

The NIH Record

Estrogen Not a Cure-all

Menopause Update Highlights Hormone Therapy

By Carla Garnett

Understanding and dealing with the uncertainties of menopause are probably two of the most disquieting, if inevitable, challenges a woman faces. Explaining and treating the symptoms of menopause can be equally challenging for the woman's physician.

Dr. Florence Haseltine, director of the Center for Population Research at NICHD, discussed the newest advances in menopause research in her lecture, "The Menopause: An Update," at a recent Clinical Center Grand Rounds.

Menopause, the cessation of the monthly menstrual cycle, disrupts hormone balance as the ovaries fail to produce estrogen.

"The resulting infertility and loss of ovarian hormones is the first and immediate outcome of menopause," said Haseltine.

"Both the physiologic and normal biology of the ovary and the organs that are subsequently involved are relevant to the understanding of menopause."

Stressing the importance of determining

standards for normal menopause symptoms and treatments, Haseltine began by sharing the questions that many menopause researchers now are asking:

"What is really important . . . what we have to ask is: What is normal? And are there things that we lose as we lose our ovarian function that help us with our health before menopause . . . or that cause us trouble later on?"

Haseltine reviewed four major milestones in menopause—its acknowledgement in the 18th century, the identification of estrogen in 1929, the development and administration of estrogen replacement therapy (ERT) in the 1950's and the link of ERT to endometrial cancer in the 1970's.

"I'd like to give a molecular-biological presentation today but I won't be able to," admitted Haseltine, "because recently the most interesting thing about menopause is the emphasis now placed on it."

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Another Reason To Quit Smoking Discovered

By Jan Ehrman

Investigators at the NIA Gerontology Research Center (GRC) in Baltimore have discovered yet another reason to quit smoking. Results of a large-scale study show that cigarette smoking produces a dangerous distribution of body fat, primarily an increase in fat around the waist, which magnifies risk for heart and other diseases. Even though smokers who quit often gain weight, it occurs mainly around the hips, a relatively benign region in terms of health effects, according to a recent report in the *Journal of the American Medical Association* (JAMA).

Hundreds of worldwide studies provide convincing evidence of the harmful effects of cigarette smoking, which takes a major toll on the heart, lungs, blood vessels and other organ systems. Smoking places male cigarette smokers at 22 times the risk for lung cancer, according to U.S. surgeon general Dr. C. Everett Koop. In his latest report on smoking and health, Koop pointed out that more than one of every six deaths in the nation can be traced

(See **SMOKING**, Page 2)



Dr. James B. Wyngaarden, NIH director since Apr. 30, 1982, announced his resignation on Apr. 20 at a meeting of top staff. He has not announced any plans for the future but has indicated that his remaining days will emphasize the importance of research training. He will leave office about Aug. 1 to make room for a new director to be appointed by President Bush. The new DHHS assistant secretary for health, Dr. James O. Mason (former head of CDC) will head the search committee for the new director. (Photo taken at Employee Recognition Day in September 1987.)

Gala Dinner Benefits Children's Inn at NIH

More than \$500,000 was raised to endow the Children's Inn at NIH recently at a dinner organized by congressional wives and attended by corporate sponsors and politicians.

The dinner, the first of several to be held around the country to raise some \$2.7 million in operating expenses for the inn, was underwritten by Lederle Laboratories.

Currently under construction on the north side of the NIH campus, the Children's Inn will be a home-away-from-home for up to 36 pediatric patients and their families. The 32,000-square-foot home is being built courtesy of a \$3.5 million gift from Merck & Co. Inc., a research intensive pharmaceutical firm.

"The Children's Inn project is an important example of private sector response to a public sector need," said David Bethune, president of Lederle and chairman of the dinner. "At this time in history, with budget deficits putting a cap on healthcare spending, the pharmaceutical industry has the unique opportunity to make a difference. Lederle is proud to join this effort because children are our future."

Held at the Departmental Auditorium on Constitution Ave., the black-tie dinner attracted several hundred guests including former Speaker of the House of Representatives Thomas P. "Tip" O'Neill, Sen. Bill Bradley



Katie White, a cancer patient at NIH since 1983, with her father, Carroll, enjoys the fundraising dinner held to benefit Children's Inn. (Photo: Marc Stern)

of New Jersey, Rep. Henry Waxman of California, as well as actress Lynda Carter, actor David Birney and humorist Mark Russell.

Beside Lederle and Merck, other major corporate sponsors of the Children's Inn include Textron, Ocean Spray Cranberries, General Dynamics Corp., USX Corp., State Farm Insurance Cos., and the Washington Post Cos.

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SMOKING INFLUENCES BODY FAT PLACEMENT

(Continued from Page 1)

to cigarettes.

Although about 1.3 million people "kick the habit" each year, some 30 percent of the adult population continues to smoke. Approximately 1 million people start smoking each year.

One reason some smokers refuse to quit is weight control. Evidence shows that many former smokers experience progressive weight gain after quitting. Accordingly, it comes as little surprise that smokers, as a group, are relatively lean.

This latest research, conducted by GRC scientists Dr. Hiroshi Shimokata, Denis C. Muller, and NIA's clinical director, Dr. Reubin Andres, involved an in-depth analysis of the smoking histories and body measurements on 1,122 men, ages 19 to 102 years, all volunteers in the institute's Baltimore Longitudinal Study of Aging. Subjects visited the GRC once every year or two to undergo a battery of physiological and behavioral tests.

The GRC investigators used waist and hip circumferences and the waist-hip ratio (WHR) as parameters to assess body fat. All measurements were taken with a standard, flexible, metal-tape measure while volunteers stood. To adjust for height, weight was corrected by computing the body mass index (BMI), and the weight divided by the square of the height. An adjustment was also allowed for age.

The findings of the study have unexpected and important clinical implications for the smoking public. While total weight and BMI proved lower among smokers when compared to nonsmokers, the circumference of the waist and the WHR in smokers was greater in cigarette smokers than nonsmokers. This variance increased proportionately with the actual number of cigarettes smoked daily, according to the JAMA report.

Further, the scientists reported that despite a modest increase in weight among smokers who quit, the increase in WHR was less than would have been anticipated. Those participants who started smoking during the course of the study experienced a decline in total body weight (on the average) but their WHR increased. Thus, cigarette smoking influenced the placement of fat in the body.

Previous studies have demonstrated that when body fat accumulates primarily around the waist, individuals greatly increase their risk for developing cardiovascular disease. In addition, experts have noted a marked propensity for developing diabetes when fat deposition is centered on the upper torso, that is, when the waist-hip ratio is high.

The investigators conclude that people who continue to smoke in order to control their body weight are making a doubly bad bargain with their health. □



At a 9:30 a.m. ceremony on May 10, Bldg. 31 will be formally renamed in honor of Rep. Claude D. Pepper of Florida. Lettering for the name change is already in place and a plaque honoring Pepper was to be placed near the building's cornerstone at the end of April. All 535 members of the House and Senate have been invited to the event.

