NCI Sponsors Large-Scale Study

Breast Cancer Prevention Trial To Tap 16,000 Women

Researchers announced Apr. 29 that the first large-scale breast cancer prevention study for women at increased risk for the disease is starting at more than 270 sites across the United States and Canada. The Breast Cancer Prevention Trial (BCPT), a study designed to see whether the drug tamoxifen will prevent breast cancer, is being conducted by the National Surgical Adjuvant Breast and Bowel Project (NSABP) and is sponsored by NCI. Sixteen thousand women, ages 35 and older, who are at increased risk for breast cancer will participate.

"The Breast Cancer Prevention Trial is an especially important investigation that may identify a practical method to prevent the development of this disease in certain high-risk women," said NCI director Dr. Samuel Broder. Over the next 10 years, about 1.5 million women in the U.S. alone will be diagnosed with breast cancer and almost half a million will die of the disease.

Research suggests that tamoxifen should not only reduce by at least a third the number of breast cancers that the women on the drug will develop, but also may reduce the risk of (See TAMOXIFEN, Page 8)

**Kemron’s Success Doubtful**

Interferon’s Promise Against AIDS Fades, Says Panel

By James Hadley

Low-dose oral interferon alpha in its various forms, including Kemron, is not recommended at this time for treatment of persons with HIV infection, according to a statement released by the AIDS research advisory committee to NIAID. The committee concluded that research studies—ongoing and completed—do not support an earlier report that Kemron is an effective therapy.

In the statement, the congressionally mandated committee of nongovernment experts also "strongly encourages HIV-infected patients to seek treatment with therapies whose efficacies have been established in well-designed, controlled clinical trials." The committee also recommends that NIAID "encourage the completion and analysis of ongoing studies' of low-dose interferon alpha and provide an updated report within a year."

Dr. Gerald Medoff, committee chair, said, "We share the disappointment of persons infected with HIV that the later studies of low-dose oral interferon alpha have not confirmed its efficacy. However, we are pleased that more and more therapeutic options continue to emerge from well-designed, con-

(NIH Lecture To Feature Gene Targeting Pioneer

By Bob Bock

Dr. Mario R. Capecchi, a scientist who pioneered the method for inserting an altered gene into its correct location on a chromosome, will give the next NIH Lecture. An investigator of the Howard Hughes Medical Institute at the University of Utah Medical Center, he will present "Creating Mice with Targeted Disruptions in Proto-oncogenes and Homebox Genes" at 3 p.m. on May 21 in Masur Auditorium, Bldg. 10.

Capecchi is credited with the first successful

Despite Advances, Ideal Birth Control Remains Elusive

By Anne Blank

Each year, more than half of the pregnancies in the United States—roughly 3,200,000—are unintended. In the late 1970's and early 1980's, approximately 52 percent of U.S. pregnancies were unintended; in 1985-1987, it was 53 percent, and the numbers may be rising.

At the same time, however, contraceptive users have more choices today than in the past. From condoms to birth control pills, the intrauterine device (IUD), sterilization, Norplant, the sponge, and the soon-to-be-available female condom, contraceptive choices for both men and women are expanding. Why, then, do so many unintended pregnancies continue to occur?

One reason is that, despite the wide range of available birth control methods, more effec-

(See STRONG HEART, Page 10)
INTERFERON

(Continued from Page 1)
trolled clinical trials." Medoff is codirector of the infectious disease division in the department of internal medicine at Washington University School of Medicine in St. Louis.

The advisory committee, composed of medical professionals, researchers and persons with HIV infection, advises NIAID on treatment research and dissemination of the results of that research to the patient and professional communities.

In response to the perception that many HIV-infected persons were using Kemron or other forms of low-dose oral interferon alpha, the committee requested that NIAID staff review all currently available information on this treatment and prepare a report. The report summarizes 13 studies, including initial studies by Dr. Davy Koech and colleagues at the Massachusetts Institute of Technology, Kodak Research, and the Eli Lilly Corp. She has also appeared on national television including Good Morning America and The Infinite Voyage: Unseen Worlds.

