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U.S. Department of Health
and Human Services

National Institutes of
Health

"Still
The Second
Best Thing
About Payday"

The NIH Record

Advice Commonly Ungiven

Doctors Urged To Help Patients Snuff Out Tobacco Use

By Rich McManus

A former head of NCI's Medicine Branch returned to NIH last month with a prescription for saving some 400,000 American lives each year. Much of that number could be spared simply by quitting tobacco use, he said.

An estimated 2.5 million smokers could be urged to drop their habit each year if physicians would only ask about their smoking, advise them to quit, then assist them in the effort to overcome a powerful nicotine addiction by arranging followup help, said Dr. Robert C. Young, president of Fox Chase Cancer Center in Philadelphia.

"This (advice) involves no new discovery, no new drug, no fancy new gene splicing technique, no anything," he said. "It's not that complicated, but we (physicians) don't do it.

"Smoking," he thundered twice for emphasis, "is the single most important cause of preventable morbidity and premature mortality in the United States."

Not only does smoking cause cancer, but it also sickens those in the vicinity of smokers and their unborn children, said Young, who conceded that a climate of tobacco avoidance is harmed by the fact that tobacco is the most heavily advertised and promoted product in the United States.



Dr. Robert C. Young

Getting Americans to quit smoking is "not a medical problem, for the most part," Young said. "Rather it is a political problem, a behavioral problem, a socioeconomic problem. It is not a problem of medical knowledge, but

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Most-Cited Women in Science Have NIH Connections

By N. Sue Meadows

Eight of the 10 women recently identified by the Philadelphia-based Institute of Scientific Information (ISI) as the most-cited women in science have received NIH research grants and have served as reviewers for the NIH peer review system. Three of these scientists are supported by an NIH MERIT Award, which provides extended support to foster the continued research achievements of distinguished scientists. At least two have worked in the intramural labs on the NIH campus.

According to the ISI, the list of the 10 most frequently cited women in science was compiled from the files of ISI's *Science Citation Index* through a computer study that counted how often each scientist's published work had been cited in articles written by other scientists.

The scientist most cited was Dr. Flossie Wong-Staal, who is an NIAID and NCI-supported researcher at the University of California at San Diego and was previously at

(See **CITATION**, Page 6)

Nurturing Tradition, Fostering Change'

Women's History Program Highlights Individual Effort

By Carla Garnett

Take another look at the past before creating the future, urged each speaker at the recent Women's History Month program, "Nurturing Tradition, Fostering Change," sponsored by the Division of Equal Opportunity's Federal Women's Program and NIH's advisory committee for women.

DEO Director Diane Armstrong described women's history as a dramatic new approach to the past that tells the nation's story from a woman's perspective. "Women's history looks at the past through a wide angle lens taking in a much broader vision," she said. "It doesn't rewrite the facts but it does make very different judgments about what is important in history."

Armstrong noted that more women than men have entered the civilian workforce in the last decade and that women accounted for 62 percent of the increase in the labor force since 1979. Yet, she said, women are still being paid 70 cents for every dollar made by men in comparable jobs. In 1989, one-third of working women were in six fields traditionally

NINDS Trial Shows That Surgery Prevents Stroke

By Frances Taylor

Surgery to remove fatty deposits from the neck's carotid arteries, which supply blood to the brain, prevents stroke in patients with severe, symptomatic carotid blockage, according to early results from a trial funded by the National Institute of Neurological Disorders and Stroke.

The surgery, carotid endarterectomy, is frequently performed, but controversy over its effectiveness and improvements in nonsurgical treatments have triggered a sharp decline in its use in recent years.

NINDS scientists now urge physicians to take another look at the surgery's benefits for selected patients, saying these trial results show that surgery, when added to appropriate medical care, cuts stroke risk by two-thirds from that of medical care alone.

"Although alternative medical treatment with anti-hypertensive and anti-clotting drugs has improved, these results suggest that practicing physicians should take a second, longer look at carotid endarterectomy," said Dr. Michael D. Walker, director of the institute's Division of Stroke and Trauma. "The surgery dramatically benefits the group of patients reported here."

As part of the 5-year NINDS trial, invest-
(See **STROKE**, Page 2)

dominated by women—secretarial, primary education, administration, retail, bookkeeping, and machine operation. Armstrong said NIH is proud to employ women in key roles at all grade levels.

"Many of the women who have made history are among our most prominent biomedical researchers," said Dr. Ruth Kirschstein, NIGMS director and acting director of NIH's Office of Research on Women's Health. She cited such scientists as Nobel Laureate Gertrude Elion and National Academy of Science member Dr. Maxine Singer, a former NIH lab chief. "NIH will be making history when our new director, Dr. Bernadine P. Healy, becomes the first woman director of NIH," Kirschstein said.

When keynote speaker Dr. Beverly Coleman-Miller took her look back at history, however, she was not necessarily encouraged. What she found, she said, was 100 years of battling basically the same societal problems.

"I could go a long way back—women have
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STROKE

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tigators at 50 centers in the United States and Canada studied 595 patients under 80 years of age with at least 70 percent narrowing of a carotid artery. All enrolled patients were symptomatic, having had either a non-disabling stroke or at least one transient ischemic attack in the preceding 120 days. In a transient ischemic attack, or TIA, stroke-like symptoms resolve within 24 hours.

Investigators provided all patients with the best available medical care, including aspirin or other blood-thinning drugs, dietary counseling and, when indicated, smoking cessation advice and treatment for high blood pressure, high cholesterol and diabetes.

Three hundred randomly chosen patients also underwent surgery on the narrowed carotid artery by qualified neurosurgeons or vascular surgeons who had previously demonstrated the ability to perform the surgery with a very low incidence of complications.

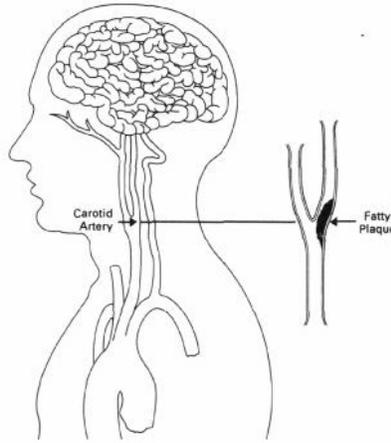
After 18 months, 24 percent of medical patients, but only 7 percent of surgical patients, had suffered a stroke on the affected side.

The trial was coordinated by NINDS grantee Dr. Henry J.M. Barnett at the John P. Robarts Research Institute in London, Ontario.

Because of the trial findings, NINDS halted the medical treatment arm for severe carotid blockage on Feb. 22 and issued a clinical alert detailing trial results to the medical community on Feb. 25.

The use of carotid endarterectomy peaked at 107,000 operations in the U.S. in 1985 and has fallen rapidly since. In 1987, 81,000 Americans underwent this operation.

"Many questions must still be addressed about this surgery," said NINDS director Dr.



Fatty deposits can narrow the neck's carotid arteries and trigger formation of blood clots. When these clots choke off the brain's blood supply or break off to block smaller arteries, a stroke results. In carotid endarterectomy, surgeons remove fatty plaque to restore the artery's original contour.

Murray Goldstein. "We need to learn if it works in asymptomatic patients with carotid artery disease and in symptomatic patients whose carotid blockage is less severe."

The investigators will continue to observe the 595 patients with severe carotid narrowing for the full 5 years, and a second portion of the trial will continue to examine the effectiveness of carotid endarterectomy in symptomatic patients with moderate (30 to 69 percent) carotid narrowing.

A second NINDS-sponsored trial is underway to test the efficacy of carotid endarterectomy in patients with carotid narrowing who are asymptomatic.

Stroke, an interruption of blood flow to the brain, affects about 500,000 Americans each year, causing about 145,000 stroke-related deaths. □

Women's Cultural Workshop Set

The Division of Equal Opportunity's Federal Women's Program and the advisory committee for women will sponsor the second in a series of workshops on cultural diversity at NIH. The program will be held on Friday, Mar. 22 from 10 a.m. to noon in Bldg. 31, Conf. Rm. 6.