Sun, Skin Conference, May 8-10

NIH will hold a Consensus Development Conference on "Sunlight, Ultraviolet Radiation, and the Skin," May 8-10 in Masur Auditorium, Clinical Center. To register, contact Andrea Manning, Prospect Associates, Suite 500, 1801 Rockville Pike, Rockville, MD 20852, 468-MEET. There is no charge for registration. □

The NIH Record

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

Editor
Richard McManus

Staff Writers
Anne Barber
Carla Garnett

Editorial Assistant
Marilyn Berman

Staff Correspondents:
CC, Elyn Pollack
DCRT, Christine Pennella
DRG, Sue Meadows
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Distinguished Scholar Seminar

The National Center for Nursing Research is presenting its second Distinguished Scholar Seminar on Thursday, May 18 at 4:30 p.m. in Masur Auditorium. Dr. Sue K. Donaldson will speak about inositol 1,4,5-trisphosphate and skeletal muscle excitation-contraction coupling.

Donaldson holds professorships in the schools of nursing and medicine at the University of Minnesota and is chairperson of the NIH physiology study section. The National Institute of Arthritis and Musculoskeletal and Skin Diseases is cosponsoring the event.

Basic research on excitation-contraction coupling provides a framework for studying clinically relevant processes such as muscle fatigue and clinical management of persons with skeletal muscle disease such as malignant hyperthermia.

A reception will immediately follow the seminar.



Dr. Sue K. Donaldson

Alzheimer Group Seeks Policies for Victims' Care

By Claire McCullough

More than 160 members of the Alzheimer's Association assembled in Washington, D.C., last month to launch an attack on what has been called the "disease of the century." At the association's first national public policy forum, Alzheimer's disease family members, and federal, state and local government officials met to discuss the long-term health needs of the nation's 4 million Alzheimer victims and their caregivers. During the meeting, representatives of 35 states met with their congressmen to advocate laws for the care of Alzheimer patients.

Alzheimer's disease (AD) is a progressive degeneration of the brain that primarily affects persons over the age of 65. The disorder robs individuals of memory and eventually renders them totally incapable of self-care. According to association chairman Richard Gehring, "With an average of three family members involved in the care of an Alzheimer patient, the disease really affects closer to 12 million Americans."

In the absence of other physical ailments, the victim may survive 20 years or longer, imposing a tremendous burden on the caregivers. "By the year 2030," Gehring continued, "over 7 million persons will be afflicted with Alzheimer's disease. All of these persons are alive today. Many will be from the baby boom generation."

Because 70-80 percent of care is provided by family members, the association is calling for an increased federal commitment to research and health care services. Specific levels were recommended in the association's 1989 National Program to Conquer Alzheimer's Disease.

Dr. John Blass, a dementia researcher who chaired a federal advisory panel on AD, explained, "We have the technology to conquer this disease and to find treatments in the near future to greatly improve the quality of life, if we can increase funding."

Blass noted that only a small fraction of approved grants ever receive funding, leaving "much fertile research unfunded." He explained that although AD is the fourth leading killer of older Americans, funding for research is projected to be \$139 million, compared to \$610 million for heart disease and \$1.5 billion for cancer.

The panel report calls for \$300 million per year for AD research, with 10 percent going to support 15 Alzheimer's Disease Research Centers. Such facilities house research teams specializing in basic biomedical research and in the diagnosis and treatment of Alzheimer's disease.

The panel also made specific recommenda-



At a congressional reception following the recent public policy forum on Alzheimer's disease, NIA staff members had an opportunity to chat informally with the new HHS secretary, Dr. Louis H. Sullivan (r). Greeting him are Marian Emr, NIA public information officer, and Dr. Zaven Khachaturian, associate director of the NIA Neuroscience and Neuropsychology of Aging Program.

tions on improving access to health services and methods of financing long-term care. The report urges that research on health services be increased by at least \$25 million per year. Of this, \$10 million should be used to evaluate comprehensive health services demonstration projects. To accomplish this, the panel calls for the establishment of up to 10 health services research centers to identify services that effectively meet the needs of AD patients and their families.

Dr. Gene Cohen, deputy director of the National Institute on Aging and executive secretary of the advisory panel, said the panel has a 4-year term, the last 3 years of which will be used to monitor the implementation of its recommendations. □

Lasker Donates Cherry Trees

One dozen autumn cherry trees are to be planted soon on the grounds of the Mary Woodard Lasker Center (the Cloister). Donated last month by the Princeton Nurseries of New Jersey in Lasker's name, the trees will be planted jointly by landscapers from NIH and the Howard Hughes Medical Institute.

Lasker, who recently received a commendation medal from President Bush for her contributions to the medical community, is a longtime medical research lobbyist and philanthropist. □

Aaronson Honored in West Germany

Dr. Stuart A. Aaronson, chief of the Laboratory of Cellular and Molecular Biology, NCI, was honored recently in West Germany with a share in the 1989 Paul Ehrlich and Ludwig Darmstaedter Award.

Two other investigators, an American and a European, split a \$45,000 prize with Aaronson; all received medals.

The award is given each year in honor of German medical researcher and Nobel laureate Paul Ehrlich, who is known for his work on "magic bullets," drugs that selectively attack infectious organisms, without harming the host organism. □

Hayfever/Allergy Volunteers Wanted

The Laboratory of Allergenic Products, Center for Biologics Evaluation and Research, FDA, is seeking volunteers with spring and/or fall hayfever, or allergies to dust, animals, pollens, molds or food to participate in studies to evaluate the potency of allergenic extracts. Individuals known to be allergic to peanuts are especially needed. Volunteers will be asked to complete a questionnaire. Selected subjects will undergo skin testing with commercial and/or investigational allergenic extracts.

Interested individuals should send a request for a questionnaire to Dr. Paul C. Turkeltaub or Marialice White, Bldg. 29, Rm. 201. □

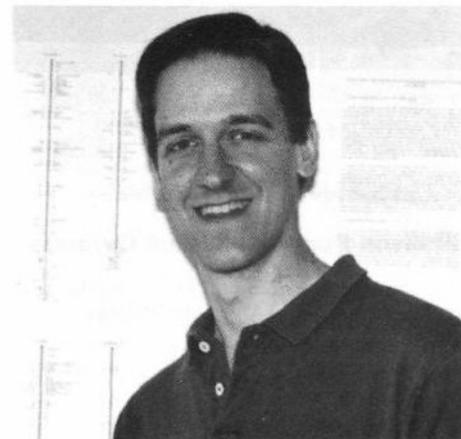
Scientist at FCRF Receives Markey Scholar Award

Dr. David M. Kingsley recently received a Lucille P. Markey Scholar Award in Biomedical Science for 1989. He is a postdoctoral researcher in the Mammalian Genetics Laboratory of the Basic Research Program at the NCI-Frederick Cancer Research Facility (FCRF). The award will support his work on the isolation and sequencing of the short-ear gene of the mouse.

The short-ear gene has widespread effects on the size, shape and position of skeletal elements and soft tissues in mice. It is also required for normal repair of bone fractures in adult animals. "Study of this gene," said Kingsley, "may help identify the signals that control the proliferation and modeling of skeletal tissues during development."

The strategy used to isolate the gene will take advantage of decades of previous genetic studies of a small segment of mouse chromo-

some 9. This area, called the dilute/short-ear region, contains a number of other genes with important effects on mice development and behavior. "Isolation of the short-ear gene should provide a new molecular entry point for future studies of these neighboring genes as well," said Kingsley.



Dr. David M. Kingsley

Kingsley received his B.S. degree from Yale University in 1981, and his Ph.D. from the Massachusetts Institute of Technology in 1986. He is the first postdoctoral researcher at FCRF to receive a Markey Award. He began his postdoctoral work at the Mammalian Genetics Laboratory in August 1987. This laboratory is one of several that make up the Basic Research Program at NCI-FCRF.