CoX is codirector of scientific communications and media services at the National Center for Supercomputing Applications, University of Illinois. In the past 3 years, Cox, a distinguished lecturer, has given more than 40 invited presentations of her academic research and art that have included special keynote addresses at the Massachusetts Institute of Technology, Kodak Research, and the Eli Lilly Corp. She has also appeared on national television including Good Morning America and The Infinite Voyage: Unseen Worlds.

Morehouse’s Sullivan Visits NIH

Dr. Walter Sullivan, vice president of health promotion in the office of sponsored programs at Morehouse School of Medicine, was the keynote speaker at a recent meeting of NIH’s contract compliance committee. He discussed his home institution and barriers that historically Black colleges and universities encounter in their efforts to obtain support from federal, state and private sources. “Dr. Sullivan’s presentation was very enlightening,” said Carl Fretras, director of NIH’s Division of Contracts and Grants, OA, OD.

Alcoholism Lecture Planned

NIAAA director Dr. Enoch Gordis will present a lecture, “What Have We Learned About Alcoholism?” on Wednesday, May 27 from 7 to 8:30 p.m. in Masur Auditorium, Bldg. 10. It will address such issues as the difference between alcohol abuse and alcoholism, latest findings in genetic and environmental research on alcoholism, fetal alcohol syndrome, and the future of alcohol research. The meeting is open to the public. For more information call (301) 443-3860.

Leiter Lecture Features Computer Graphics Expert

The 1992 Joseph Leiter Lecture will be presented by Donna J. Cox, an internationally recognized authority on computer graphics, on May 28, from 4 to 5:30 p.m. in the National Library of Medicine’s Lister Hill Center auditorium (Bldg. 38A). Cox’s lecture is entitled “Scientific Visualization and Renaissance Teams.”

Cox is codirector of scientific communications and media services at the National Center for Supercomputing Applications, University of Illinois. In the past 3 years, Cox, a distinguished lecturer, has given more than 40 invited presentations of her academic research and art that have included special keynote addresses at the Massachusetts Institute of Technology, Kodak Research, and the Eli Lilly Corp. She has also appeared on national television including Good Morning America and The Infinite Voyage: Unseen Worlds.


Cox’s static computer images and computer graphics animations have been printed, cited, or reviewed in more than 60 publications, including Time and National Geographic. They have appeared on television programs such as Nova and have been presented in more than 60 invitational and juried exhibits including shows at the Bronx Museum of Art in New York, Fermilab and the Museum of Contemporary Photography in Chicago, and the National Academy of Sciences in Washington, D.C. Her works are among the permanent collections of the Boston Computer Museum and the Saibu Gas Museum in Japan. A recipient of a Kodak Research Division Grant, she is also one of the first artists to receive an NSF supercomputer grant.

The Joseph Leiter Lectureship was established in 1983 to honor Dr. Joseph Leiter, who for 18 years was associate director of NLM’s Library Operations Division. He retired in 1983 after a federal career of 50 years.

The lecture is being held in conjunction with a meeting of the library’s Board of Regents and the annual meeting of the Friends of the National Library of Medicine. For more information, call 496-6308.

Relay Race Planned, May 20

The 15th annual NIH Institute Relay Race will be held on Wednesday, May 20, at noon in front of Bldg. 1, sponsored by the NIH Health's Angels Running Club. The relay race, a "rite of spring" at NIH, will involve teams in five divisions. Team members will complete a half-mile sprint around Bldg. 1. This year, for the first time, PHS employees from the Parklawn complex are invited to compete. Come out and enjoy friendly competition or cheer your colleagues on to glory. Teams are reminded that their $5 entry fee and form must be turned in by 4 p.m. on May 15 to the R&W Activities Desk in Bldg. 31. For information about the race or to volunteer to help with the event, call Jerry Moore, 496-4606, or Judy Gifford, 496-3967.

The NIH Record

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Weight Loss Reduces Risk of Osteoarthritis of the Knee

By Barbara Weldon

Weight loss in women significantly reduces the risk of osteoarthritis (OA) of the knee, according to a report in the April issue of the Annals of Internal Medicine. It has been established that obesity is a risk factor for osteoarthritis of the knee. However, the effect of weight loss on the prevention of disease has until now been unknown.

