started young, in rowing meccas, and know one another from the handful of elite international competitions and old-line boat clubs. Selden, for example, grew up on Puget Sound and "rowed dinghies on the Tacoma Narrows since I was 6 years old." He rowed competitively at the University of Washington in Seattle. "It's a varsity sport at UW, and has been taken extremely seriously there since the 1890's. For many years, rowing and football were the two main sports." He rowed eights, fours and pairs for the Huskies, then rowed only sporadically, preferring running, before commencing postdoctoral studies at Johns Hopkins in 1980. He became a cofounder of the Baltimore Rowing Club, and gradually returned seriously to the sport, trying out in 1983 and 1984 for the national lightweight team; he was the last oarsman not selected both

years. In 1984, the year he began competing against Bax, Selden joined Vesper, a famous Philadelphia rowing club whose members had won the Olympic gold

"If we're in singles, we really beat each other up," said Selden. "We're mostly self-coached, but a couple of times a year a national team coach will show up and evaluate us. All of us have been rowing for 30 years or more, and most have been on national or Olympic teams."

The first mile and a half of each morning's workout is relatively easy as the rowers gradually gain stroke length and power, "then we go all out," said Selden. Bax is the only one who warms up onshore, using a boat club ergometer before launching on the river. Though each is capable of beating the other, Selden admits, "Ad is usually a little faster than me."

Neither man is the rower he once was: "I'm starting to go a little slower," said Selden, who is 4 years older than Bax, 45. "But I did my best erg machine workout in 10 years last week."

Bax is typically scientific in his self-evaluation: "I'm definitely on the way down," he laughs.

"Every year I lose a few seconds. There's very little ripple on the sine bell curve, and there's very little you can do to change that. I can go below the curve, but not above it."

On days when Bax doesn't row, he runs at lunchtime with his postdocs in Rock Creek Park. "It can be pretty intense with those young guys," he laments. "There's nothing they like more than beating their boss."

Both men say they are going to row until someone peels their hands from the oars. "I'll do it as long as I can," said Bax. "It makes you feel good. I get grumpy if I miss my workouts for a few days. It's a problem when I travel." Selden says simply, "I'll do it until I'm unable."

Until that day, there will be miles of river under their seats, and the excitement of going backwards—sometimes in the dark—toward a harder, but healthier and happier, future. ■

Donations Enhance NIH Museum of Medical Research

Two recent donations to the Stetten Museum of Medical Research gave the museum some of its oldest objects and document the career of colorful early NIH scientist Dr. Claude S. Hudson. Dating from 1919 to the 1950's, a collection of Hudson's manometers (with lead shot or mercury) and two urino pycnometers illustrate most of Hudson's career.

Dr. Cyrus Creveling, scientist emeritus in the Laboratory of Bio-Organic Chemistry, NIDDK, rescued the manometers, and a piece of history, from the trash. An AO Spencer polarizing microscope reflects Hudson's later career as chief of what is now the carbohydrate section, Laboratory of Medicinal Chemistry, NIDDK. R. Theodore Fletcher, senior research assistant, NEI, donated the microscope, which was also used by his father Dr. Hewitt G. Fletcher and Dr. Nelson Richtmeyer. Fletcher succeeded Hudson as chief of the carbohydrate section and Richtmeyer was a senior investigator in the section.

Claude Silbert Hudson (1881-1952) is considered a father of carbohydrate chemistry. He established a series of rules known as "Hudson's rules" having to do with the optical rotation of sugars. A Southerner, he trained to be a minister until he discovered chemistry was his calling. He studied at Princeton and in Germany, receiving his doctorate in physics. At the start of his career, he used urine analyses to test food preservatives for the Bureau of Chemistry. During World War I, he joined the "poison squad studies" and discovered how to activate charcoal to absorb poisonous gas. After WWI, he became a commercial consulting chemist and secured patents for activated charcoal, confectionary glaze and

isopropyl alcohol. He worked at the National Bureau of Standards (1923-1928), until he came to NIH (then the Hygienic Laboratory of the Public Health Service), where he stayed until retiring in 1951.

Hudson was known for concentrated work in the laboratory, mentoring the "undergraduates of Hudson's University" as Richtmeyer put it, and telling good stories. One story told about Hudson

by a senior NIH scientist recalls how Hudson took one of his doctoral candidates out on the town before the student's oral boards. The next day, facing the Georgetown exam board with a hangover, the student was asked, "Can you tell us what Hudson's Rules are?" The student answered,

"Hudson's first rule says that any drink with gin in it is a good drink." "That's my boy!" roared Hudson from the back of the room.