Kingsley will receive a stipend of \$30,000 in his first postdoctoral year as a Markey scholar beginning in July 1989 and an additional \$33,000 in his second year. He then will be eligible for 5 years of research and salary support at an academic institution, with

an initial salary of \$40,000 in his first faculty year at an academic institution, increasing by \$5,000 per faculty year through the fifth year.

In addition to salary support, Markey scholars receive research allowances of \$60,000 in the first faculty year, \$50,000 in the second and third years, to \$25,000 in the fourth year, and to \$15,000 in the fifth faculty year. The research allowance may be used for consumable supplies, equipment, personnel and travel to scientific meetings.

The Lucille P. Markey Scholar Awards were established in 1984 to enhance the scientific development and productivity of promising men and women planning research careers in the biomedical sciences. It is expected that by the end of the award period the scholars will be able to compete effectively for grant support from NIH, the National Science Foundation and other extramural sources.

—Philippe Chemaly Jr. □

Orioles Bus Trips

If you haven't been to Memorial Stadium this year to see the new and improved Baltimore Orioles play, then join us for a Friday night game. We'll provide the transportation and the tickets, you bring the enthusiasm!

Friday, June 16 Orioles vs. Oakland
Bus leaves NIH Bldg. 31C at 5:30 p.m.
Cost—\$18/person

Friday, June 30 Orioles vs. Detroit
Bus leaves NIH Bldg. 31 C at 5:30 p.m.
Cost—\$18/person

A special offer for diehard Orioles fans: come to both games for only \$34!

Reserve your place in the stands today at the R&W Activities Desk, 496-4600. Payment due upon reservation. Bus trip will be nonsmoking. Reservations should be made at least 1 week in advance. □

R&W Holds Philadelphia Tour

Join R&W as we tour the most historic square mile in the United States, including such sites as the Liberty Bell, Independence Hall, Congress Hall, Franklin Court, Betsy Ross' House and more. After the tour, we'll head to Market St. where you can shop, browse or do as you please. Date for the trip is Saturday, June 3. Bus will leave NIH Bldg. 31C at 8 a.m. and return at approximately 8:30 p.m. Cost for the trip is \$25, which includes motorcoach transportation and the tour (bring money for lunch). Make your reservations at the R&W Activities Desk in Bldg. 31, 496-4600, no later than Friday, May 26. Payment due upon reservation. Bus trip will be nonsmoking. □

NHLBI Honors Awardees

Dr. Claude Lenfant, director of the National Heart, Lung, and Blood Institute, recently honored several NHLBI employees at the institute's annual awards ceremony and all-employees meeting.

The awards, including NIH Merit Awards, Public Health Service Commendation Medals, and NHLBI EEO Special Achievement Awards, were given in recognition of outstanding achievements and accomplishments to the overall success of the institute's mission and programs.

The Merit Award winners were: David M. Caden; Dr. Anthony R. Kalica; Dr. James P.



Gretchen Jones (l) and Dr. Clarice Reid of the National Heart, Lung, and Blood Institute were recently presented with NHLBI EEO Special Achievement Awards. Reid was honored "for her contributions to the institute's Equal Opportunity and Affirmative Action efforts" and Jones "for her dedication and special assistance to the handicapped employees on her staff."

Kiley; Austine D. Moulton; and Dr. Margaret C. Wu. The staff of the Office of Prevention, Education and Control received a group award.

Drs. Evan Eisenberg and Neal S. Young received PHS Commendation Medals; Dr. Martha Vaughan, a Unit Commendation; and Drs. Andrew Dannenberg, Michael J. Horan, and Richard R. Fabsitz, PHS Citations.

Eleanor B. Schron and Dr. Jeffrey M. Hoeg were awarded Achievement Medals.

In addition, Dr. Clarice Reid and Gretchen Jones were given NHLBI EEO Special Achievement Awards.

The institute's 10, 20 and 30-year employees were also recognized for their contributions. □

PHOTOGRAPHS

(Continued from Page 1)



O'Neill greeted many associates at the dinner, including Rep. Doug Walgren (l), whose wife Carmala (r) is chairman of the Friends of the Children's Inn at NIH. The black-tie affair raised more than \$500,000 for the inn's endowment.



Among the guests at the \$1,000-per-plate fundraising gala for the Children's Inn were NIH director Dr. James Wyngaarden (l), Frankie Trull, president of the Foundation for Biomedical Research (c) and former Speaker of the House of Representatives Tip O'Neill.

Photos: R. McManus



Dr. Philip Pizzo (l), chief of NCI's Pediatric Branch and his wife Peggy (second from r), a child advocate, meet guests at the dinner, held in the Departmental Auditorium. The Pizzos have long sought a home for NIH's pediatric patients.

NIH Museum Captures Powell Prize

The Dewitt Stetten, Jr. Museum of Medical Research recently won the John Wesley Powell Prize, a biennial award given by the Society for History in the Federal Government in recognition of the best exhibit, motion picture or other nonprint medium focusing on history in American government.

The 1989 prize was given for the museum's series of five exhibits entitled, "Windows into NIH History: A Centennial Retrospective." This year marks the first time an exhibit concentrating on the history of science in medicine has won the award.

"Windows" was cited for "presenting complicated and particularly numbing information in an understandable form." The exhibit, located in the Clinical Center lobby, displays major research advances by NCI, NIDR, NHLBI, NIAID, NIMH and NINDS. □

Wine Festival Benefits Camp

"Vintage Virginia '89" is the theme for the 8th Annual Virginia Wineries Festival June 3-4 in Front Royal, Va.

The festival is sponsored by the Virginia Wineries Association and a portion of the proceeds will be donated to Camp Fantastic, a summer camp for children with cancer. Tickets are available at the R&W Activities Desk in Bldg. 31, 496-4600. Adult tickets are \$8 (\$10 at the gate); tickets for anyone under 21 are \$1.50 (\$2 at the gate). Last day to purchase advance tickets is Wednesday, May 24. □

MENOPAUSE*(Continued from Page 1)*

Menopause symptoms fall into specific and nonspecific categories. Some women begin to experience symptoms at age 35, which is considered early; others at age 55, which is considered late. The average age a woman can expect menopause is between 45 and 50.

"You have this whole new generation that is now wearing bifocals," Haseltine quipped, gesturing toward the glasses on her own nose, "that yelled for the fathers during natural childbirth ... and we're approaching menopause very rapidly ... at a daily rate, it sometimes seems."

According to Haseltine, one of the most specific symptoms of menopause, and one that draws a lot of complaint, is the onset of hot flashes that may occur as frequently as one per hour and often disturb normal sleep patterns.

"(Hot flashes and perspiration) in fact, can be quite uncomfortable," noted Haseltine. "And the women who suffer from them find these almost unacceptable symptoms and will often change their pattern of clothing that they have worn. Some women stop wearing wool."

Other specific and documented symptoms include skin dryness, breast tenderness, headaches, urinary urgency and a thinning of the vagina that may cause sexual dysfunction and can lead to vaginal discharge and bleeding.

Nonspecific symptoms include mood changes such as depression and irritability, both of which can sometimes be related to hot flashes.

"Insomnia caused by hot flashes spills over into the next day," explained Haseltine. "It (insomnia) has been treated with estrogen ... which has been helpful."