The research was supported by grants from NIAMS and the Arthritis Foundation.

Researchers led by Dr. David Felson at the Boston University Multipurpose Arthritis and Musculoskeletal Diseases Center in Massachusetts focused on risk factors that, if altered, could prevent osteoarthritis. The Framingham Study, where body weight was regularly recorded as a part of long-term followup examinations, provided a unique opportunity to evaluate the effect of weight change on the risk of symptomatic knee osteoarthritis. During the 18th biennial examination, which was conducted from 1983 through 1985, subjects were evaluated for OA of the knee. Felson and his associates compared data on 64 women who met the criteria for recent onset of disease with that of women without evidence of OA. They assessed the association between weight change and OA of the knee, taking into account age, baseline body weight (up to 12 years before symptom onset), previous knee injury, levels of physical activity, occupation, smoking status and education. Two different aspects of weight were evaluated: baseline weight and more recent changes in weight. The researchers found that a weight loss of 11 pounds (for women of average height) over a period of 8 to 12 years before the current examination reduced by half the odds of developing osteoarthritis of the knee. This was especially true for women who were overweight at baseline. According to Felson, "This effect is important for clinicians with overweight patients who wish to lower their risk for subsequent knee disease."

Degenerative joint disease or osteoarthritis, the most widespread of all the rheumatic diseases, affects an estimated 16 million Americans. OA primarily affects cartilage, the protective material that covers and cushions the ends of the bones, causing it to fray, wear, ulcerate and, in extreme cases, disappear entirely, leaving a bone-on-bone joint. At the edges of the joint, bony spurs may form. Disability results most often from disease in the knees, hips and spine. About one-third of all U.S. adults have x-ray evidence of OA involving at least one of these sites and, by age 65, as much as 80 percent of the population has evidence of OA in some joint. According to researchers, "More than 10 percent of people, mostly women, over the age of 65 have some form of OA of the knee. The disease causes considerable disability and accounts for most of the total knee replacements done in the United States each year."

"This exciting finding may delay or even prevent osteoarthritis of the knee in thousands of American women," said Dr. Lawrence E. Shulman, NIAMS director.

Uhl Wins Solowey Award, To Lecture in Lipsett Amphitheater

Dr. George R. Uhl is the winner of the 20th Mathilde Solowey Lecture Award in the Neurosciences, sponsored by the Foundation for Advanced Education in the Sciences, Inc. He will present a lecture entitled "Genes and Drug Abuse" on Tuesday, May 19, at 3:30 p.m. in Lipsett Amphitheater, Bldg. 10.

Uhl is chief of the Molecular Neurobiology Laboratory, National Institute on Drug Abuse, and associate professor of neurology and neuroscience at Johns Hopkins School of Medicine. He was trained in neuroscience and neurology at Hopkins, where he received his Ph.D. in 1978 and his M.D. in 1979.

Uhl has carried out exceptional work in the cloning of cDNA's for receptors for drugs of abuse and in utilizing markers related to vulnerability to drug abuse. The receptors include the benzodiazepine-GABA receptor as well as the dopamine transporter. The dopamine transporter is believed to be the cocaine "receptor" related to addiction. Uhl has provided evidence that genetic markers associated with dopamine-2 receptors reveal genetic linkages for substance abuse in humans. Currently, he is directing programs aimed at elucidating the regulation of genes relevant to drugs of abuse and neurotransmission in the nervous system.

Ethics Lectures Resume

The Bioethics Lecture Series for clinical associates and postdoctoral fellows resumes this month with a lecture on May 15 by Dr. Alan Schechter, chief of NIDDK's Laboratory of Chemical Biology. He will discuss "Integrity in Research: Individual and Institutional Responsibilities" from 12:30 to 1:30 p.m. in Masur Auditorium, Bldg. 10. NIH staff and members of the local community are invited to attend.