Dr. Madeleine M. Leininger, the guest presenter, will speak on "How Women's Differing Cultural Values Contribute to the Work Force."

Leininger states that there are cultural differences in the way women contribute to the effectiveness of the work force. In her lecture, she will explore these differences and the ways women's beliefs and life styles could mesh with organizational philosophy to promote better quality work.

An internationally known educator, author, theorist, administrator, researcher, and consultant, Leininger is professor of nursing and adjunct professor of anthropology at Wayne State University. She is a pioneer in the field of transcultural nursing and a leader in human care theory and research.

All NIH employees are invited to attend. For more information or reasonable accommodation, call Toni Pineau, 496-6301. □

The NIH Record

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Dr. James Hogle (second from l) of the Research Institute of Scripps Clinic was recently presented with the Wallace P. Rowe Award for Excellence in Virologic Research. The award was presented during NIAID's 7th annual Wallace P. Rowe Symposium on Animal Virology by symposium cochairs (from l) Dr. Malcolm A. Martin, chief of the Laboratory of Molecular Microbiology; Dr. Janet Hartley, head of the viral oncology section, Laboratory of Immunopathology; and Dr. Robert M. Chanock, chief of the Laboratory of Infectious Diseases. Hogle was recognized for his innovative studies, utilizing x-ray crystallography, that have defined the fine structure of poliovirus and successfully probed the relationships between structure and function of viral components.

Bishop Decries Loss of Momentum in Science

At the end of a recent lecture he gave as the guest of NIDR's Visiting Scholars Program, Nobel Laureate J. Michael Bishop of the University of California, San Francisco, drew a disheartening parallel between science and society.

His lecture had focused on proto-oncogenes and their probable role in causing tumors; cancer appears to be caused by genetic damage resulting in either gain or loss of gene function.

America is losing her edge in science leadership, he suggested, by damaging science's function through underfunding.

"I am anxious for the future of (my work) and of all of biomedical science," Bishop said. NIH is funding fewer new research grants than it did a decade ago, and "federal funds for training future scientists have been attenuated to the vanishing point. We of America are sending A-plus performers home empty-handed.

"The decline in federal support undermines the effectiveness and morale of established scientists," he continued. "The physicist Leon Lederman has documented this in anecdotal yet graphic manner, in his report circulated recently with *Science*. In his words, '... something very dark and dramatic is taking place in our universities, a deep sense of discouragement, despair, frustration, resignation, a quenching of the traditional optimism of research scientists.'"

Bishop told the standing-room-only audience in Masur Auditorium that he had recently visited science students at San Francisco's premier public high school:

"My encounter with those students began as an exhilarating experience: eager young faces and intellects, perceptive questions, enthusiasm for my tale of discovery. But it

ended on a disheartening note. When I asked the students about their plans for careers in science, I learned once again that you cannot fool all of the people all of the time—especially when they are young, smart and pragmatic. 'Why should we consider careers in basic research,' the students asked me, 'when we know that scientists are no longer able to get the grant money they need to work?' These youngsters are only 16 and 17 years of age, but they too have heard the message."

Bishop argued that "we need to entice more young minds into science, not discourage them with inadequate funding: the scientists we recruit today are both the discoverers and the teachers of tomorrow."

Bishop illustrated his opinions on U.S. budget priorities with a telling slide: Americans spend \$140 billion annually on recreational drugs, \$8 billion on NIH (including \$1.6 billion on cancer research), \$1.8 billion on Nintendo, and \$1 billion on popcorn.

"The limits we now face on research and education are unacceptable for those of us who believe in the inherent value of fundamental research—not only for the health and welfare of humankind, but for the very soul of our culture," said Bishop. "If we can find a billion dollars a day to bale out dubious financial institutions, another billion a day to fight an unanticipated war, and more than a billion a year to purchase Nintendo computer games, surely we can find the funds required to restore and sustain the vibrancy of our research enterprise.

"It is time for the community of science to make its voice heard with unprecedented insistence," he concluded, "before the politics of greed foreclose on the future."—Rich McManus □

Symposium Will Honor Cantoni

A symposium entitled, "S-Adenosylmethionine and Biological Methylation," will be held in honor of Dr. Giulio Cantoni on Mar. 21 and 22 in the Lister Hill Center, Bldg. 38A. The event, which begins at 8:30 each morning, is being cosponsored by FIDIA Research Foundation and the NIMH Intramural Research Program.

Cantoni and colleagues first discovered S-Adenosylmethionine (AdoMet) more than 35 years ago. This distinguished physician and scientist currently serves as chief of the Laboratory of General and Comparative Biochemistry, NIMH. His research focuses on the biochemical mechanisms of importance in the metabolism and functions of the nervous system in mental health and illness.

Cantoni's career, which spans more than five decades, has been devoted to the discovery and elucidation of AdoMet and its biochemistry. He is prominent as a long-time member of the National Academy of Sciences.

AdoMet is the methyl donor in all known biological methylation reactions and is synthesized from methionine and ATP in every cell. It has been calculated that more than 6 percent of the enzymes presently identified utilize AdoMet as a substrate. AdoMet therefore ranks with ATP as a pivotal molecule in biology and displays a unique biochemical versatility. Recent discoveries from laboratories throughout the world emphasize the importance and varied roles of AdoMet in biology. It has been found that the methylation of DNA, RNA and proteins can affect gene expression in eukaryotes, the processing and transcription of mRNA, bacterial and eukaryote chemotaxis, sensitivity to bacterial toxins and resistance to antibiotics.

The symposium on "S-Adenosylmethionine and Biological Methylation," will present 25 international research scientists as speakers, including Nobel laureate Dr. Julius Axelrod. Each speaker will present a talk on work performed in collaboration with, or as a direct result of the research findings of, Cantoni.

The symposium's major topics include "Enzymatic synthesis and metabolism of AdoMet," "The biochemical role of AdoMet," "Macromolecular methylation," and "DNA methylation."

While the symposium is open to the public, preregistration is required due to limited seating. Call the FIDIA Research Foundation, (202) 337-7185, for further information. □

PC-MLAB Course Offered

The DCRT is planning a PC-MLAB lead user course for early April. The software operates on personal computers and is intended as a replacement for the DEC-10 MLAB system. Interested persons should call Dr. John Fletcher (496-1121) or Mary Hodges (496-6037) for further information. □



NIH acting director Dr. William Raub (second from r), and Drs. J. Edward Rall (l), NIH deputy director for intramural research, and John Diggs (r), NIH deputy director for extramural research, recently met with Howard University president Dr. Franklyn Jenifer (second from l) to discuss establishment of a collaborative Ph.D. program between the two institutions. Jenifer revealed a plan Feb. 5 that, if adopted by trustees, would make research a major focus in the school's curriculum. Howard, a private university with a predominantly black student body, receives about 60 percent of its operating budget from the federal government. (Photo: Courtesy Alex Jones Photography)

SMOKING

(Continued from Page 1)

a problem of medical behavior."

Addressing an audience of caregivers attending the weekly NCI-Clinical Oncology Program Combined Rounds, Young armed his listeners with compelling facts:

Low tar and nicotine cigarettes do *not* result in less nicotine exposure for the smoker.

Two cans of tobacco snuff consumed in a week equal the health risk of smoking two packs of cigarettes *daily*.

Though lung cancer tops the list of cancers caused by tobacco use (a 2-25 fold added risk), the risk of other cancers (not to mention pulmonary disorders) is increased dramatically by tobacco use: larynx cancer risk goes up 2-27 fold, and oral, esophageal, pancreatic, and bladder cancer risk also rises.

Nonsmokers living or working in smoky environments—so-called "passive" smokers—can inhale the equivalent of 5 cigarettes per day.

Nonsmoking spouses of smokers have 1.6-3.5 times the risk of developing lung cancer.

Passive smoke harms children in the following ways: low birth weight, increased asthma,

"Smoking is the single most important cause of preventable morbidity and premature mortality in the United States."