Other ailments have not been as easily remedied. For example, skin dryness, which earlier menopause researchers had thought to be an estrogen-related symptom, is now more difficult to treat than by simply prescribing estrogen.

Said Haseltine: "Skin-aging is often associated with sun exposure and normal aging and not, as has been suggested, with estrogen withdrawal. Skin changes do occur in hormonally sensitive skin like the vagina."

Another common symptom, which occurs around age 50, is a deepening of the voice.

"Boys change their voices at (age) 13," said Haseltine, smiling. "Women change their voices at 50."

"And you can often tell when speaking on the phone with a woman what her basic age is because of this subtle difference. Often opera singers have to stop singing the soprano role at that time."

Although estrogen has been used to counter some of the more uncomfortable symptoms of

menopause, Haseltine cautions against a return to using the hormone as a panacea.

"In the fifties, doctors were prescribing large quantities of estrogen in an effort to keep women young forever," Haseltine said.

Although ERT is one of the most important therapies for menopause, it may also be a double-edged sword. ERT has been linked to endometrial cancer.

"Much of our progress (with menopause) has been made in the therapy," said Haseltine. "The therapy ran into trouble in the middle 1970's with the observation that there appeared to be increased endometrial cancer risk associated with estrogen prescription."

According to Haseltine, when studies compared untreated women with women taking prescribed doses of estrogen to treat menopause symptoms, a slightly increased risk of endometrial cancer was shown.

"The epidemiology of all of these studies has been seriously questioned because of bias," she notes. "But the fear of endometrial carcinoma exacerbated by estrogen therapy has been with us ever since."

Additionally, when the estrogen is teamed with the progestational agent progestin, the risk is decreased.

"In the fifties, doctors were prescribing large quantities of estrogen in an effort to keep women young forever."

—Dr. Florence Haseltine
NICHD

"Progestational agents seemed to protect the women ... faced with estrogen therapy," Haseltine noted.

The popularity of oral ERT seems to be diminishing as a result of the links to cancer.

"Hormonal replacement therapy has gone down in (terms of) doses," said Haseltine, referring to women's as well as physicians' preferences.

The optimum dosage level for all forms of ERT is 0.625 milligram of Premarin daily.

Aside from pills, estrogen can be administered in a vaginal cream or in the newest patch form.

"We now find some women wearing two or three patches to get an adequate dosage of estrogen," noted Haseltine. "Use of the patch and its popularity could also be because it's the most recent therapy available. For the most part there's a fifty-fifty balance between preferences for the patch and the pill."

According to Haseltine, studies have found significant differences in the therapy forms. She recounted one of the theories about how estrogen gets to problem areas:

"There have been some pretty fancy theories about how estrogen is metabolized in the body.

"When the ovaries produce estrogen, it goes into the bloodstream and is disseminated directly to the target issues.

"When given orally, however, the therapy goes through the stomach, is absorbed by the bowel, passes by way of the enterohepatic circulation to the liver (metabolizing the liver enzymes) and then goes to the target tissues."

Haseltine also discussed women's risk of osteoporosis (which can occur 10 to 15 years after menopause) and its relationship to ERT: Thinning of the bones can also be linked to menopause. One of the outward signs of bone thinning is the dowager's hump.

"The slightest amount of trauma (inflicted) once the bone has thinned causes damage," said Haseltine, indicating a slide comparing normal and deteriorated bone tissue.

"What's worse is that once the damage is done, the (bone loss) cannot be reversed. If we could look at a microscopic view of this (deteriorated) bone tissue, we could see many tiny, irreversible fractures."

Catching the deterioration in its early stages, however, and treating it with estrogen may prevent extensive damage.

"Your bone status will not go back to the bone status of (age) 18," cautioned Haseltine. "But, in fact, (the treated bone status) will be quite adequate."

Even with estrogen therapy, however, Haseltine admitted that some questions about treating osteoporosis remain unanswered.

"The question is how long should this estrogen be maintained and can you start dropping the dosage as these women age? These things aren't answered."

Concluding the lecture, Haseltine put the risks associated with menopause treatments in perspective.

"A 50-year-old woman walks into your office," she said. "What do you think she's most likely to die from in the next 10 to 15 years?"

"Well, if we believe what we read, we probably think she's going to die from breast cancer or osteoporosis, but heart disease is still a much greater risk, almost 2 to 1 over cancer and about 10 to 1 over breast cancer."

Haseltine discussed the cardiovascular effects of ERT, noting that postmenopausal women on ERT double their risk of heart disease compared to premenopausal women. In fact, researchers have found that prescribing ERT to women with early menopause reduces the risk of heart disease significantly.

Further estrogen may also help reduce the risk of heart disease to women who undergo menopause later. Some of these evaluations will soon be underway in the postmenopausal

estrogen and progesterone evaluation (PEPI) program jointly sponsored by NICHD, NHLBI, NIAMS, NIA, and NIDDK.

"But age is still the main risk factor," said Haseltine. "The older you are, the more likely you are to get cardiovascular disease."

Uppermost in the minds of menopause researchers, then, are three unresolved issues—the risks of breast cancer, cardiovascular disease and endometrial carcinoma that are all associated with ERT.

Still, the single most important advance in menopause research, according to Haseltine, is the changing of the regimen of hormone replacement therapy.

"Researchers are now experimenting with progestational agents," she said. "These agents should be given for 10 days followed by withdrawal of the medication. This withdrawal causes some vaginal bleeding and most women don't like the bleeding. They figure once you're done with menstruation, enough is enough." □



Clinical Center outpatient department (OPD) chief Steve Groban (r) congratulates Wilbert Manuel, OPD's employee of the quarter, for 13 years of dedicated service to the department's local transportation section.

Pregnant Vols Needed

For a study of pregnancy and the postpartum period, interested volunteers who are in their first pregnancy (between 16 and 18 weeks) can call Dr. Douglas S. Rabin, 654-2964, between 9 a.m. and 5 p.m. and leave name and telephone number. The call will be returned, and any questions answered at that time. Participants will be reimbursed. □

Protector Proteins May Unfold Folding Mystery

By Doris Brody

How proteins fold is still a vital question that remains unanswered by contemporary biologists. Solution of the so-called "folding problem" could enable the biotechnology industry to produce many important drugs and other useful products that cannot be manufactured with current techniques. Recent studies indicate that research on heat shock proteins (hsps), which are produced by cells to protect against environmental stress, may shed light on the problem of protein folding.

Dr. Randy Schekman, an NIGMS grantee at the University of California, Berkeley, and his associates, have been studying the function of hsps in the translocation of proteins through membranes. Since the particular role in translocation that hsps play appears to involve protein folding, the researchers believe that additional study of the mechanism may increase understanding of this important area.

Heat shock proteins have been the subject of intensive study for more than two decades by biologists interested in gene structure and expression. The genes that code for the hsps are particularly accessible for study because they occur in microscopically visible areas on insect chromosomes (structures composed of DNA and protein that contain an organism's genes) called "puffs." *Drosophila melanogaster* (fruitfly) puffs are used as a model in which to study how information encoded in DNA is copied into messenger RNA—a process called transcription that is the first step toward making protein. Basic studies of transcription have led to the isolation and sequencing of many heat shock genes and their proteins.

Researchers have discovered that hsps are produced in virtually all organisms from bacteria to human beings and that their chemical composition is highly conserved (very similar) among species—a sign that hsps play a vital role in the life of the cell. However, for a long time scientists did not understand how these proteins function.