Genome Lectures Continue

The Human Genome Lecture Series continues this month with a presentation on May 20 by Dr. David Page, assistant professor in the department of biology at Massachusetts Institute of Technology, on "Turner's Syndrome and the Human Y Chromosome: What's Sex Got To Do With It?" The lecture is at 1 p.m. in Masur Auditorium, Bldg. 10.

Page has played a central role in the international effort to identify the genetic mechanisms that determine whether a mammalian embryo becomes female or male. Recently, he isolated two genes that may be responsible for the nongonadal symptoms of Turner's syndrome. He is currently developing a physical map of the human Y chromosome.

For more information on the lecture call 402-0911.
CONTRACEPTION

(Continued from Page 1)

Contraceptive inefficacy may not be solely responsible for the increasing rate of unintended pregnancy. Another explanation may be related to changing societal patterns of marriage and childbearing.

An annual failure rate; the condom, 14.8 percent; the diaphragm, 15.9 percent; periodic abstinence, 25.6 percent, and spermicides, 25.2 percent. While it must be noted that these numbers include failures that occur because of improper use, any failure rate is too high for a couple who want to avoid pregnancy.

Side effects are another significant problem for some contraceptive users. Irregular menstrual bleeding has been associated with Norplant, and weight gain with the pill. One of the most serious side effects related to contraceptive use is pelvic inflammatory disease (PID), a complication that in some cases leads to infertility. PID has been linked to the IUD, particularly the Dalkon shield, which was found to increase a woman's risk of developing PID to 13.3 percent, and, for this reason, was taken off the market. There is considerable controversy, however, over whether other types of IUDs increase the risk of PID. A new study indicates that this risk may be related to only the first 20 days after insertion and may be reduced by administering prophylactic antibiotics.

"IUDs have suffered from a bad reputation related to the controversy surrounding the Dalkon shield, but I think they're emerging from that, and that we'll see more of them in the nineties," said Dr. Christine P. Mauk, assistant director for gynecology and reproductive research, R.W. Johnson Pharmaceutical Research Institute, Raritan, N.J. Certain types of IUDs have also been associated with headache, acne, weight gain, and/or mood changes and hirsutism.

What constitutes the ideal contraceptive? According to Karen Beattie, an associate with the Population Council in New York City, the ideal contraceptive would be:

- reversible
- free of side effects
- convenient to use
- affordable.

"What we have now is a range of methods that have some of the qualities of an ideal contraceptive, but not all," she concluded.

Leading NIH's efforts to develop better forms of contraception is the Contraceptive Development Branch of the Center for Population Research (CPR). New research has yielded various new and promising approaches to regulating human fertility. Dr. Nancy Alexander, CPR's special assistant for contraceptive research, reviewed the past and current approaches to female fertility regulation. She stressed that contraceptive methods for men are limited, but that "changing attitudes have resulted in increased interest in developing more contraceptive options for the male." In animal and limited clinical studies, sperm, ovum and hormonal antigens are being used to develop contraceptive vaccines. To facilitate the studies of contraceptive vaccines, NICHD recently funded two new contraceptive development centers at the University of Virginia and the University of Connecticut Health Center. "Through their efforts, an effective contraceptive vaccine based on antigens unique to sperm and eggs eventually may be available to both women and men," commented Dr. Gabriel Bialy, chief of CPR's Contraceptive Development Branch.

But while a contraceptive vaccine may one day be an effective and acceptable form of pregnancy prevention, it would not protect against STDs. More than ever before, the prevalence of AIDS and other STDs has made disease prevention a critical issue in contraceptive research and development. While barrier methods, which are those that temporarily restrict sperm from entering the woman's upper genital tract, offer some protection against STDs, they are far from foolproof. Different methods offer varying degrees of protection against different infectious organisms, with condoms—used properly—being the most protective. Not all condoms, however, are created equal: only latex condoms—not their thinner, animal-membrane cousins—block the passage of HIV, hepatitis B, and other viruses, as well as the bacteria that cause chlamydia and gonorrhea. In addition, they offer some protection against syphilis, herpes and genital warts, but only if lesions are restricted to skin that is covered by the condom; virus contained in lesions on exposed skin can still transmit infection.