—Dr. Robert C. Young

more frequent middle ear infection, more respiratory infections, and greater risk of sudden infant death syndrome (SIDS).

"The total direct health costs of tobacco use amount to \$16 billion per year," said Young. "Smoking also causes \$500 million in losses due to accidental fires. Smoking is the nation's leading cause of fire deaths."

Young said that cigarette advertising now exceeds \$2 billion yearly, or more than the entire NCI budget. Tobacco advertisement and promotion, furthermore, have expanded sevenfold in the last decade.

"Women, minorities and blue collar workers have been targeted for recent campaigns," Young stated, adding that tobacco companies are particularly remiss for allowing, without any legal challenge, manufacturers of candy cigarettes to employ logos nearly identical to actual tobacco brands—thus encouraging smoking among youngsters.

Young also charges that tobacco's huge advertising budget influences media coverage; since newspapers and magazines derive much of their income from tobacco ads, they are reluctant to bite the hand that feeds them, he suggested. He also blamed the media for failing to cover adequately the adverse consequences of smoking.

"There is a conspiracy of silence on smoking and health," he said.

Young marshalled more facts to make his case against tobacco:

Ninety percent of smokers want to quit and have tried repeatedly to do so. Eighty percent of those who do quit relapse, two-thirds within the first few weeks.

More than half of smokers have never been advised by their physicians to stop smoking.

Twenty to 40 percent of those who participate in formal smoking cessation programs are smoke-free after 1 year. The quit rate for those who switch to nicotine gum ("Nicorette in heavy smokers works in a similar fashion to methadone in drug addicts," said Young.) versus those who seek counseling is about the same—44 percent.

"There is no doubt about the addictive nature of smoking," Young admitted.

Quoting from a study that examined smokers' quit rate 1 year after they decided to stop, Young said only three-tenths of a percent of smokers were able to quit cold turkey on their own initiative. About 1.6 percent quit after a single intervention. Double that number are cigarette-free a year after being advised strongly not to smoke. But 5.1 percent of smokers remain tobacco-free 5 years after followup treatment and a questionnaire.

"There are a lot of opportunities in this country for doctors to intercede with smokers," said Young, who said U.S. physicians see about 45 million smokers yearly and would need to spend only 2 to 4 minutes discussing the perils of tobacco use with each patient.

On a positive note, Young reported that the percentage of smokers in the U.S. is declining. In addition, physicians' smoking rate is now about half the public's rate.

"Seventy percent of smokers say they'd quit if their doctors helped them," said Young, who begged the physicians in the audience to ask their patients about smoking. "The risks for cancer and a whole host of other diseases go down as soon as you stop smoking," he added.

While tobacco drew most of Young's attention, he also urged that people take advantage of other cancer prevention strategies that are widely available:

Breast Cancer—One in 9 women will get it, for a total of 175,000 cases a year and 45,000 deaths per year. "It is the second most common cause of cancer death in U.S. women, running almost neck and neck with lung cancer," said Young. A 30 percent reduction in breast cancer mortality could be realized through mammography, he stated.

Women ages 40-50 should have a mammogram once every 2 years, and annually after age 50.

"A huge number of women never get any mammogram," said Young. "At least 50 per-

cent of women have never had one, ever. Ten to 15 percent of the population don't know that an absence of symptoms is not a reason not to get a mammogram." A federal government study done in 1987 showed that 72 percent of women over age 40 never had a mammogram.

While many women think a family history of breast cancer is important in electing a mammogram, Young said that seven times as many women without a history of breast cancer get the disease as those with a history of breast cancer.

Cervical Cancer—Thirteen thousand new cases are diagnosed annually. Of 4,500 yearly deaths due to cancer of the cervix, 85 percent of the patients never had a Pap smear. Physicians recommend annual smears beginning at age 18 or whenever sexual activity commences. After three or more negative Pap smears, a woman can get them at her physician's discretion. Young said 81 percent of American women have had at least one smear, but one-third of those over age 40 have not had one in the last 3 years.

"As with mammography, the frequency of Pap smears is very education and income-driven," reported Young.

Colorectal Cancer—Some 145,000 new cases are diagnosed each year, with 60,000 deaths annually. While new adjuvant chemotherapy treatments might save 10,000-15,000 lives each year, Young says five times that many people could be spared with earlier and better diagnosis.

"The risks for cancer and a whole host of other diseases go down as soon as you stop smoking."

The average risk of colon or rectal cancer occurs in the 40-50 age group. An annual digital rectal exam is recommended for those ages 40-50. After age 50, an annual test for fecal occult blood is recommended. A sigmoidoscopy is advised every 3-5 years in this age group and beyond.

Young began his lecture lamenting the fact that never in his medical training was he taught how to prevent an illness. "We're trained to treat, not to prevent," he said. He concluded his remarks with a declaration made famous by a cartoon character named Pogo: "We have met the enemy and he is us."

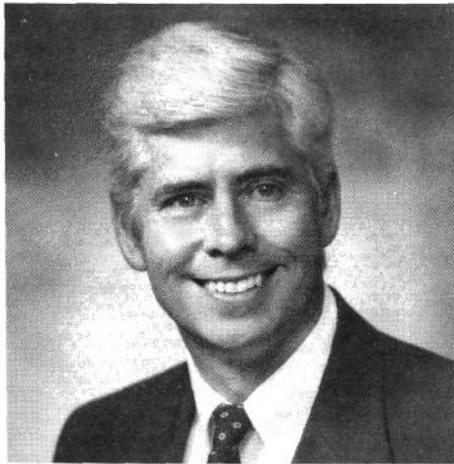
"The prevention strategies I have reviewed are not expensive, not complex and not new," Young emphasized. "You don't have to be a rocket scientist to figure them out. The fact remains that prevention, along with better diagnosis and screening techniques, must be part of the natural medical care that we dispense." □

NIDDK's Jay Hoofnagle Wins Appel Prize

Dr. Jay H. Hoofnagle, director of NIDDK's Division of Digestive Diseases and Nutrition, has been selected by the Rotterdam Liver Foundation to receive the first Appel Prize for "breakthrough work in hepatology in the last 5 years." The \$10,000 Appel Prize will be given every 2 years for the highest achievements in the field of hepatology. Chosen by an international jury from among candidates proposed by Dutch hepatologists, Hoofnagle will deliver the Appel-prize lecture in November at the liver symposium of the 7th Rotterdam Liver Day in the Netherlands.

Hoofnagle came to NIH as a staff associate in 1972. His early accomplishments included developing antibody tests for hepatitis B and characterizing the epidemiology of that disease. Later, as senior investigator in the liver diseases section of NIDDK, he characterized the natural history of chronic hepatitis B and of non-A, non-B hepatitis. He initiated several trials of antiviral therapy in chronic hepatitis B and was the first scientist to report on the beneficial effects of alpha interferon in chronic non-A, non-B hepatitis, a treatment that recently has been approved by the Food and Drug Administration. He clarified the virologic and immunologic mechanisms of liver injury in hepatitis B and studied the role of this infection in the etiology of cancer.

Hoofnagle has also led research in immunologically mediated diseases including primary biliary cirrhosis, sclerosing cholangitis, and autoimmune chronic active hepatitis. These investigations have dealt largely with the immune mechanisms of dis-



Dr. Jay H. Hoofnagle

eases and alteration of immunologic features with immunomodulatory therapies.

A graduate of Yale Medical School, Hoofnagle came to NIH after internship and a year of residency in internal medicine at the University of Virginia Hospital. Later, he continued clinical training in internal medicine, gastroenterology, and hepatology as a resident at the Veterans Administration Hospital in Washington, D.C. He returned to NIH in 1978 as a senior investigator in NIDDK's liver diseases section. He was made the acting clinical director of the institute in 1986 and was appointed the director of the Division of Digestive Diseases and Nutrition in 1988. □

PEF Auction Planned, May 14

Win *Phantom of the Opera* tickets at the Clinical Center. Two box seats to this acclaimed performance at the Kennedy Center are just one of the items that will be auctioned at the annual Patient Emergency Fund (PEF) Auction.