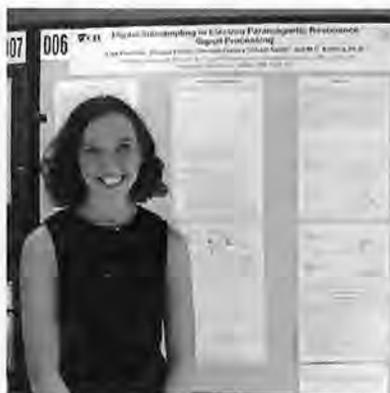
If you have any more information about Hudson, Fletcher or Richtmeyer, or an instrument or photographs to donate, call the Stetten Museum curator, 496-7695.—Michele Lyons ■



Dr. Claude Silbert Hudson pores over papers in his lab.

Summer Student Is Competition Finalist

Lisa Ruhleow, a junior from the University of Wisconsin, is no stranger to winning awards. Before coming to NIH as one of the finalists in this year's Biomedical Engineering Summer Internship Program (BESIP), she received scholarships from the Aide Association of Lutherans and a bioengineering department award from her university. "Competition was high for one of the 16 internship positions," explained BESIP chairman Dr. Robert J. Lutz. He said more than 90 students from 33 universities and colleges across the country competed for a place in this year's program.



College student Lisa Ruhleow shows off her summer's work at the annual Poster Day event.

Ruhleow arrived in Maryland in June and began her internship at the Center for Information Technology working for Tom Pohida, a biomedical engineer with the Division of Computational Bioscience. Her project was titled, "The Use of Digital Subsampling in Electron Paramagnetic Resonance (EPR) Signal Processing." As she explained, "Subsampling is a digital technique that converts a high frequency signal to a lower frequency range, making the signal simpler to process and analyze." According to Pohida, "We were not able to dedicate the time for the project until Lisa arrived...her accomplishments will enable us to significantly improve the EPR small animal imaging system in the near future."

Ruhleow was the only summer student to represent CIT at this year's annual Summer Student Poster Day, an all-day event on Aug. 9 at the Clinical Center exhibit area. Sponsored by the NIH Office of Education, this year's event featured more than 400 posters displaying the science projects of the many summer science interns, including students from high schools, colleges, universities and medical schools from across the country.

Growing up in the small town of Oconomowoc, Wisc., Ruhleow says she always felt an affinity for the sciences. "Even in grade school I found that science and information technology were something that really interested me, and that I was good at," she said. She hopes to return to CIT or NIH in the future not only as a summer intern, but also perhaps, after she graduates, as "a full-time biomedical engineer." ■

Healthy Families Needed

NIAAA is seeking healthy parents and their adolescent children, ages 12-17, to participate in a study involving an interview and a brain scan. No medication is involved. Compensation is provided. Call 594-9950 for information. ■

Rabson Named Acting NCI Director

HHS Secretary Tommy Thompson on Oct. 1 named Dr. Alan S. Rabson as the acting NCI director, following the resignation of Dr. Richard Klausner as NCI director effective Sept. 28. Rabson, who had been NCI's deputy director, will be acting director until a new director is named.

Rabson came to NIH in 1955 as a resident in pathologic anatomy. In 1975, he was named director of NCI's Division of Cancer Biology, Diagnosis, and Centers, where he served until his appointment as the institute's deputy director in 1995. He holds clinical professorships in pathology at Georgetown University Medical Center and George Washington University, and at the Uniformed Services University of the Health Sciences. In 1987, Rabson became a member of the Institute of Medicine.

Baltes To Lecture on Life Course

Dr. Paul B. Baltes, director of the Max Planck Institute for Human Development in Berlin, will present "Biocultural Dynamics of the Life Course: Difficult Journey from the Third to Fourth Age?" on Monday, Oct. 22 at 9 a.m. in Wilson Hall, Bldg. 1. This lecture had been scheduled previously for Sept. 14. It is the first in a 5-part NIH Behavioral and Social Sciences Lecture Series honoring Dr. Matilda White Riley, considered by many to be a prime force in creating NIH behavioral and social science programs. The National Institute on Aging will host a reception following the lecture. ■

Open Season for FAES Insurance

The FAES Health Insurance Program is holding an open season Nov. 1-30. The program is open to those who work for or at NIH in full-time positions but are not eligible for government plans. This includes NIH fellows, special volunteers, guest researchers, contractors and full-time temporary personnel. The minimum enrollment period is 3 months. Benefits take effect Jan. 1, 2002.