Despite their proven value in preventing STDs, however, even latex condoms are not 100 percent effective. There is always the possibility of breakage and/or slippage, although these risks may be minimized with correct use. "Barriers offer moderate protection from pregnancy and STDs," said Dr. Joseph Kelaghan, medical officer in NICHD's Contraceptive and Reproductive Evaluation Branch. "Their effectiveness depends on the level of use, and the best protection comes from a method the user is comfortable with and is likely to use. We could use a method that separates the use of the barrier from the time of intercourse, but I don't see anything like this on the horizon."

To be fair, contraceptive inefficacy may not be solely responsible for the increasing rate of unintended pregnancy. Another possible explanation may be related to changing societal patterns of marriage and childbearing. People today, at least in this country, expect to have fewer children than in the past; the U.S. average is just slightly over two births per woman. With the potential childbearing lifetime spanning about 50 years, heterosexually active women spend more than half their lives faced with the possibility of becoming pregnant.

Furthermore, women today generally marry later than their mothers and grandmothers did, and thus may have more "contraceptive years" between the initiation of sexual activity and marriage and childbearing. Known as "stage II" to researchers in the field of reproductive development, the period of time between beginning sexual activity and marriage is the prime time for unintended pregnancy. In fact, 82 percent of teen pregnancies are unintended.

"Stage II actually increased during the decade of the eighties," said Dr. Willard Cates, Jr., director of the division of training, epidemiology program office, Centers for Disease Control. "From the standpoint of the joint risks of sexual activity—namely both unintended or unplanned pregnancy and sexually transmitted diseases—this is the stage we worry about. It's the stage that has multiple partners."

Ironically, young women ages 15-19, who are at the highest combined risks of unintended pregnancy and STDs, have the highest rate of not using contraception. Twenty-one percent of women in this age group report using no method of contraception, compared with 12 percent among women ages 20-24; 10 percent among those ages 25-29; and 7 percent among those ages 30-34.

While marriage is generally viewed as a safe
havens from the risks of contracting an STD, this can be a dangerous assumption. "Marriage certainly does not end the need for some people to be concerned about the risk of sexually transmitted diseases," said Dr. Jacqueline Darroch Forrest, vice president for research at the Alan Guttmacher Institute, New York City. "For those who can say that they have two or more partners, the focus obviously is how well one can predict the behavior of those partners and whether they are putting them at risk."

Among both unmarried adolescents/young adults and married couples prior to their first birth, the birth control pill is the leading method of contraception. While the pill offers good protection against pregnancy, it offers no protection against STDs. At this time, the only way to get maximum protection against STDs is to use a condom. "By far the best protection against pregnancy, it offers no protection against STDs," said Dr. Jacqueline Darroch Forrest, vice president for research at the Alan Guttmacher Institute, New York City. "Marriage can be a dangerous assumption. "Marriage certainly does not end the need for some people to be concerned about the risk of sexually transmitted diseases," said Dr. Jacqueline Darroch Forrest, vice president for research at the Alan Guttmacher Institute, New York City. "For those who can say that they have two or more partners, the focus obviously is how well one can predict the behavior of those partners and whether they are putting them at risk."

The problem with relying on two methods is that it is difficult enough to ensure correct, consistent use of even one currently available contraceptive method. If there is one thing that researchers agree on, it is the need for new, better methods that offer both pregnancy and STD protection.

Unfortunately, they also agree that it will be many years before such a contraceptive is available—if, indeed, it ever is. In the meantime, investigators are working on developing better and stronger condoms such as the female condom, which should be available next fall; contraceptive vaccines; improved IUDs; hormone-releasing vaginal rings; hormonal skin patches; new long-acting injectables and implants; improved hormones for oral contraceptives; and different varieties of male contraceptives that would act by inhibiting spermatogenesis.

Laboratory Safety Course Offered For NIH Summer Guest Workers

"How To Survive in Biomedical Research," a course that provides orientation for working safely in NIH laboratories, is being offered again this year by NIDDK and the Occupational Safety and Health Branch of NIH's Division of Safety. Course emphasis is on safety awareness, basic principles of chemsafety and biosafety, and waste management.