The seventh annual auction to benefit the PEF at the Clinical Center is scheduled for May 14. Last spring's auction raised more than \$11,000 for the patients at the CC. The PEF has been helping patients and their families meet emergency expenses since 1953.

The R&W Association is sponsoring the PEF auction and collecting goods to be sold. Donations to the PEF auction may take any form, from a vacation home for a weekend to used items for the white elephant sale. Donations in recent years have included two tickets to the Washington Ballet, a two-night stay at the Carousel Hotel and Resort in Ocean City, Elizabeth Arden makeup application, haircut and blow dry, front end alignment, photo portrait, and two simple wills. Other donations included homemade cookies and cakes for the bake sale part of the auction and craft items.

Donations may be made to the R&W gift shop in Bldg. 10, Rm. B1C206, or the main R&W store in Bldg. 31, Rm. B1W30. For further information, call Kelly Goka, 496-6061. □

Orioles Baseball Tickets Offered for Sale Apr. 3

R&W has once again obtained two lower box seats (section 35) and four terrace box seats (section 37) to every 1991 Orioles home game—these are great seats. Ticket prices are \$11 per ticket for the terrace box seats, and \$12 per ticket for the lower box seats. And as a bonus, R&W seat holders will receive complimentary admission to the Hit and Run Club, a private dinner club operated by the Orioles.

Tickets will go on sale to R&W members on Wednesday, Apr. 3 at 8 a.m. in the R&W store in Bldg. 31, Rm. B1W30. Because of the great demand for these tickets, each member will be able to purchase only one set of tickets (either the set of four terrace box or the set of two lower box). After 12 noon on Apr. 3, members will be able to purchase additional tickets.

For more information, call the R&W Activities Desk, 496-4600. Remember, you must be an R&W member to buy tickets. Memberships are available at all R&W locations for \$5. □



Dr. Eugene C. Weinbach (second from l) was honored at a recent meeting of the NIH Library advisory committee for his 13 years of generous service as its chairperson. Weinbach is chief of the NIAID Laboratory of Parasitic Diseases. Committee members are appointed to represent the interests of the intramural scientific community in decisions on library policies and practices. Expecting merely to chair his last committee meeting, Weinbach found himself receiving a plaque signed by Dr. J. Edward Rall, NIH deputy director for intramural research, and Dr. Robert A. Whitney Jr., NCRR director. Joining Weinbach are (from l) Whitney, Carolyn Brown, chief of the Library Branch, NCRR; and Dr. Elaine Neale, Laboratory of Developmental Neurobiology, NICHD, incoming committee chairperson.

CITATION*(Continued from Page 1)*

NIH as an intramural scientist in NCI's Laboratory of Tumor Cell Biology. Her work was cited by other authors 7,772 times from 1981 to 1988. Her most-cited paper is "Human T-lymphotrophic retroviruses," published in the British journal *Nature* in 1985.

In addition to receiving NIH research support, Wong-Staal has served as a peer reviewer for DRG's AIDS and related research-3 study section during the June 1989 round of initial review. Also, she is a member of the NIH reviewers reserve, a centralized file of consultant reviewers available to all NIH chartered scientific review committees to assist in the peer review of grant and cooperative agreement applications and contract proposals.

The third most-cited scientist is Dr. Philippa C. Marrack, an immunologist who works in molecular biology at the National Jewish Center for Immunology and Respiratory Medicine in Denver, whose work has been cited 6,462 times. She served as a member of DRG's immunobiology study section from July 1980 to June 1984, and has received research grant support from NIAID.

Three of the 10 scientists, Drs. Mary Jane Osborn of the University of Connecticut Health Center, Joan A. Steitz of Yale University, and Marilyn S. Kozak of the University of Medicine and Dentistry, Newark, New Jersey (UMDNJ), have provided expertise to DRG's molecular biology study section in the initial review of grant applications. Osborn, whose work was cited 4,366 times, is currently a member of the DRG advisory committee. She has also served on the National Advisory General Medical Sciences Council and the Board of Scientific Counselors of NHLBI. She has grant support from NIGMS and NIAID.

Steitz, a biochemist at Yale and a Howard Hughes Medical Institute investigator, has 3,282 citations for her articles. She is an NIGMS-supported MERIT awardee and has received grant support from NCI and NIAID as well. From 1976 to 1980 she served on the NIADDK Board of Scientific Counselors.

Kozak, who studies messenger RNA and eukaryotes (cells with nuclei), has 3,107 citations to her credit. Besides currently serving as a DRG study section member, she is an NIAID and NIGMS-supported investigator at the Robert Wood Johnson Medical School, UMDNJ.

Dr. Ellen S. Vitetta, who helped discover immunotoxins and whose work has been cited 3,098 times, is an NCI MERIT award recipient. Her most-cited paper, "Cell surface immunoglobulin II: Isolation and characterization of immunoglobulin from mouse splenic lymphocytes," was published in the *Journal of Experimental Medicine* and is 19 years old. A



Dr. Mary Jane Osborn of the University of Connecticut Health Center is the fourth most-cited woman in science. She is a member of the DRG advisory committee and has served on the NIGMS Council and NHLBI's Board of Scientific Counselors.

scientist at the University of Texas Southwestern Medical Center, Dallas, she has also received grant support from NIAID and served as a reviewer for DRG.

Dr. Candace B. Pert is a former intramural scientist with the National Institute of Mental Health who in the 1970's helped identify natural pain killers produced by the brain. Her work has been cited 2,918 times. She has received grant support from NCI and NIGMS of NIH, and NIDA of ADAMHA. She was a member of DRG's neurology B study section from 1981 to 1984.

Dr. Marilyn Gist Farquhar, a researcher at the University of California, San Diego, who studies cell biology and experimental pathology, was the ninth most-cited with 2,316 citations. She is an NIDDK-supported MERIT award recipient and also has received support from NCI and NIGMS. She has served on two DRG study sections: cellular biology and

Winter Computer Expo Set

The NIH Winter Computer Expo '91 will be held on Wednesday, Mar. 20 in Wilson Hall, Bldg. 1. The 1-day showing of advanced office automation and graphics will take place from 10 a.m. to 2 p.m.

Vendors from across the region will be on hand displaying the latest in desktop publishing, scientific computing, R&D computing, networking, hardware, software, and much more.

All NIH personnel are invited to attend. There is no registration or fee and refreshments will be served. For more information, call 206-2940. □



Dr. Marilyn Gist Farquhar, the ninth most-cited woman and an NIDDK MERIT Award recipient, has served on two DRG study sections—pathobiochemistry and cellular biology, and physiology.

physiology from 1975 to 1979, and pathobiochemistry from 1986 to 1990.

The remaining two members of the 10 women of science, Drs. Julia Margaret Polak of Hammersmith Hospital and Sheila Sherlock of the Royal Free Hospital, are researchers in London, England, and have not served on NIH peer review nor received NIH grant support.

It is apparent that these women in science have had great impact on the science of other researchers through many avenues. Citation of their published work is one avenue, however, service as NIH peer reviewers and council/board members is another. Publication of research is one of the most competitive aspects of science, but these women have also been successful in receiving NIH research grant support, another highly competitive area for scientists. Their distinguished track record reflects well not only on them, but also on NIH. □

ECS Presents Lecture and Film

The Employee Counseling Services will present a two-part film entitled *Fight for Your Life: Survival Techniques in Living With Cancer* on Thursday, Mar. 21 (part 1) and Thursday, Mar. 28 (part 2) from noon to 1 p.m. in the Little Theater, Bldg. 10.

This is part of the Guest Lecture/Film Series presented by ECS. For further information call 496-3164. □

WOMEN*(Continued from Page 1)*

been doing it in a very powerful way for many, many years," said Coleman-Miller, special assistant for medical affairs to the D.C. public health commissioner. But, she added, problems like high infant mortality rates, dangerous work places, child labor policies, war, poor housing, low wages for women, and alcohol abuse are as prevalent in 1991 as they were in 1891.