Open season is for those who did not enroll when first eligible and for current subscribers to make changes. Appointments are required. FAES offers two programs this year: CareFirst Blue Cross/Blue Shield Blue Preferred PPO, and CIGNA Healthcare, a health maintenance organization. Also offered is a voluntary dental insurance plan through CIGNA.

For more information visit www.faes.org or the FAES business office, Bldg. 10, Rm. B1C18. To schedule an appointment, call 496-8063. FAES is open Monday - Friday from 8:30 a.m. to 4 p.m. ■

Youth Scholars Give Advice to Next Generation

Each year, the Interamerican College of Physicians and Surgeons, the American Association of Indian Physicians and the National Medical Association Auxiliary bring to NIH a group of Hispanic, American Indian or African American high school students. Students are selected to participate in the

National Hispanic Youth Initiative, the National Native American Youth Initiative or the National African American Youth Initiative

based upon individuals' interest in scientific careers. They spend 1 week in the Washington, D.C., area visiting various scientific organizations and studying the processes that affect research and public policy relative to health.

This past summer, four former youth initiative participants, who have moved up to other NIH pipeline programs, addressed the incoming students and encouraged them to follow in their footsteps by applying for other NIH programs.

Erik Cabral, a Stanford University graduate with a B.S. in human biology, was a member of the Undergraduate Scholarship Program (UGSP) in 1997 and



NCMHD director Dr. John Ruffin (c) meets with students (from l) Marlon Footracer, Erik Cabral, Bruce Sabath and Gabriel Linares.

1998. He visited NIH in 1995 as a Hispanic youth initiative scholar.

"Set clear goals for yourself," he advised. "Stay positive and be persistent even if things do not turn out as planned."

Gabriel Linares, who is pursuing a B.S. degree in neurobiology, physiology and behavior at the University of California, Davis, is a member of the UGSP for 1999-2001. An NHYI scholar in 1997, he

told the new crop of students to "always keep an open mind. Obtain some type of research experience before coming to the NIH."

The goal of the youth initiatives is to encourage minority high school students to remain in the academic pipeline and pursue careers in the health professions. During their visit to NIH, scholars visit laboratories and attend seminars that highlight NIH scientific activities and training programs. The visits are coordinated by the National Center on Minority Health and Health Disparities in partnership with NINDS and NHLBI. Nearly all NIH institutes and centers support the programs financially—Lorrita Watson. ■

NIDCR Staff Visit Jefferson Junior High School

NIDCR's Dr. Caswell Evans and Dr. Jamie Foster recently visited a science class at Jefferson Junior High School in Washington, D.C., a school known for its focus on science. Institute staff talked about the Surgeon General's report on oral health and conducted a hands-on science activity.

"I was very pleased that the level of interest in science was so high," said Foster, who gave a talk on how bacteria affect the development of oral tissues in animals. She also led an activity in which students placed their own dental plaque under a microscope lens and viewed oral bacteria. "The students were all very interested in participating in the activity, which was gratifying," she added.

Evans discussed the findings from the Surgeon General's report on oral health, focusing on two of its themes—the link between oral health and general well being as well as the issue of oral health disparities. He talked about the importance of the oral health/general health connection, using real life examples such as the oral complications of diabetes, which one student's relative had

experienced. Evans also broached the subject of health disparities among certain populations. He encouraged students to think about research careers, perhaps focusing their efforts on studying and eliminating such disparities in their own communities. Seeking out health information and becoming educated health consumers were other topics he raised with the students. Each student received materials about oral health and information on training opportunities.

Science teacher Phyllis Harvey-Buschell said she was excited and pleased to have NIDCR staff visit. She noted that such visits are critical to increasing students' awareness of research careers and underscore the importance of seeking out health information.

Two Jefferson students were among the winners of last year's poster contest—"Healthy Mouths-Healthy Bodies"—held in conjunction with the release of the Surgeon General's report on oral health. ■



Curtis Henry listens to peer talk.