The class will be offered in Lipsett Amphitheater, Bldg. 10, from 9 a.m. to noon on the following dates: May 28, June 4, June 18 and July 2. Pre-registration is not required. For more information, call 496-2346 or 496-1200.

Low-Cost Mammography Screening Available at NIH

The Occupational Medical Service of the Division of Safety and the Office of Disease Prevention, OD, have announced plans for the 1992 NIH low-cost mammography screening program at a cost of $60. Within the past year, the State of Maryland passed a law requiring all insurance companies that pay for breast cancer treatment to pay also for screening mammograms.

The slogan for this June's program is drawn from the National Cancer Institute's theme "Do the Right Thing—Get a Mammogram"—a picture that could save your life. NCI describes a mammogram as simply a picture that can detect breast cancer in its earliest, most treatable stage—up to 2 years before other methods. Also guided by NCI's recommendation of a three-point breast cancer detection plan, the OMS program, with services being provided by the University of Maryland Cancer Center, will offer a screening mammogram, a teaching module for breast self-exam and a clinical breast exam. An educational session is offered to all interested employees; it focuses on the role of clinical breast exam and self-examination in the detection of breast cancer.

The quality of the service is marked by its American College of Radiology accreditation, meaning that the equipment is mammography-dedicated and low-dose, and the results are read by board-certified radiologists. Their onsite staff is comprised of female radiology technologists to increase the comfort of employees.

The procedure itself may cause brief, but only slight discomfort, and is not painful. The appointment will take approximately 20 minutes.

Couples Needed for Study

The Uniformed Services University of the Health Sciences' department of medical psychology is seeking married or cohabiting couples, age 45 or younger, in which the female partner experiences severe premenstrual symptoms, to participate in a study of communication patterns. Subjects will be paid. If interested, call (301) 295-3263 and leave message.

See Virginia on Horseback

R&W is once again heading to the country for sightseeing by horseback. Join them on Saturday, June 6 at Marriott Ranches in Hume, Va., in Fauquier County, in the Blue Ridge Mountains. Two ride times are scheduled for that day—10-11:30 a.m. and noon-1:30 p.m. Cost is $20 per person for each ride. All levels of riders are welcome, although participants must be at least age 10. Riders provide their own transportation to the ranch, located about 65 miles west of Washington. Sign up at any R&W location or call 496-4600 for more information.
Annual Drive Begins

Savings Bonds Campaign Kickoff Draws Crowd

Within the confines of the Bldg. 31A patio, the recent kickoff of the NIH U.S. Savings Bonds campaign drew an enthusiastic crowd whose spirits were not in the least dampened by April showers.

"The 1992 U.S. Savings Bonds campaign theme, 'Making American Dreams a Reality' is setting the stage for an outstanding campaign," said George Wilkes, director for special markets, U.S. Savings Bonds Division, Department of the Treasury. "Sales have met or exceeded $1 billion per month this year, exceeding all past campaign records."

Against the backdrop of rain and breezes, "Bonds are a form of enthusiasm insurance," said Jack Mahoney, NIH associate director for administration.

"Look ahead. Bring your financial planning into focus. Buy bonds," said Dr. Carl Kupfer, director, National Eye Institute and acting NIH deputy director for intramural research. NEI is this year’s sponsor institute of the U.S. Savings Bonds campaign.

Dan Napolitano (of the Georgetown Prep faculty) and his partner, Herb Wheatley played an acoustical arrangement that included some vintage Simon and Garfunkel and a stirring rendition of the National Anthem.

The free raffle produced an array of winners. By odd coincidence, three of the four raffle prizes went to employees of NEI. Some institutes are just plain lucky; NEI is the sponsor of this season’s bond campaign.

Movie ticket winners (courtesy of R&W and Cineplex Odeon) were: Carol Cronin, OD (2 tickets); Barbara Di Simone, NEI (4 tickets) and Dr. Sam Zigler, NEI (2 tickets). Dr. Bob Sperduto, NEI, was the winner of the cellular phone, courtesy of GEICO.