Years of painstaking basic research have provided today's scientists with a growing foundation of knowledge and many new tools, including databases that contain the sequence, or order, of the amino acid bases that make up many proteins or the nucleotide bases that make up stretches of DNA or RNA. Now, when researchers sequence a protein, they can quickly compare that sequence with other sequences in the database, perhaps revealing multiple roles for the molecules. Such comparisons are beginning to uncover the function of heat shock proteins.

Schekman and his associates were working out the biochemical details of a particular system of protein translocation when they

decided to look at hsps. One of the proteins in the system they were studying appeared to require partial unfolding before being transported across membranes. The researchers found that this unfolding required the presence of another protein. Because they were aware of earlier reports that certain hsps could alter protein structure, they wondered if the protein that caused unfolding in their system was also an hsp. To find out, they collaborated with another NIGMS grantee, Dr. Elizabeth A. Craig, at the University of Wisconsin, who had done sequence comparisons of many hsps from different organisms.

These collaborative studies showed that the protein involved with the unfolding was a heat shock protein. The researchers postulate that hsps attach to and unfold certain proteins to enable them to pass into cellular compartments more easily. They also think that hsps may aid in refolding proteins that have folded incorrectly. If so, these long-studied proteins may eventually play an important new role in the biotechnology industry. □



Clinical Center employee Charles Butler of the patient activities department weighs in at "Eating for the Health of It," a nutrition fair sponsored by CC's educational services office. The fair highlighted such dietary topics as reducing fat intake, kicking the salt habit, and the importance of bran. Staffed by clinical nutritionists, booths and displays offered healthy diet hints and samples of low calorie dips, cheeses and vegetables.

Monkey B Virus Study

If you work with monkeys or monkey tissues, you may have acquired monkey herpes B virus infection. NIH scientists have found that people can become infected with monkey herpes B virus without becoming ill. A single blood test can determine if you have been infected. For information, call 496-1836. □

Fauci Presents NIAID's Annual Report and Awards

Thirty NIAID employees whose contributions were chosen for special recognition during 1988 were honored in a ceremony conducted by institute director Dr. Anthony S. Fauci.

This marked the second NIAID Director's Annual Report and Awards Ceremony. The concept for the annual awards ceremony stemmed from an initiative of the institute's Equal Employment Opportunity Committee.

Fauci gave an update on the institute's research programs and talked about the challenges ahead. He said NIAID has an "excellent cadre of scientific, administrative and support staff. You all should be receiving awards!"

The following individuals were recognized for their special contributions to NIAID.

DHHS Distinguished Service Award

Dr. Janet W. Hartley, chief, viral oncology section, Laboratory of Immunopathology—"For 34 years of distinguished research in virology at NIH, including major contributions to the understanding of retroviral biology."

PHS Special Recognition Award

Yvonne H. du Buy, executive officer, National Institute of Dental Research (formerly chief, Financial Management Branch, NIAID)—"For sustained exceptional financial leadership of the National Institute of Allergy and Infectious Diseases."

Dr. Maureen W. Myers, chief, Treatment Research Branch, AIDS Program—"For outstanding leadership and achievement as chief of the Treatment Branch, AIDS Program, and for development of the AIDS extramural clinical trials program."

NIH Director's Award

Dr. Claude F. Garon, chief, Laboratory of Pathobiology, Rocky Mountain Laboratories, Hamilton, MT—"For significant administrative and research accomplishments related to studies on viral and microbial pathogenicity."

Dr. Thomas M. Folks, chief, Retrovirus Diseases Branch, Centers for Disease Control (formerly expert, Laboratory of Immunoregulation)—"For major contributions to the understanding of the pathogenesis of infection with the human immunodeficiency virus and the fostering of collaborative research between institutes."

Dr. David L. Klein, bacterial vaccines program officer, Development and Applications Branch, Microbiology and Infectious Diseases Program—"In recognition of exceptional leadership, initiative and judgment in the development and coordination of clinical trials for evaluation of acellular vaccines for *Bordetella pertussis*."

NIH Merit Award

Dorothy R. Alberstadt, patient care coordinator, Laboratory of Clinical Investigation—"For maintaining the highest standards of excellence in NIAID patient admissions, and for consistent tact and understanding in patient affairs."

Dr. R. Mark L. Buller, visiting scientist, Laboratory of Viral Diseases—"For conducting an innovative research program on virus pathogenesis and host immunity."

Dr. Judith E. Feinberg, expert, Treatment Research Branch, AIDS Program—"In recognition of exceptional efforts in establishing a national AIDS clinical trials program, particularly for opportunistic diseases and pediatric populations."

Claudia R. Goad, committee management assistant, Extramural Activities Program, Office of the Director—"In recognition of her extraordinary contributions and exceptional efforts in coordinating the committee management activities of the NIAID."

Roger E. Pellis, deputy executive officer, Office of the Director—"In recognition of his creative and skillful contributions to the administrative management of the NIAID."

Dr. Carla B. Pettinelli, medical officer, Treatment Research Branch, AIDS Program—"In recognition of exceptional efforts in establishing a coordinated national program of clinical trials for the treatment of HIV infection."

Dr. David L. Sacks, microbiologist, immunology and cell biology section, Laboratory of Parasitic Diseases—"For highly creative and innovative research achievements in the immunology and biology of parasites."

Holly A. Smith, biological laboratory technician, medical virology section, Laboratory of Clinical Investigation—"In recognition of 34 years of contributions to clinical virology and the NIH community."

Equal Employment Opportunity Award

Dr. Richard Asofsky, chief, experimental pathology section, Laboratory of Immunology—"For exceptional dedication to EEO principles by effectively encouraging and training minorities and women students to achieve their highest potential at the National Institutes of Health."

Dr. Robert K. Bergman, chief, Operations Branch, Rocky Mountain Laboratories, Hamilton, MT—"For providing outstanding leadership in support of EEO principles at the Rocky Mountain Laboratories."

Michael Goldrich, executive officer, Office of the Director—"For sustained and demonstrated support and sensitivity in carrying out EEO principles and serving as a role model for other senior managers within the NIAID."

Elizabeth S. Hamby, librarian (medical science), Rocky Mountain Laboratories, Hamilton, MT—"For dedication and excellent perseverance as Rocky Mountain Laboratories EEO counselor to uphold and promote EEO principles."

Jean M. Hudgins, supervisory budget analyst, Financial Management Branch, Office of the Director—"For successfully using EEO principles to increase morale, productivity and advancement opportunities in the work environment for minorities and women."

William Humphrey, Jr., legislative assistant to Maryland Delegate Ulysses Currie, (formerly biological laboratory technician, Laboratory of Immunology)—"For outstanding leadership and dedication to the NIAID EEO advisory committee during difficult periods of growth in striving to promote EEO principles throughout the institute."

PHS Commissioned Corps Awards

Meritorious Service Medal

Dr. John I. Gallin, director, Intramural Research Program—"For outstanding research in the field of phagocyte function and outstanding contributions on the neutrophil and its function in host defense."

Dr. Warren Strober, chief, mucosal immunity section, Laboratory of Clinical Investigation—"For outstanding contributions to clinical immunology with particular reference to the role of the mucosal immunity system in host defense mechanisms."