"I'm a scientist," Coleman-Miller said. "I understand that when you see something broken, you fix it. So, I have to question—if my list a hundred years ago is the same as my list today, what's wrong? What happened?"

Coleman-Miller, who is also a nationally renowned expert on community and urban violence reduction, discussed successful advocacy by women, highlighting temperance and suffrage movements. Temperance, she noted, was an economically based, and not necessarily morally based, idea started by women whose husbands drank to excess, becoming unfit for work. Because women could not enter the work force in that era,

"The way you define a civilization is that the people who live on the planet with you are constantly and persistently trying to improve the quality of other people's lives."

—Dr. Beverly Coleman-Miller

men were the primary breadwinners and needed to be sober.

"What (history) shows me is that we have always cared," Coleman-Miller said. "We have a legacy of advocacy that is huge and we have always taken the front line."

Still, she said, yesteryear's problems continue to plague today's society. War, public housing, infant mortality—the United States rate equals that of New Delhi, India—and women's wages are still blights in this nation, she said.

"Qualified women do not necessarily reach the same (position or salary) numbers as quickly—or ever—as qualified men," said Coleman-Miller, who said she received her own M.D. degree when she was 31, after a long career as a nurse.

To try to find out why society seems to have stood still since the 19th century, despite advocacy efforts by women, Coleman-Miller said she talked to people who lived through some of the "movements." They had interesting, insightful and enlightening reasons for why attempts to change failed, she said.

"I was in the battle," one elderly woman

told Coleman-Miller, "and I carried signs. But the truth is that, for all our energy, there was another team of women sitting back saying, 'Hey, this isn't very ladylike,' or 'Whoa, pants? I can't wear pants. March? I'm not going to get out there and watch you make fools of yourselves.'"

Coleman-Miller said that for every member of the force of women who were willing to fight on the front line, pushing for rights and change, there was another woman, on an equally strong force, toeing the restrictive lines, holding back progress.

"If everybody got out there and fought the war, we would—as Mike Tyson would say—'kick butt,'" she said. "We would complete the battle because there would be no vector pull in the opposite direction."

Another of Coleman-Miller's interviewees did not feel that a hundred years was a long time to solve the list of problems. Coleman-Miller discarded that theory.

"Be reasonable," she said. "If you don't put a time line on anything, it can't be late, so our history will read something like, 'Well, we got impatient after a hundred years, but that was because we didn't know it took 900 years to solve infant mortality.'" The foremothers met and discussed world crises in parlors, she said, and a lot got done through a process called "civic housekeeping" but, perhaps distractions like television, malls, etc., eventually eroded momentum, slowing the fervor to just half of what it was in the beginning of the movements.

Coleman-Miller concluded with her favorite theory on the unchanged list of problems.

"The way you define a civilization is that the people who live on the planet with you are constantly and persistently trying to improve the quality of other people's lives," she said. "The civilization does it as the natural order. It will always be that the struggle is there and the work to improve the struggle is there . . . Make sure that when you look back on your life, you can say 'You're welcome' to someone who's thanking *you* for fostering change." □

Tenth Annual WISE Conference Planned, Mar. 25-28

The 10th annual Women in Science and Engineering (WISE) Conference will be held Mar. 25-28, at the Westpark Hotel in Rosslyn, Va. WISE is a national training conference for women in federal government service and is dedicated to the promotion of women in scientific careers.

Three outstanding federal women employees will be recognized with special awards. These include the Scientific Achievement, Engineering Achievement and Lifetime Achievement awards.

A luncheon panel "Women's Health Issues" will be featured on Tuesday, Mar. 26. Ann Bavier, representing the NIH Women's Health Office, will lead off the discussions

Deaf Culture Workshop Planned

On Monday, Apr. 1, the Division of Equal Opportunity will sponsor the third in a series of cultural workshops. The presentation will be held in Lipsett Amphitheater, Bldg. 10 from 11:30 a.m. to 1:30 p.m. The workshop, entitled "Deaf and Hearing Cultures: A Comparative Perspective," will be presented by M.J. Bienvenu, cofounder and codirector of the Bicultural Center in Riverdale, Md.

Bienvenu will discuss material, normative, and cognitive aspects of American deaf and



M. J. Bienvenu

hearing cultures, and instances where the two cultures may conflict. She will invite members of the audience to role play scenarios involving both cultures.

A deaf American Sign Language linguist, Bienvenu has travelled throughout the United States and the world, lecturing and conducting workshops and classes on the language and culture of American deaf people.

All NIH employees are invited to attend. English interpretation will be provided. For more information, call Toni Pineau, 496-6301. □

with background information on the new NIH focus on women's health issues. Dr. Sandra Zink of NCI's Division of Cancer Treatment will be panel moderator.

Cost of the 4-day workshop is \$325, which includes all conference activities, workshops and luncheon programs. Reduced fees apply to 1 day only (\$145) or 2 days (\$275). Government training funds qualify for this purpose and may be applied for through the training office. For more information, call Joan Humphries (301) 854-6023, conference organizer, or to obtain a copy of the conference registration form, call the EEO office, 496-6266. □

'MacPoster' Offers Savings Options for Scientists

The DCRT Personal Computing Branch has teamed up with NCRR's Medical Arts and Photography Branch to offer NIH scientists efficient, money-saving ways to produce their own research posters using the Macintosh computer.

Computer-assisted postermaking can be a complex and time-consuming task. But the PCB/MAPB collaboration has resulted in a package of tips and tricks to make the process easier and faster. Speaking to a packed Lipssett Amphitheater audience at the monthly meeting of the Biomedical Research Macintosh Users' Group, PCB's Dr. Dale Graham gave a live, online demonstration of desktop poster design and layout on the Macintosh. Early in her presentation, the options (and savings) for the bench scientist were evident:

- Low-cost (or even no-cost), multiple-piece posters generated entirely on the Macintosh
- Higher cost (\$100+), single-piece integrated posters, using the Macintosh for layout and MAPB to convert a dataset to a negative for a large photographic print
- Traditional (average cost: \$500) MAPB-assisted posters.

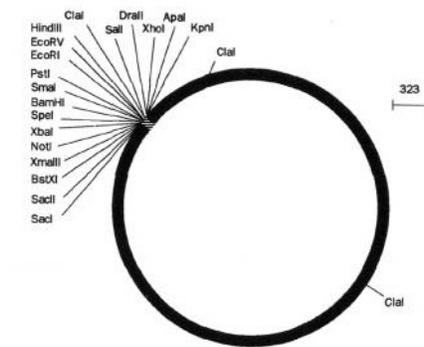
"Generating your own research poster from your laboratory puts your positive personal stamp on the presentation process," says Graham, "and depending on the options you choose, you can save a good deal of money."

In addition to a Macintosh computer and "intermediate" skill in its use, requirements for the new poster development process include: software to create text and graphics; a LaserWriter (or equivalent) for printing proofs or final panels; a "banner" program and dot-matrix printer to produce the poster title.

"Software," explains DCRT's Dr. Brian McLaughlin, a codeveloper of the new poster system, "should probably include packages for word processing and graphics, and—depending on your area of study—programs for statistics and DNA sequence analysis. You'll also want a layout program such as Pagemaker if you intend to put together a one-piece poster."

From the MAPB side of the team, poster expert Patricia Lewis stresses the flexibility of the postermaking system. "We are happy to be involved as much as the presenter needs us," says Lewis, whose reservoir of graphics experience goes back some 20 years. Banner titles, for example, can be produced by MAPB for \$46; alternatively, titles can be generated with a scientist's own equipment and software or with that available in the NIH User Resource Center (by arrangement: Bldg. 31, Rm. B2B47; 496-5025). "A big advantage of the system," according to Lewis, "is the help you can get through both Medical Arts (496-7038) and the Personal Computing

Figure 1. Phagescript vector, showing polylinker site



The Phagescript™ vector was derived from the m13mp19 vector, and contains the T3 promoter [6242 - 6261], the T7 promoter [6388 - 6407], and the phageSK polylinker [6273 - 6380]. This vector includes a beta-galactosidase indicator.