Dr. Jamie Foster (l) and Jefferson Junior High School students prepare to view oral bacteria in dental plaque.

CRIS VS. MIS, CONTINUED FROM PAGE 1

realize that only about 7 percent of hospitals even have physician order entry. We've had it for a long time."

In its heyday, MIS was "one of the most fully automated and comprehensive systems now operating in a hospital," and "served in the role of prototype for such systems considered or installed by other medical centers," according to an article in the NIH Record, Aug. 31, 1982.



reported and retrieved; and it has no ability to send out warning flags when errors—typos or misconstrued orders, for example—are detected. Complicating the issue is the fact that the company that originally designed MIS no longer supports upgrades of the 26-year-old product. Helping MIS adapt to the modern era of computers has been costly—in time, effort and other resources. In addition, the

business aspects of patient care have never been incorporated into the operation of MIS, which was born in a different era of medical care and research.

"Twenty-six years ago, the cost associated with medical research was not a major factor," Rosenfeld pointed out. "That's not true anymore. We don't bill patients for their care here, but we still have to manage our resources carefully."



CC's Rosenfeld

Rosenfeld's model of a dream CRIS looks a lot like a flower. In the center is a clinical data repository, where all patient data would be collected from various sources. The sources—pharmacy, nutrition or medical records, for example—are represented individually on the diagram by the "petals" surrounding the core. Between the repository and the sources is a ring of actions that may occur during a patient's care—doctors' orders, for example, or scheduling of procedures. All sources and actions feed into the repository. The repository, in turn, sends all of its data to a clinical data warehouse, where it is stored for the long term.

As Rosenfeld emphasized, the main benefit of such a CRIS would be its flexibility and ability to grow and change as does the clinical research it supports.

"CRIS is not meant to reduce staff power or replace people with computers," he assured. "I believe it will reduce redundancy and increase efficiency. It will allow us to do better research and make us run as a better hospital. That's the bottom line."

Try to remember worklife before Windows, or the web, or even any common database programs.

A patient, John Doe, is admitted to the CC. So begins his medical paper trail—records of X-rays, prescriptions, blood tests, and vital signs readings—that could be dozens of pages thick within a few days' stay here.

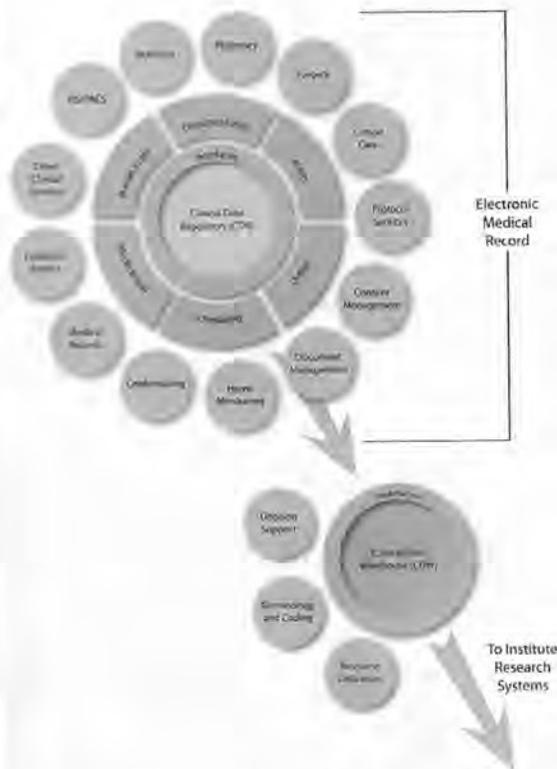
What if it were computerized, however, and more easily transported from physician to nurse to pharmacist? Enter MIS, which with the blink of the lighted pen that accompanied the screen and keyboard, transformed the way

medical information was managed.

A 1982 evaluation of MIS found the system "to be one of the most fully automated and comprehensive systems now operating in a hospital, and in the past, has served in the role of prototype for such systems considered or installed by other medical centers," according to an article in the *NIH Record*, Aug. 31, 1982.

But a lot has happened in the world of computers since the early 1980s. These days—the days of Access, FileMakerPro and other popular so-called relational database programs—patient care providers can generate all kinds of reports, depending on what questions they pose. "How many blood pressure screenings were taken within the last 7 days on patients with asthma?" a doctor could ask. "How many of those patients were over age 50?" "How many were men?" That is the kind of report the Information Age physician-researcher would like ideally, but MIS—never designed for that purpose—cannot easily produce.