Outstanding Service Medal

Dr. Allen W. Cheever, assistant chief, Laboratory of Parasitic Disease—"For a sustained record of key research contributions in pathology and pathogenesis of schistosomiasis, and for collaborative and administrative support of trainees in parasitology research."

Dr. Lewis J. Markoff, senior investigator, Laboratory of Infectious Diseases—"For conceiving and implementing antigenic analysis of the dengue virus envelope glycoprotein using synthetic peptides to identify linear epitopes."

Dr. Brian R. Murphy, chief, respiratory viruses section, Laboratory of Infectious Diseases—"For conceiving, developing and successfully evaluating a new genetic approach to attenuation of influenza A viruses for the purpose of immunoprophylaxis."

Dr. Antonia C. Novello, deputy director, National Institute of Child Health and Human Development—"For outstanding initiative and leadership in increasing public awareness of AIDS in pediatric populations, and for promoting outreach to minorities and health care professionals."

Dr. Thomas C. Quinn, senior investigator, Laboratory of Immunoregulation—"For outstanding contributions in the study of the epidemiology and natural history of HIV infection in the international community."

(Continued on Page 9)



NIAID director Dr. Anthony S. Fauci recognized 30 individuals for their special contributions to the institute at the NIAID Director's Annual Report and Award Ceremony. Among those cited were Dorothy R. Alberstadt (r) and Holly A. Smith (l).

(Continued from Page 8)

Commendation Medal

Dr. Richard A. Kaslow, chief, epidemiology and biometry section, Clinical and Epidemiological Studies Branch, Microbiology and Infectious Diseases Program—"For broad-ranging and innovative epidemiological investigations of HIV infection and of Lyme disease and for building a productive epidemiology and biometry section in NIAID."

Dr. Randi Leavitt, senior investigator, Laboratory of Immunoregulation—"For continued excellence in the clinical investigation of patients with a variety of autoimmune diseases, and in particular, the vasculitic syndromes."

Dr. John L. Portis, research immunologist, Rocky Mountain Laboratories, Hamilton, MT—"For studies of retroviral biology, immunology and pathogenesis." □

New Biology Journal Begins

The American Society for Cell Biology is starting a new journal called *Cell Regulation*, scheduled to appear first in November 1989. Edited by Erkki Ruoslahti of the La Jolla Cancer Research Foundation, the journal includes Dr. Michael Sporn of NCI on its editorial board.

Cell Regulation will publish articles on all aspects of cell regulation, including reception, transduction and integration of information. It will deal with the molecular biology and physiology of receptors, transducing systems, informational molecules and their relevance to the growth, development and physiology of prokaryotic and eukaryotic cells.

For information about manuscript submissions and subscriptions, contact ASCB, 9650 Rockville Pike, Bethesda, MD 20814, phone 530-7153. □

Lecture on Drug Abuse

The NIH Employee Counseling Services will present a lecture and video presented by Lee Dogoloff, director of the American Council for Drug Education, entitled, "A Gift For Life: Helping Your Children Grow Up Drug and Alcohol Free," on Thursday, May 18, from noon to 1 p.m. in Lipsett Amphitheater, Bldg. 10. □

Research Subjects Needed

Earn up to \$260 for learning to discriminate the effects of one drug from another. Minimum time required over a 7-week period. Involves only commonly prescribed drugs, and minimal effort. You may be between ages 18 and 50 and in good health. Call 295-0972 weekdays between 9 a.m. and 12 noon, Uniformed Services University of the Health Sciences. □

Dr. John B. Robbins Honored for Vaccine Work

Dr. John B. Robbins, chief of the Laboratory of Developmental and Molecular Immunity, NICHD, recently delivered the annual Louis Weinstein Lecture at Tufts University. He was honored for his many contributions to vaccine development, which are of considerable significance to public health worldwide.

In September, Robbins' achievements, together with those of his longtime colleague, Dr. Rachel Schneerson, will again be acknowledged when he delivers the Maxwell Finland lecture to the Infectious Disease Society of America at the society's annual meeting in Houston.

The research conducted in Robbins' laboratory during the past 20 years, particularly on polysaccharide antigens, has culminated in the introduction of several new vaccines directed against common, serious bacterial infections. In large part because of Robbins' efforts and those of his coworkers, a vaccine is now available to protect children 2 years and older against meningitis caused by *Haemophilus influenzae* type b, the leading cause of acquired mental retardation in this country. The incidence of *H. influenzae* meningitis has been halved since the introduction of the vaccine. Together with Schneerson, Robbins also pioneered the technique of increasing the immunogenicity of polysaccharide vaccines by conjugating them with proteins. With this approach, he and his colleagues have succeeded in developing a vaccine, now undergoing clinical trials, to protect those most at risk



Dr. John Robbins

from *H. influenzae* meningitis—children under the age of two. The list continues with vaccines against *Pneumococcus*, *Staphylococcus aureus* and group B *Streptococcus*, as well as an improved vaccine against *Salmonella typhi*, the agent causing typhoid fever. Other innovations are a new vaccine against pertussis ("whooping cough") consisting of toxoided pertussis toxin, which, it is hoped, will replace the whole cell vaccine now in use, thus eliminating its worrisome side effects.

Robbins is the recipient of many other honors, including the Mead Johnson Award of the American Academy of Pediatrics, the FDA Commendable Service Award, the Distinguished Service Award of the Public Health Service and an honorary degree from the University of Goteborg, Sweden. □

Hunt Country Stable Tour

Once a year, Virginia horse farm owners open their stables and grounds to the public for the Hunt Country stable tour. This year's tour, sponsored by Trinity Episcopal Church of Upperville, will be Saturday and Sunday, May 27–28.

The tour features a dozen stops, including several horse farms, a vineyard, thoroughbred training track and a commercial equestrian center. Among the farms open this year will be Kent Farms, home of Washington Redskins' owner Jack Kent Cooke, and both the broodmare and yearling barns of Paul Mellon's Rokeby Stables.

Visitors drive their own cars on the tour and proceed at their own pace. Lunches and picnic grounds will be available. Tickets are \$12 for adults, \$6 for children under 12, and allow each visitor to see every farm on the tour on one or both days. For more information or to purchase tickets, contact the R&W Activities Desk in Bldg. 31, 496-4600. Last day to purchase tickets through the R&W is Friday, May 12. □

Diabetics Group Meets Monthly

A support group for diabetics meets every third Sunday of the month in the 9th fl. conference room of Bldg. 10 from 1 to 3 p.m. Diabetics, their friends and family are welcome to join in the discussion. Call 331-8303 (the American Diabetes Association) for more information. The next meetings are scheduled for May 21, June 18, and July 16. □

Hoop Players Invited

A three-on-three street basketball festival benefiting the Metropolitan Washington Police Boys and Girls Clubs will be held May 19–21 on Pennsylvania Ave. near the District Building in Washington, D.C.

Teams of four players each can register for the "Hoop-It-Up" tournament at a cost of \$60. Teams are flighted in divisions, based on basketball experience, height and age.

For more information, call 289-4493. □

*Biosafety Expert Retires***Emmett Barkley Leaves NIH, Joins HHMI**

By Anne Barber

He left but he didn't go far.

The director of the Division of Engineering Services, Dr. Emmett Barkley, retired from NIH on Mar. 31. After 28 years of service in the PHS Commissioned Corps, he has accepted a job with the Howard Hughes Medical Institute as director of laboratory safety.