Macintosh-generated poster figure displays an attractive combination of graphics and text.

Branch (496-2282) at any stage of the postermaking process."

Preparing a poster by computer does require an investment in equipment and time, but the skills needed are simply extensions of the everyday computer skills increasingly used to analyze, explore, and communicate scientific data. If you need to brush up on your Macintosh knowledge, several other courses are available through the NIH User Resource Center and DCRT's Computer Center Training Unit (496-2339).

For those who would like to learn more about the new process, a presentation by DCRT's Dr. Peter Munson entitled "Introduction to Postermaking Using the Macintosh" will be given on Apr. 1 from 9:30 to 10:30 a.m. in Bldg. 12A, Rm. B51 (call 496-2339 to reserve a space). A second free DCRT seminar, "Creating Scientific Manuscripts and Posters Using the Macintosh," will be held May 6 from 9 a.m. to 12 noon in Lipssett Amphitheater, Bldg. 10 (no registration required). And if you can't wait to get started, a booklet, *A Guide to Preparing Research Posters Using the Macintosh*, is now available through PCB, MAPB, and the User Resource Center. A similar guide is being planned for users of DOS-based PC's.

Munson, formerly of NICHD, pioneered the Macintosh poster layout process last year. "This is a great way for scientists to harness the graphics power available in the Macintosh," he said. "I was able to go from a concept to a finished poster in only a short time. And I had complete control over the look of the final product." □

Poison Prevention Week, Mar. 17-23

When National Poison Prevention Week was first observed in 1962, the annual death toll among children under 5 years of age, attributed to accidental poisoning, was approximately 450 deaths per year. In 1978, 31 deaths occurred in children under 5 who accidentally swallowed medicines and household chemicals. Although this certainly is a success story, even one death from poisoning is too many. Children are still involved in more than half of poison exposures. The next largest group at risk for accidental poisoning is the elderly.

Here are some good housekeeping rules to follow to prevent poisoning: keep items in original containers; leave the original labels on all products and read the label before using; leave the light on when giving or taking medications; refer to medicine as "medicine," not candy; clean out your medicine cabinet periodically and safely dispose of unneeded and out-of-date medications—consult your pharmacist for additional information on the subject; keep all household chemical products and medicines out of reach and sight of children, preferably locked up when not in use; store medicines separately from household products.

Find out which poison center serves your community and get the telephone number from the inside front cover of your phone book. There are regional poison centers certified by the American Association of Poison Control Centers. These regional centers offer a comprehensive state-of-the-art poisoning consultation service to guide you through poisoning emergencies at no charge. The centers are staffed with highly trained pharmacists, nurses, medical toxicologists and a network of medical consultants. Poison centers manage 73 percent of reported poisonings at home, preventing countless unnecessary emergency department visits and hospitalizations. When guided by a regional poison center, this home management is entirely safe, in addition to being cost effective.

There are two 24-hour per day regional centers in this area: National Capital Poison Center, Georgetown University Hospital, (202) 625-3333, and Maryland Poison Center, Baltimore, (800) 492-2414 (MD only).

In cooperation with Poison Prevention Week, the outpatient pharmacy department in the Clinical Center is offering Ipecac syrup to all NIH patients and/or employees with children and parents of NIH pediatric patients. Senior citizens are also included in this offer. In addition, there are pamphlets on poisoning and the proper procedure for administering Ipecac syrup. The pharmacists are pleased to discuss any poison information. □

Blood Bank Holds Open House

The Clinical Center's department of transfusion medicine, better known to many employees as the Blood Bank, will hold an open house from 1 to 5 p.m. at its new headquarters on Monday, Apr. 8.

The festivities will begin with a brief ceremony in Lipsett Amphitheater, Bldg. 10, at which several speakers will offer remarks. The scene will then shift to the entrance to the Blood Bank, where a tree-planting ceremony will commemorate the department's new location.

Next on the agenda will be tours of the new facility, which is located on the first floor of the CC, on the west side of the hospital nearest the Cloister. Refreshments will follow the tours.

All employees are invited to participate in the open house. For more information, call 496-4506. □



Dr. Victor A. McKusick (seated) meets with medical genetics clinical elective students (from l) Lester Yim, St. Louis; Christopher M. Haqq, Harvard; Patricia L. Judson, Minnesota; M. Jason Sanders, Houston-Texas; Brett M. Baker, Maryland; Barbara A. Dill, Vermont; Robert Pretzlaff, Wayne State; and Cary D. Alberstone, Albany.

Med Students Meet McKusick, 'Father of Medical Genetics'

For medical genetics elective students, Feb. 13 was a chance to meet "the father of medical genetics," Dr. Victor McKusick, university professor of medical genetics at Johns Hopkins University Medical Center.

McKusick was a guest of the Interinstitute Medical Genetics Fellowship Program at NIH, which sponsors an ongoing lecture series on current topics in medical genetics. McKusick spoke on "The Status of the Human Gene Map," an interest he has held for more than 30 years.

During lunch with McKusick, students heard, firsthand, stories of the first autosomal gene to be mapped to chromosome 1 and of field trips to the Amish communities in Lancaster County, Pa., to study families with rare

recessive disorders.

In his lecture, McKusick traced the history of gene mapping and methods used to map and sequence new genes. Particularly interested in the mapping of genetic diseases, McKusick discussed what he terms "the morbid anatomy of the human genome."

Eight senior medical students from across the country participated in this year's medical genetics elective, which includes a core curriculum and genetics clinics at NIH and other metropolitan area genetics centers. Each student also participates in a clinical or laboratory-based research project supervised by senior investigators within the NIH community. □

Women's Health Seminar Series Concludes, Apr. 3

The fourth session in the Women's Health and Behavior seminar series, "Women's Quality of Life: The Costs and Benefits of Living Longer," will be held Apr. 3 at 3:30 p.m. in Lipsett Amphitheater, Bldg. 10. Seminar IV is a multidisciplinary examination of quality of life, social support and the economic factors that characterize women's longer lives.

Dr. M. Lawton Powell, a recognized expert on the quality of life and its health implications, will introduce the session. Panel speakers include Dr. Linda George of Georgetown University, who will speak on the relationship of social support to women's caregiving responsibilities; Dr. Diane Rowland of Johns Hopkins University, who will discuss aging women's health needs and

sociodemographics; and Dr. Henry Aaron of the Brookings Institution, who will discuss the costs of meeting aging women's health needs.

Victor Cohn, *Washington Post* health writer, will comment and Dr. Matina Horner of Radcliffe College will provide an overview. It is anticipated that there will be additional commentary on the role of this seminar series in suggesting an agenda for research on women and health in the coming century.

Two CME credits are available for documented attendance at this seminar. Sign language interpretation will be provided. For reasonable accommodation needs, contact program chair, Dr. Joan Rittenhouse, 443-8923. □



Gladys M. Whitted of NIH's Division of Procurement recently received an advocacy award from the White House Conference on Small Business, Minority Delegates' Caucus Inc. Whitted received the award for "her tireless efforts in bringing small and minority businesses into the procurement mainstream of the National Institutes of Health."

Golf League Season Planned

The NIH R&W 9-Hole Golf League is preparing for its 1991 season. This league accommodates all levels of golfers and offers both competitive and noncompetitive play. Play is once a week after work at the Falls Road Golf course. The season begins the first week of May and ends Labor Day. For more information or for registration forms, call Anne Marie Gillen, 496-5214. Registration closes Apr. 12. □

Orientation to Extramural NIH Activities Offered, June 3-4

The Office of Health Scientist Administrator Development Programs (HSADP) will be presenting an NIH orientation course entitled "Fundamentals of NIH Extramural Activities," on June 3-4 in Bldg. 1, Wilson Hall. The course starts at 8:30 a.m. June 3 and ends at 5 p.m. on June 4, with registration at 8 a.m. each day.