Rosenfeld said that the increased complexity of clinical research has led to several reasons for phasing out MIS: The system cannot generate longitudinal data for studies conducted over time; its database is not relational, but proprietary—only its manufacturer can design how stored data can be



CRIS developer Dr. Stephen Rosenfeld's model of a dream system looks a lot like a flower.

Under no illusion that the transition from MIS to CRIS will be problem-free, Rosenfeld explained that the months of effort and time invested in the first phases will be amply rewarded in the long run.

"The first 5 years will definitely be the most intense," he concluded. "That initial period is the critical time. You start with what is basically a shell, and you have to describe your hospital in the language of their new system. That is the really tough part. It's necessary, though. With MIS, we've developed work-arounds for 26 years. I'd like CRIS to evolve for the next 26 years." ■

Satcher Gives Seventh Diggs Lecture

U.S. surgeon general Dr. David Satcher recently delivered the NIH Black Scientists Association's John W. Diggs Lecture before an overflow crowd in Masur Auditorium.

His topic was Healthy People 2010—Building the Next Generation of Healthy People; this is a set of national 10-year health objectives that were developed through a collaborative process and designed to measure progress over time. Now in its third decade, the Healthy People agendas are aimed at eliminating health disparities by addressing lifestyle changes, environmental issues and access to health care. Satcher also challenged NIH "to not only produce quality science but (also) to bring it to bear on policy issues of the country."



Surgeon General David Satcher

He described the national strategic plan for the elimination of health disparities, which has six targets: infant mortality, breast and cervical cancer, cardiovascular disease, diabetes, HIV/AIDS, and immunizations. Satcher said that an African American baby born in the United States is two times more likely to die in the first year of life, and an American Indian baby is one and a half to two times more likely to die than a baby born to the majority population. From 20 to 30 percent of African American men and 40 percent of African American women are more likely to die from coronary heart disease than the majority population, and American Indians are three times more likely to suffer from diabetes and its complications such as renal failure than the majority population.

Satcher also touched on: efforts to urge more women to have mammograms; the NIH-supported Jackson Heart Study of cardiovascular disease; and research on the prevalence of diabetes in the Ameri-

Wednesday Afternoon Lectures

The Wednesday Afternoon Lecture series—held on its namesake day at 3 p.m. in Masur Auditorium, Bldg. 10—features Johns Hopkins' Dr. Benjamin S. Carson on Oct. 24; he will speak on "Aspects of Pediatric Epilepsy Surgery." On Oct. 31, Dr. Janet M. Thornton will lecture on, "Protein Folds, Functions and Evolution." She is director, European Bioinformatics Institute, Cambridge, and director, BBSRC Centre for Structural Biology at Birkbeck College and University College, London. ■

can Indian community, including long-term studies in which NIH is engaged.

He also had encouraging news: "There is a decline in mortality from cancer in virtually all groups. However," he continued, "the decline is not the same for all groups."

Satcher also discussed the Leading Health Indicators and 10 major public health issues described by the Institute of Medicine. These include lifestyle issues such as physical activity, overweight and obesity, tobacco use, substance abuse, and responsible sexual behavior. "One-half of the deaths in this country each year are related to lifestyle," he remarked. He noted that we have a vaccine available to prevent pneumococcal pneumonia but large numbers of those who should get it do not. We can make advances in these areas, he assured, but "there is something wrong with our (delivery) truck."

Also at the event, BSA awarded the Cheryl Torrence-Campbell Memorial Scholarships, two of which are presented each year to graduating seniors from District of Columbia high schools who intend to pursue studies in the sciences.

This year's recipients are Alisha Williams of Eastern Senior High School, who plans to attend Howard University, and Victor Davis of Benjamin Banneker Academic High School, who will attend Princeton University. Each was given a plaque and a \$1,000 check.

This was the seventh annual John W. Diggs lecture, which honors a former NIH deputy director for extramural research who was noted for his contributions to NIH, the scientific community at large, and for his efforts in advancing underrepresented minorities in the biomedical sciences. The series was established in 1995 as a forum to highlight the accomplishments of black scientists from around the country. The lecture can be viewed at <http://videocast.nih.gov/>. For information on BSA, visit <http://BSA.od.nih.gov>.—Alfred Johnson and Sharon Jackson ■



High school student Alisha Williams accepts a scholarship award from Dr. Wayne Bowen, president of the NIH Black Scientists Association.