"I am delighted with the opportunity to stay in the biomedical research community and maintain contact with colleagues I've worked with most of my career," he says.

"In fact, when I started out in biosafety in the Special Virus and Leukemia Program for NCI, I helped provide biological safety guidance to research laboratories associated with many of the universities," he continued. "Now I'll be working again with some of the same universities and will have a chance to renew old professional ties.

"I will continue to maintain strong and lasting ties with NIH."

Barkley came to NIH in 1963 to work in the engineering program for the Division of Research Services. Assigned as liaison engineer to NCI, his job was to help define the engineering needs and requirements of scientists in NCI laboratories.

"This was my first job in establishing a bridge between scientists and engineers," he said.

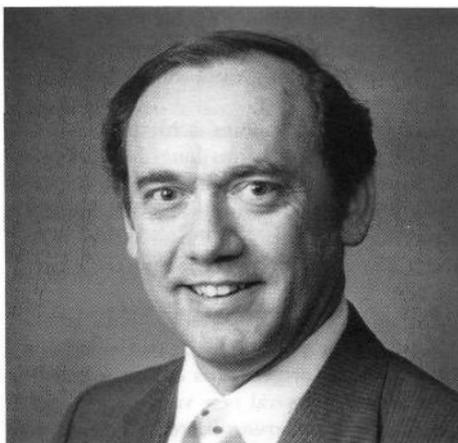
In 1964, he joined NCI and later returned to graduate school to focus on environmental health and microbiology. He received his undergraduate degree in engineering from the University of Virginia.

While at NCI, Barkley was involved with the potential risks of working with the cancer viruses and helped develop biosafety lab procedures that would reduce workers' exposure to hazardous materials. "Out of that experience came the opportunity to help define physical containment practices and develop guidelines regarding recombinant DNA," he said.

In 1979, NIH recognized the need to develop a strong lab safety program. Barkley was asked to start an organization that would consolidate all safety components into one—thus the creation of the Division of Safety.

In 1987, Barkley was named director of the Division of Engineering Services, which put him back where he began his career at NIH.

Many significant changes have taken place during his career here. "Before DS was formed, chemicals were handled as conventional waste. Acids and bases were disposed of by the fire department at a cost of \$20,000 a year," he said.



Dr. Emmett Barkley

"Today we spend between \$4 and \$5 million a year on waste disposal."

The first building Barkley worked on was Bldg. 41—the containment lab for cancer research. "I learned a lot from that building," he says. "Mostly that when you try to design and complete a facility too quickly, you make errors. You don't recognize the errors until they are built in.

"I find that the lessons learned back then still prove difficult to carry out today."

As Barkley leaves DES, he reports, "We have a very aggressive building program today. We are adding a significant amount of new research space by the construction of Bldgs. 49, 6B and several expansions of Bldg. 10." Design for the proposed Consolidated Office Building will begin in June and construction may begin as early as next summer.

Barkley stated that, "The greatest engineering challenge that NIH faces today is the need to renew and expand the central plant facilities and utility distribution systems and to rehabilitate Building 10. These facilities have deteriorated to the point that they can no longer be depended upon to provide reliable and sufficient utility services to support research on the NIH campus." Barkley developed the DES Infrastructure Enhancement Program to accomplish the required restoration of these facilities.

While working in DS, Barkley assisted in developing biosafety guidelines in collaboration with the Centers for Disease Control. "I am very pleased that those guidelines are viewed today as the single most authoritative set of biological safety guidelines in existence."

Reflecting on his NIH experiences, he said, "I don't think anyone could have had a more rewarding career. I had the opportunity to get involved in an array of different programs and activities."

According to Barkley, one of his bigger hurdles came when the Security Branch was placed under the DS.

"Here I was an engineer trained in microbiology. This was definitely a challenge. For the first time in my career, I had to rely solely on management concepts rather than technical skill. But what I found was a group of individuals who wanted to be given an opportunity to serve NIH.

"I learned from that experience," he continued, "that when you believe in the workforce's commitment to excellence, a very good relationship can evolve."

The recipient of many awards and honors, Barkley received the PHS Meritorious Service Medal in 1977 and again in 1983, and the PHS Commendation Medal in 1972. He has also published many articles on biosafety. □

Bowling, Pizza for a Buck

A dollar doesn't buy much these days, but on May 18 it will be good for an evening of fun. R&W, the Bethesda Naval Bowling Center and Postal Pizza have teamed up to treat NIH employees to two games of bowling and pizza for a buck! All NIH employees and their family members are invited to attend. The event kicks off at 5:30 p.m. at the Bethesda Naval Bowling Center (across the street from NIH's main campus). Advance reservation with payment is required. Contact the R&W Activities Desk in Bldg. 31, 496-4600. Space is limited so sign up now for this one-time offer. □

Weekend Whitewater Adventure

Spend an adventurous weekend atop beautiful Snowshoe Mountain in West Virginia, May 19–21. We've included two nights lodging in an elegant Whistlepunk Village condominium (two bedrooms—four people per condo) with all the comforts of home; unlimited use of the Whistlepunk Spa; a breakfast buffet each morning; and a full day of rafting on the Tygart or Cheat River (depending on water levels) followed by a delicious barbecue dinner. All this for only \$144 per person. For more information call the R&W Activities Desk at 496-4600. If whitewatering isn't your style, we can substitute horseback riding, golf, tennis, or a ride on the scenic Cass Railroad. □

TRAINING TIPS

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

Courses and Programs Dates

Management and Supervisory 496-6371

Reviewing Other People's Writing 5/2
Pragmatic Problem Solving 5/17

Office Operations Training 496-6211

Introduction to Working at NIH for New Support Staff 5/2
Delegated Acquisition Training Program 5/8
Professionalism and the Office Secretary 5/15
Foreign Travel 5/17

Training and Development Services 496-6211

Personal Computer training is available through User Resource Center (URC) self study courses. There is no cost to NIH employees for these hands-on sessions.

The URC hours are:

Monday-Thursday 8:30 a.m.-7:00 p.m.
Friday 8:30 a.m.-4:30 p.m.
Saturday 9:00 a.m.-1:00 p.m.

NOW AVAILABLE ON SHARE TRAINING - FY 89 Training Center courses.

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Blood Pressure Screening Offered

Do you know your pressure? Many people think that they don't have to worry about their blood pressure because they are thin or not "the nervous type." Because there are not tell-tale signs of high blood pressure, there is no way of guessing it. So put your mind at ease by participating in blood pressure screening at the Occupational Medical Service (OMS) during May, National High Blood Pressure Month. This is available to NIH employees at the following sites around campus from 9 a.m. to 1 p.m. each day:

Date	Place
May 5	Bldg. 30, Rm. 132
May 9	Bldg. 29, Rm. 115
May 12	Bldg. 12A, Rm. 3026
May 19	Bldg. 10, Special Events Rm. 1C174
May 23	Bldg. 1, Wilson Hall
May 24	Bldg. 36, Rm. 1B13
May 26	Bldg. 10, ACRF outside 2nd floor cafeteria

Screening is also available in the ongoing OMS-sponsored blood pressure clinics at the following sites and times:

NIDR's Dr. William Wright Retires After 24 Years in PHS

Dr. William E. Wright, an officer in the PHS Commissioned Corps, and senior staff periodontist in the Clinical Investigations and Patient Care Branch at the National Institute of Dental Research, retired Mar. 1. He served with the PHS for 24 years, more than 17 of those years with NIDR.