The course will include an overview of the types of award mechanisms, the grant referral and review processes, program administration, and the fiscal management of grants.

The number of participants will be limited to approximately 60 people. Priority will be given to program and review staff at all grade levels who are new (6-9 months) to the extramural NIH.

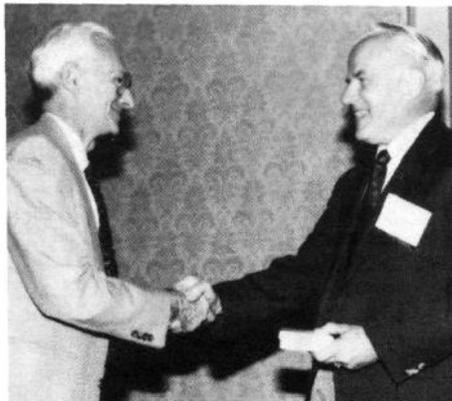
Course applicants (including those who are PHS commissioned officers) are to submit an HHS-350 form (Training, Nomination and Authorization) through appropriate ICD channels to the HSADP office, Bldg. 31, Rm. 5B35. In item 10, please list your complete office address, not your home address; item 14—"no cost"; item 18, send vendor's copy to: HSADP Office, Bldg. 31, Rm. 5B35; item 20—A—"8", B—"8", C—"1", D—"N/A"; please be very specific in items 16 and 17 and indicate how long you have been in the NIH extramural area; item 21—"N/A" and item 22—"9998". All other instructions are on the back of the HHS-350.

To be considered, applications must be received in the HSADP office no later than COB Apr. 15. Merely submitting an application to personnel, no matter how early, does not assure its reaching the HSADP office. It is the applicant's responsibility to see that the HSADP office receives the application by the deadline date. Applications received after the deadline will be returned without further consideration. Each applicant will be informed of the decision concerning his/her application. No one will be admitted to the course without the memo of selection signed by the codirectors.

Questions about this course may be directed to the HSADP office, 496-1736. □

Tennis Lessons Offered

The NIH R&W Tennis Club is again sponsoring group lessons to be given at the NIH courts after work. Beginning Apr. 1, each group will meet for an hour on Mondays and Wednesdays for a total of 6 lessons. The U.S.P.T.A.-certified instructor is Ed Wellner, and the fee of \$45 is to be paid to the NIH Tennis Club. He can be reached at 496-5195. □



Dr. Willy Burgdorfer (r) was recently presented with the Walter Reed Medal of the American Society of Tropical Medicine and Hygiene by Dr. John David. Burgdorfer, scientist emeritus at NIAID's Rocky Mountain Laboratories in Hamilton, Mont., received the award for his scientific contributions during 35 years with NIAID; his pioneering work in arbovirology, rickettsiology, and relapsing fever spirochetes; and his discovery of the spirochete that causes Lyme disease, Borrelia burgdorferi. The award was presented during the 39th annual meeting of the society and is given every third year for outstanding contributions to tropical medicine.

Chaos, Fractals in Medicine Subject of Lecture, Mar. 22

The Interinstitute Chaos Council's third "listener-friendly" talk—"Chaos and Fractals in Physiology and Medicine"—will be presented Mar. 22 at 3 p.m. in Bldg. 10, Rm. 2C310 by Dr. Ary Goldberger, associate professor of medicine at Harvard Medical School and director of electrocardiography at Beth Israel Hospital.

Goldberger and his colleagues have helped pioneer the application of fractals and chaos theory to physiology and bedside medicine. His talk will focus on three related areas: the ubiquity of nonlinear dynamics in physiology, the application of fractals and chaos to healthy structure and function, and measuring the loss of chaos or complexity that may occur with aging, drug toxicity and prior to sudden cardiac death.

For more information, call Kathy Madden, 402-1404. □

Study Subjects To Be Paid

You and two friends can each earn \$470 for participating in a study of commonly prescribed drugs. Requires 6 hours during the day, 1 day a week, for a total of 7 weeks. Each member must be between 21 and 50 years old, in good health, and not active-duty military. Call 295-0972 for more information. □

CRISP, Thesaurus Training Offered

The "Introduction to CRISP" is now a half-day hands-on course that introduces students to the basic characteristics of the CRISP (Computer Retrieval of Information on Scientific Projects) database including content, format, and search/retrieval methods stressing the use of SCRISP (a user-friendly access program). Course dates are Apr. 9, May 7, June 11 and Aug. 13.

The "Advanced CRISP," a half-day course that expands the concepts presented in the CRISP introductory course, is designed to acquaint students with more advanced search features (e.g., batch queries using job control language). Students are encouraged to bring their own queries. Course dates are May 7 and Aug. 13.

The "New CRISP Thesaurus" course introduces students to the FY 1991 CRISP thesaurus. The FY 1991 edition has been significantly restructured and now contains a permuted index and hierarchical subject tree structure. The CRISP thesaurus is a controlled vocabulary used to assign scientific indexing terms for the CRISP database, and to subsequently retrieve subject-related data. Course dates are Apr. 9, June 11 and Sept. 11. All courses will be held at Executive Plaza South (classroom 7).

To register, complete and submit HHS-350 through your ICD personnel office. Vendor copy 2 should be sent to the Division of Research Grants, research documentation section, Rm. 148, Westwood Bldg. Registration deadlines for the April and May courses are Mar. 20 and Apr. 9 respectively. For more information call 496-7543 or consult "Enter Training" on Wylbur for course details. □

OSIA Chapter Sponsors Events

The NIH Lodge of the Order Sons of Italy in America (OSIA) is sponsoring activities in celebration of the Columbus Quincentennial on Mar. 26 and 29. The Rockville Concert Band will give a concert on Tuesday, Mar. 26, at 8 p.m. in Masur Auditorium, Bldg. 10. The free concert will highlight works by Italian and Spanish composers.

A scientific presentation by Dr. Soldano Ferrone, professor and chairman of the department of microbiology and immunology, New York Medical College, will be held Friday, Mar. 29, at 11:30 a.m., Conf. Rm. 4, Bldg. 31. Ferrone, who received the Alexander Von Humboldt Award in 1988, will discuss: "Active specific immunotherapy with anti-idiotypic monoclonal antibodies: Association between humoral immunity and prolongation of survival in patients with stage IV melanoma." Everyone is invited to attend both events. □



TRAINING TIPS

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

Courses and Programs Starting Dates

Management and Supervisory 496-6371

Creativity with and through Groups	4/17
Hands-on Animal Rodent Techniques	4/24
Working with Personal Differences MBTI	5/1
Presidential Operations Workshop	5/6
Interacting with Difficult Employees	5/7
Managing Workforce Diversity: Skills for Utilizing Differences	5/8
Managing Stress	5/14
Efficient Reading	5/29

Personal Computing Training 496-6211

Welcome to Macintosh	5/3
Intro to WordPerfect (Mac)	5/6
Intro to Microsoft Word (Mac)	6/5
Excel Level 1	5/9
Excel Level 2	5/16
FoxBase (Mac) Level 1	5/13
Hypercard Programming: Level 1	5/7
Intro to Personal Computing for New Users	5/1
PC Keyboarding: Intro	5/3
WordPerfect 5.1	5/6
Intro to DOS	5/6
Harvard Graphics, Rel. 2.3	5/1
DBase III: Intro	5/8
Lotus 1-2-3, Rel. 2.2 Intro	5/13

Office Operations and Administrative 496-6211

Effective Guide to Good Grammar	4/22
Introduction to Working at NIH	4/29
Working with Personal Differences MBTI	5/15

User Resources Center 496-5025

Self study hands-on Personal Computer tutorial courses are available to NIH employees at no cost.

Training Survey To Be Conducted

The NIH Training Center will be conducting an NIH-wide Training Needs Survey (TNS) during March. The purpose is to identify training needs in relation to existing and proposed training courses, as well as to identify new program areas where training will be needed. Survey participants will be randomly selected from the NIH population and all occupational levels and all ICDs will be included.