Leo Winkler Closes Locker After 27 Years

By Rich McManus

Down on the B1 level of Bldg. 31's A wing, in a ragtag locker room once used by the NIH Police, there stands a rusted, gray metal locker emblazoned, like its mates, "Joggers Only." Except this one has something different: taped to the locker door is a dark Polaroid photo of a grinning gentleman bearing a gym bag. The subject of this modest memorial is Adolph Leo Winkler, an accounting technician in the Office of Financial Management who on the Friday before Labor Day pulled on a fresh set of running shoes and commenced the final noon-hour jog of his 27-year NIH career; it was also the last lace-up in 19 consecutive years of running out of the basement of Bldg. 31 every Monday, Wednesday and Friday, and the capstone of 44 years of employment.

Men's locker rooms, for those not familiar, are the homeland of the terse acknowledgement. "Hey, how ya doin'?" is almost too garrulous and intimate an expression. But not for Leo. Among the small cadre of regular noontime runners, he was well known and warmly received for his fearless declarations, homespun wisdom, and for hosting within himself the sort of common-man dignity before which pomp must surrender its plumes. He talked to anyone, and he usually laughed. His laugh could be a bit jagged and editorial, underscoring the subject of his amusement rather pointedly.

Leo was reared in Allegany County, Md., where his dad was a coal miner. "At a very early age, I decided against that as a career," he said.

Upon graduation from Valley High School in Lonaconing, Md., he enlisted in the Air Force, spending 3 years doing "mostly administrative work." After his hitch, he enrolled at Frostburg College in western Maryland, but had to drop out for financial reasons after only a semester. "There was no peacetime G.I. Bill," he laments.

Then commenced a series of tough years of relatively brief employment in a variety of corporate trenches, starting with the Hercules Powder Co.'s missile research facility in Pinto, W.Va. In 1965, he moved to Montgomery County where his brother was employed, and worked for companies that became BAE, Control Data, and Eaton Co. In 1966, he began an educational marathon of part-time enrollment at Montgomery College that would culminate in the accumulation of 120 credit hours ("two times more than I ever needed"), which preceded another 10 years of evening classes at the

University of Maryland. He earned his bachelor's degree in health management services in December 1998.

Leo came to NIH on July 6, 1974, as a voucher examiner in the OD travel office. "I came here because I recognized I didn't have any stability" in the private sector, he said. "I considered the job here recession-proof." He spent 7 years in that position, did a brief stint as a payroll liaison with DHHS, then transferred to commercial accounts in 1982, where he remained until retiring. "I spent my whole 27-year career on the same hallway on the B1 level of Bldg. 31," he noted.

At a retirement party attended by some 85 friends and colleagues recently, Leo regaled the audience with a 4-page speech highlighting the ups and downs of the years that have elapsed since he arrived here as a "wounded corporate warrior."

He decided to retire a year ago to take care of his ailing wife, Jean, but she has since recovered and now the couple must decide whether to stay in the county, where they live in a home Leo had built (and where he tends a vineyard and makes wine—"I call it marginal quality"), or return to western Maryland, where relatives and a cheaper cost of living beckon.

Regardless of where they settle, Leo will run; he is a one-man advertisement for the benefits of exercise. He began the habit in 1982. "It stemmed out of having a serious arthritis problem in my shoulder," he explained. "I had started swimming [as therapy]



Leo Winkler gets ready for the last jog of his NIH career on Aug. 31. The locker to his right bears a dedicatory photo of him, taken by another NIH runner, Paul Coppola.



At her resignation announcement as NIH director on Feb. 26, 1993, Dr. Bernadine Healy registers an expression demonstrating that Leo Winkler once again connected with a fellow NIH'er.

for 2 years and got tired of that, and thought that exercise would eliminate the arthritis. A secretary down the hall—Mary Young-Palsgrove (now in the Clinical Center)—got me to jog. So I began at noontime and I'm still at it."

Leo ran for years with a group of a half-dozen employees who cruised the campus perimeter, but



people gradually dropped out, leaving only him to school whatever new generation of runners fate would provide in the basement of Bldg. 31. Rock Creek Park became his favorite running venue.