"The friendliness and cooperation of everybody at the institute has been remarkable. That's one of the things that really stands out since I've been here," said Wright.

His research at NIDR has focused on periodontal diseases and the oral side effects related to radiation and chemotherapy.

"I think I've gained the most satisfaction from helping the people on the oncology ward deal with the oral problems they face during chemotherapy and other types of cancer treatments. I feel that I've been able to help those patients understand and cope with the variety of unpleasant side effects that they experience," he said.

Wright developed a preventive oral health program to assist NIH cancer patients before, during and after their chemotherapy or radiation treatments. Because of the disease itself or a consequence of therapy, cancer patients with lowered platelets and white blood cell counts are at increased risk for developing bleeding within the mouth, inflammation of oral mucous membranes, and serious oral or systemic infections.

Wright's latest research concentrated on evaluating the ability of a nonsteroidal, anti-inflammatory agent to prevent the loss of tooth-supporting bone in adults. The project is part of a multicenter collaborative research activity between NIDR and the Upjohn Co.

Wright received his B.S. from Texas A&M University, his M.S. from Iowa State Univer-



Dr. William Wright

sity, and his D.D.S. from the University of Tennessee. In 1964 he joined the PHS as a dental intern. He later served as the chief dental officer at the Federal Reformatory for Women in West Virginia and eventually became the chief dental officer at the federal prison in Atlanta. In 1969 he served as a clinical associate at NIDR. The following year, he entered the University of Kentucky as a periodontal resident where he subsequently received a graduate certificate in periodontics in 1972.

Upon completion of his training, Wright returned to NIDR as a research periodontist and stayed at the institute until his retirement.

Retirement plans include consulting, traveling and spending more time with his family, especially his grandchildren.

A party was held in his honor in the medical board room of the Clinical Center. □

Date	Place	Time
May 1-May 31	Bldg. 10, ACRF, Rm. 6C306 Main Health Unit	Mon. 1:15-4:15 p.m. Thurs. 8:15-11:15 a.m. Mon.-Fri. 4:30-6 p.m. 10 p.m.-12 a.m.
May 1-31	Bldg. 13 Rm. G901	Mon. and Fri. 8:30 a.m.-4 p.m. Tues., Wed. and Thurs. 8:30 a.m.-11 a.m.
May 1-31	Westwood Bldg. Rm. 11	8 a.m.-4:30 p.m. (Closed Tues. at 2 p.m. and all day Thurs.)
May 4, 18	Executive Plaza North, Rm. 103	Thurs. 8:45-10:45 a.m.
May 4, 11, 18, 25	Federal Bldg. Rm. 10B08	Thurs. 1-3 p.m.
May 2, 9, 16, 23, 30	Bldg. 31, Rm. B2B57	Tues. 1-3 p.m.
May 3, 10, 17, 24, 31	Bldg. 38A, Rm. B1N28G	Wed. 2-4 p.m. □

NAS Honors Mizuuchi, Davis

Two members of the NIH community were among 13 scientists honored for major contributions to their disciplines by the National Academy of Sciences at its 126th annual meeting on Apr. 24.

Dr. Kiyoshi Mizuuchi, chief of the section on genetic mechanisms, NIDDK, received the NAS Award in molecular biology, supported by Monsanto Co.

The award is a continuation of the award in molecular biology supported by the U.S. Steel (now USX) Foundation from 1961 to 1988, recognizing recent notable discoveries in molecular biology by young scientists. Mizuuchi won the \$20,000 prize for bringing about "remarkable advances in our understanding of transposition and other forms of genetic recombination."

Also honored by NAS was Dr. Bernard Davis, a Fogarty scholar-in-residence and professor of bacterial physiology at Harvard Medical School, who received the Selman A. Waksman Award in microbiology.

The award recognizes Davis for "ingenious development of the penicillin technique for isolating mutants and his leadership in its application to microbial physiology." □

Conference on Intercellular Communication in Growth

The Fogarty International Center will sponsor a conference on, "Intercellular Communication in Growth and Development," in the Lister Hill Center auditorium May 15-17.

Organized by Dr. Jamshed R. Tata, a Fogarty scholar-in-residence from the National Institute for Medical Research, Mill Hill, London, the conference will bring together prominent investigators from the United States and abroad to discuss diverse aspects of molecular communication between cells.

The program encompasses a wide range of topics, including the transduction of extracellular signals, the roles of oncogene products in provoking cellular responses, and the regulation of cellular growth and differentiation. It is designed to highlight the common features and differences in mechanisms underlying such complex biological processes as neurotransmission, fertilization, hormonal regulation, gene expression, immune responses and carcinogenesis.

Persons interested in attending the conference may obtain registration information from Nancy Shapiro, 496-9624. □



NIAID director Dr. Anthony S. Fauci has received the National Public Service Award from the American Society of Public Administration and the National Academy of Public Administration. The award is presented annually to five distinguished individuals whose careers exemplify the highest standard of excellence in public service. Fauci was cited as "a leader in the fight against AIDS in both the realm of human sensitivity and research into the ways of fighting the deadly disease. He has an extraordinary talent for converting precise medical language into terms the general public can understand, thus calming fears and educating the public."

Preschool Holds Book Fair

The NIH Preschool will hold a book fair May 8-12 to celebrate the Year of the Young Reader. It will be held outside Bldg. 10 from 11:30 a.m. to 1:30 p.m. each day. Proceeds benefit the NIH Developmental Program. □



Dr. Linus Pauling visited NIH recently to meet with NCI director Dr. Samuel Broder and with Dr. Peter Greenwald, director of NCI's Division of Cancer Prevention and Control. Pauling is the only person to have won both the Nobel Peace Prize and a Nobel Prize for science (chemistry). He has had a long-standing interest in the possible beneficial effects of high doses of vitamin C and contacted NCI about doing further studies on this subject. Pictured above are (from l) Greenwald, Pauling, Broder and Dr. Morton Klein, who accompanied Pauling.

Solowey Winner To Lecture

Dr. Dennis W. Choi is the 1989 winner of the Mathilde Solowey Lecture Award in the Neurosciences. He will present "Glutamate Neurotoxicity *In Vitro*: Implications for the Therapy of Acute Brain Injury," on Wednesday, May 10 in Lipsett Amphitheater at 1:30 p.m. A reception will follow the lecture.

Choi received his M.D. at Harvard Medical School and his Ph.D. in pharmacology at Harvard University. He is currently assistant professor of neurology at Stanford University School of Medicine and attending neurologist and associate director of the residency program in neurology at Stanford Medical Center.

Choi's contributions have been in the forefront of study on the role of excitatory amino acids in the central nervous system, their relationship to neurotoxicity and their normal role in neuronal processes. He has explored the interaction of glutamate with the NMDA-receptor complex with special regard to the development of antagonists and their role as neuroprotective agents. His research has direct relevance to neurotoxicity stemming from stroke, cardiac arrest, insulin-induced hypoglycemia, epilepsy and various degenerative diseases such as Huntington's disease and amyotrophic lateral sclerosis.

The Mathilde Solowey Lecture Award in the Neurosciences was established in 1973 by the Foundation for Advanced Education in the Sciences and honors, each year, an outstanding scientist specializing in research in neurobiology or diseases of the central nervous system. This award is made possible through the generosity of Dr. Mathilde Solowey, a former scientist at the National Institutes of Health. □