It is important that each recipient of the survey form complete and return it. The more responses received, the more accurate the results will be in assessing the training needs of NIH employees. In addition, employees who complete and return the TNS will have a chance to win a free training course at the NIH Training Center. One drawing will be held before the deadline date of return and the final drawing after the deadline date.

All information gathered from the survey will be strictly confidential. Only a summary of the results will be distributed to each ICD. If you have any questions, please call the NIH Training Center, 496-2146. □



Margo Bradford (l), day manager of the Children's Inn at NIH, accepts a check for nearly \$1,000 from organizers of last June's Camp Fantastic/Children's Inn barbecue. They include (from l) Kelly Goka and Ruth Sragner of R&W and volunteers William Stancliff and Myra Eckstine.

Conference Planned on Genetics, Biotechnology, Apr. 18-20

A conference on "Biotechnology and the Diagnosis of Genetic Disease," will be held Apr. 18-20 at the Crystal Gateway Marriott in Arlington, Va., cosponsored by NCHGR and NICHD.

There will also be a forum on technical, regulatory and societal issues held as part of the conference. Georgetown University Medical Center's Program on Technology and Health Care will sponsor this portion of the meeting.

Because NIH is a cosponsor, NIH employees will be able to attend the 3-day conference for \$100 (regularly \$285). Those wishing to attend the Saturday session (on societal and economic issues, plus a panel summary) only may do so for \$10.

For more information, call Susann Wilkinson, (202) 687-5391. □

Parklawn Run/Walk, Apr. 26

The annual 5-mile Parklawn Classic run and 2.5-mile Health-Walk will be held on Apr. 26 at 11 a.m. NIH'ers and other participants in outlying buildings will be bused to Parklawn on the morning of the event. Trophies and medals will be awarded to the top finishers of the race while ribbons will be issued to all walkers who go the distance.

Commemorative T-shirts will be given to all runners who finish and walkers may purchase the T-shirts.

Registration forms for both events are available at R&W activity desks and stores.

Volunteers are also needed and may sign up to help register participants, control traffic, hand out awards and ribbons, staff water stations, serve as radio communication contacts and help with the race.

For up-to-date information on the Parklawn run/walk, call the Classic hotline, 443-5350. □



The NIH chapter of Blacks in Government (BIG) recently installed its 1991 officers. BIG's new leaders include (seated, from l) David Strong, first vice president; Dr. James Moone, president; Albert Parrish, second vice president; (standing, from l) Albert Harris, regional representative; Gladys Whitted, program and planning committee chair; Shirl Brinson, fundraising cochair; Otis Watts, regional representative; Irene Douglas, treasurer; and Cleveland Josey, fundraising chair.

NEI's Joram Piatigorsky To Give Mider Lecture

Dr. Joram Piatigorsky, chief of NEI's Laboratory of Molecular and Developmental Biology, will deliver the G. Burroughs Mider Lecture Apr. 3 at 3 p.m. in Masur Auditorium, Bldg. 10. His topic is "Gene Sharing: Lens Crystallins, Enzymes, and Stress Proteins."

For decades, researchers have been studying families of crystallins, which are the structural proteins responsible for the transparency of the eye lens. Crystallins are a richly diverse group of proteins, with considerable differences in composition among vertebrate species.

Although the first crystallins to be identified are expressed (produced) only in the lens, Piatigorsky and researchers in his laboratory discovered that many of these structural crystallins are closely related or identical to metabolic enzymes. While these enzyme-crystallins are also expressed mainly in the lens, lower amounts are found in non-lens tissues where they have nonstructural functions. Piatigorsky has given the name "gene sharing" to this use of one gene for the production of a protein with two entirely different functions.

In search of a common basis for the expression of such large amounts of these proteins in the lens, Piatigorsky and his colleagues have identified numerous new enzyme-crystallins and have isolated their genes in animals ranging from jellyfish to human. During evolution, certain enzymes were recruited to become structural crystallins. Some of these enzymes retain their enzymatic activity in the lens while others lose activity, presumably because of changes after the gene expresses the protein product. Piatigorsky believes that enzyme-crystallins have taken a pathway in molecular evolution that differs from that of gene duplication, in which genes make copies of themselves that mutate and acquire new functions. In gene sharing, crystallins acquire new functions either before or instead of gene duplication and modification. Thus, the recruitment of crystallins during evolution occurred not by changes to the protein, but rather by changes in regulation of gene expression.

According to Piatigorsky, the multiple functions of crystallins and their recruitment as a result of changes in gene expression may have parallels in other proteins. "Given the pragmatism of molecular evolution, gene sharing may well be more common than has been realized," he said.

As a result of extensive research on crystallin gene expression, the NEI scientists have identified a variety of DNA sequences that affect the activity of the gene. To study whether these control elements can induce expression of a foreign gene—for example, a bacterial gene—in the lens, the researchers



Dr. Joram Piatigorsky

attached crystallin regulatory sequences to various foreign genes and bred the hybrid genes into mice. The researchers found that the hybrid genes are expressed exclusively in the mouse lens. These were the first genetic engineering experiments done in the visual system.

Piatigorsky received his A.B. in biology from Harvard. After completing his Ph.D. in developmental biology from the California Institute of Technology in 1967, he joined the experimental embryology section of NINDS. There he began the study of the ocular lens under the microdissection pioneer, Dr. Alfred (Chris) Coulombre. Piatigorsky continued his lens research in the laboratory of Dr. Philip Leder at NICHD until 1981, when NEI invited him to direct the first laboratory dedicated exclusively to the molecular and developmental biology of the eye.

Piatigorsky organized the first international symposium on molecular biology of the eye, which brought together researchers from 20 countries in 1988. As chairman of the department of biology and genetics of the Foundation for Advanced Education in the Sciences, he was instrumental in organizing and teaching graduate courses in molecular genetics and developmental biology for 14 years. He has been a trustee of the Association for Research in Vision and Ophthalmology since 1986 and currently serves as vice president.

Among the many honors and awards that Piatigorsky has received are the NIH Director's Award, 1978; Alcon Research Award, 1985; Friedenwald Award from the Association for Research in Vision and Ophthalmology, 1986; and the first Hans Bloemendal Lecture Award in Nijmegen, The Netherlands, in 1988. He has almost 150 scientific publications to his credit.—Joyce Doherty □

Research Festival Topics Set

The 1991 NIH Research Festival will be held Monday, Sept. 23 and Tuesday, Sept. 24. The topics for the symposia will be: new molecular approaches to therapy; cellular proliferation; molecular developmental biology; molecular pathogenesis of infectious disease.

Numerous workshops are also being organized. Poster sessions will be held Monday evening, Sept. 23 and Tuesday lunchtime, Sept. 24.

The research festival committee is chaired this year by Dr. Steven Paul, director of NIMH's Intramural Research Program. The committee invites submission of poster topics by all NIH, NIMH, NIAAA and FDA staff from the Bethesda campus. The poster session application form will be distributed desk-to-desk soon. Final deadline for the applications will be May 24. For further information call the NIH Visitor Information Center, 496-1776.

Once again the Technical Sales Association (TSA) will be hosting an evening picnic Tuesday, Sept. 24. Thursday, Sept. 26 and Friday, Sept. 27 have been reserved for the TSA scientific equipment show in the Research Festival tents. The tents will again be located in parking lot 10D. □



Dr. Claude Lenfant (l), NHLBI director, presented the Department of Army's Outstanding Civilian Service Medal to Glen Bennett, coordinator of the institute's Smoking Education Program. Bennett developed and conducted a series of smoking cessation training programs for Army physicians based on NHLBI's Clinical Opportunities for Smoking Intervention.

Research Volunteers Sought

Earn up to \$520 for participating in a study of commonly prescribed drugs. Requires 10 to 15 minutes in the morning between 8:30 and 10 during an 8-week period. Must be between 21 and 50 years old, in good health, and not active-duty military. Call 295-0972 for more information. □