"I haven't had any problems for years with arthritis," he declares. "I had really been in pain."

He intends to maintain his running regimen in his neighborhood: "I have a 4-mile route pegged out."

He leaves NIH "without any regrets about anything—I feel good." As he said in his retirement speech, "My advice is to work hard, play a lot and don't think too much. Enjoy your life!...What would a man have accomplished had he gained the whole world and lost his soul?" ■



Dr. Donna Vogel (l), director of the NCI Fellowship Office, and Dr. Alan Rabson (r), NCI acting director, flank three winners of the institute's Outstanding Mentor Award, which was presented at an annual awards ceremony recently. The awardees are (from l) Dr. Lalage Wakefield, Dr. Frank Gonzalez and Dr. Elaine Jaffe. The mentor award, presented in 2001 for the first time, recognizes intramural scientists for excellence in mentoring and guiding the careers of trainees in cancer research. At the same ceremony, eight NCI investigators were recognized as Mentors of Merit. These include (below, from l) Dr. Mark Schiffman, Dr. Grace Yeh, Dr. Genoveffa Franchini, Dr. Frank Balis, Dr. Frank Cuttitta and Dr. Thomas Walsh. Not shown are Dr. Scott Durum and Dr. Ira Pastan.



Have Behcet's Disease?

Do you have eye inflammation from Behcet's disease? Take part in an NIH research study to test potential new treatment of this complication. For more information call 1-800-411-1222 or 1-866-411-1010 (TTY). ■

CIT Computer Classes

All courses are on the NIH campus and are given without charge. For more information call 594-6248 or consult the training program's home page at <http://training.cit.nih.gov>.

LISTSERV Electronic Mailing Lists: Hands-On Workshop for General Users	10/17
Data Warehouse <i>Analyze</i> : Human Resources	10/17
Getting a New PC? – Understand the Technical Terms	10/18
LISTSERV Electronic Mailing Lists: Hands-On Workshop for List Owners	10/18
Disaster Recovery	10/18
Data Warehouse <i>Query</i> : Human Resources Fellowship Payment	10/18
Introduction to Networks	10/19
PowerPoint Topics: Graphs, Links and More	10/19
SAS Programming Fundamentals II	10/22-23
C Language	10/22-31
Creating Presentations with PowerPoint 2001 for the Mac	10/23
BRMUG - Macintosh Users Group	10/23
Hubs, Switches, and Routers	10/24
Introduction to HTML	10/24
KMIG-Knowledge Management Interest Group	10/24
The NIH Intranet Web Portal: An Overview of Technology and Content	10/25
WHALES - Web Homology ALert Service	10/25
Budget Tracking	10/25
Avoiding Pitfalls in Statistical Analysis	10/26
Data Warehouse <i>Query</i> : Travel	10/26
PowerPoint Topics: Graphs, Links and More	10/26
Introduction to FileMaker Pro 5 for the Mac	10/29
Data Warehouse <i>Query</i> : Technology Transfer	10/29
Relational Database Overview	10/30
DW <i>Analyze</i> : Budget & Finance	10/30
Simplifying Diffusion Equations Where There Is Radial Symmetry	10/31
FasTrac Overview	10/31
Creating Presentations with PowerPoint 2000 for the PC	10/31

Have Allergic Asthma?

Volunteers ages 18-50 with asthma made worse by exposure to allergens (dust, pets, pollen) are needed for a research study of allergen immunotherapy (allergy shots). Participants will have allergy and lung function tests and will have blood drawn. Compensation is provided. Contact Mary at 496-7935.

HRDD Class Offerings

The Human Resource Development Division supports the development of NIH human resources through consultation and provides training, career development programs and other services designed to enhance organizational performance. For more information call 496-6211 or visit <http://LearningSource.od.nih.gov>.

Foreign Travel	10/29-30
IMPACT for Administrative and Professional Staff	10/31
Fellowship Payment System	11/1
IMPACT System for HR Staff	11/1
Delegated Acquisition Training Program	11/5-8
NIH Retirement Seminar—CSRS	11/5-7
Basic Time and Attendance	11/5-6
IMPAC II Committee Management for SREA Staff	11/7
IMPAC II Peer Review Module	11/8

Post-Sept. 11 Security Measures Mimic NIH Response after Pearl Harbor

By Victoria A. Harden

Many of the procedures put into place after the national emergency on Sept. 11 recalled the response of NIH the last time America was directly attacked. That, of course, was at Pearl Harbor, on Dec. 7, 1941. In both cases, NIH was required to shift quickly from an open campus with scant security to a controlled environment while attempting to maintain a collegial environment for research.

On Monday, Dec. 8, 1941, Dr. Lewis R. Thompson, the NIH director, sent a memo regarding security to all NIH division chiefs "and Others Concerned," regarding identification for staff and visitors. Only visitors with a pass obtained "from the guard on duty at the entrance to the grounds" were to be admitted. The campus at this time was comprised of Bldgs. 1-6 plus the officers quarters on Cedar Lane and the original buildings of the Wilson family that now make up the Bldg. 15 group. The only entrance to Bldgs. 1-6 was via Wilson Drive.

A little over a week later, Thompson consulted with the supervising engineer of the federal government's Public Buildings Administration about installing access doors to roofs of NIH buildings and incinerators in case of incendiary bomb fires.

Without such access, NIH firemen would have to fight any fires that might endanger the buildings via "attic dormer windows

and a series of ropes fastened to chimneys...which, of course, is extremely perilous."

On Dec. 19, Thompson wrote to the chief of the Protection Division of the Office of Buildings Management regarding his need to arm the guards at NIH. "As we do not have a pistol range on which to hold target practice for these men," he asked if the NIH guards could use their range "for such times as it might be free for this purpose."

Thompson himself remained as NIH director only until Feb. 1, 1942. On that date, Surgeon General

Thomas Parran shifted him back to the central Public Health Service staff and ap-

pointed Dr. Rolla E. Dyer, then director of the Division of Infectious Diseases, as NIH's wartime director.

Between September 1939, when Germany invaded Poland and launched war in Europe, and Dec. 7, 1941, the U.S. remained officially neutral, so preparations for wartime activity were kept to a minimum. The 3-year pre-war period was also the time that NIH built and moved to its Bethesda campus from the campus at 25th and E Streets, N.W., in Washington, D.C.—near today's Kennedy Center for the Performing Arts—where it had been housed since 1904. On Oct. 31, 1940, President Franklin D. Roosevelt came to Bethesda to dedicate the new campus buildings. His speech linked NIH research to American defense: "We cannot be a strong nation unless we are a healthy nation. And so we must recruit not only men and materials but also knowledge and science in the service of national strength. That is what we are doing here."

In September 1940, Japan signed a mutual-assistance pact with Germany and Italy that turned the European struggle into a global war. In that same month, President Roosevelt signed the bill creating the first peacetime draft in U.S. history, even though Roosevelt was running for reelection in November on a promise to keep American boys out of war. Establishing a military draft required the Selective Service to evaluate the physical condition of potential recruits. NIH worked with the Selective Service and found that 43 percent of the examined men were unfit for general military service. The most common cause of rejection was defective teeth. Many of those rejected also had syphilis or other preventable health problems. Surgeon General Parran pointedly stated that "American manpower is going to waste in the worst crisis in our history because of neglect of medical, dental or surgical care."

The health problems of Americans highlighted in World War II were not forgotten after the war, when the National Institute of Dental Research, the National Heart Institute, and National Institute on Mental Health were created by Congress, and the original divisions at NIH were reorganized into the National Microbiological Institute and the Experimental Biology and Medicine Institute. The contributions of NIH scientists during World War II, which included research for combat problems as well as research to help industry on the homefront, focused almost entirely on war-related problems and contributed to the high regard for medical research that led to broad-based support for NIH when the war ended.

(Dr. Victoria A. Harden is the NIH historian.) ■

Memorandum to Chiefs of Divisions,
and Others Concerned,
National Institute of Health.

Effective this date, no person other than an employee of the National Institute of Health is to be admitted to buildings or grounds during working hours without a pass obtained from the guard on duty at the entrance to the grounds. Such pass must be surrendered to the guard upon leaving the grounds. Cooperation of all employees is requested in reporting the presence of unauthorized persons upon the reservation and in seeing that visitors accompanying them secure a pass for admission.

Sir:

Due to the recent turn of events it becomes necessary to arm the guards of the National Institute of Health at Bethesda, Maryland.

As we do not have a pistol range on which to hold target practice for these men, I am wondering whether we could secure, for short periods of time, the use of your range for such times as it might be free for this purpose. Anything you can do for us will be appreciated.