U.S. Savings Bonds now outpace bank CD’s. Bonds offer better interest—6 percent guaranteed on bonds held 5 years or longer. Last year, $9 billion worth of bonds were sold, a record that will probably be broken this year because 1992 sales are even more brisk.

Buy bonds today and help make your American dream a reality. For details on purchasing them, see your area canvasser.—Carol Cronin

Trees Planted on Campus

In recognition of Earth Day 1992 and what Maryland Gov. Donald Schaefer called "Tree-mendous Maryland Month," NIH’s Grounds Maintenance and Landscaping Branch, part of the Office of Research Services, joined with students from Stone Ridge Lower School to plant trees on campus on Apr. 25. Five hundred pine seedlings obtained through the Maryland department of natural resources were planted on NIH grounds. Last year during Tree-mendous Maryland Month, more than 1 million trees and seedlings were planted across the state by 35,000 volunteers. This year’s efforts are expected to surpass last year in numbers of volunteers and trees planted.

Photos: Ernie Branson
method of gene targeting. It allows scientists to modify genes selectively or replace defective genes, thereby offering the promise of methods to treat and to elucidate the biology of human genetic diseases. The method will also shed light on understanding genes whose functions had been unknown, and is leading to the development of animal models for human genetic diseases.

Researchers successfully transplanted genetic material into mice about 10 years ago. These early efforts, however, lacked a way to insert a gene into a specific location on a given chromosome. In some cases, the transplants simply failed to function. In others, they caused serious damage, disrupting the function of an important native gene or activating a gene that caused a cell to turn cancerous.

Capecchi’s method built upon earlier research showing that a cell would sometimes replace one of its own genes with a foreign gene if the replacement gene bore a close structural resemblance to the original. In a November 1988 issue of Nature, Capecchi and his coworkers described their strategy for fusing two additional genes to the gene being transplanted. One of these genes allowed a cell to survive the antibiotic neomycin; the other caused a cell to die when exposed to the antiviral drug gancyclovir.

If the new gene found its way to the correct location on the chromosome, it would jettison the gene causing susceptibility to gancyclovir. The neomycin resistance gene, however, would become activated, thereby enabling the recipient cell to survive the antibiotic’s toxic effects. When exposed to both drugs, only those cells that successfully incorporated the transplanted gene would survive; all others would die. In the Nature paper, Capecchi and colleagues showed that the method worked in embryonal mice cells with the transplanted gene replacing the native gene.

In a subsequent paper, other researchers used the targeting technique to add a non-functioning copy of a gene to embryonal mouse cells, then transplanted the altered cells into mouse embryos. By interbreeding the resultant chimeric mice, the researchers produced a strain of mice completely lacking a functioning copy of the gene that had been replaced.

In the NIH Lecture, Capecchi will describe studies that have used the method to block the function of various genes. Preventing a gene’s expression allows researchers to determine the gene’s function during development and in later stages of an original life cycle.

In one area of research, Capecchi and his coworkers have used the method to disrupt the functioning of certain homebox genes—master genes that determine the body plan of a developing organism.

For example, by knocking out the gene known as hox-1.5, the researchers produced mice with facial deformities, defects of the heart and arteries, and small or missing thymus and thyroid glands. The finding led the researchers to conclude that the function of hox-1.5 is to control how the cells in fetal mice assemble to form the head and neck.

In a related body of research, Capecchi and his colleagues are using the technique to investigate the function of various proto-oncogenes—genes, that, through alteration or mutation, can cause a cell to turn cancerous.

Born in Verona, Italy, Capecchi received his B.S. degree in chemistry and physics from Antioch College in Yellow Springs, Ohio, in 1961. He received his Ph.D. in biophysics from Harvard University in 1967. His post-doctoral work at Harvard was conducted under the guidance of Dr. James D. Watson, and included analysis of the mechanisms of nonsense suppression and the initiation of protein synthesis.

In 1969, Capecchi became an assistant professor in the department of biochemistry, Harvard School of Medicine. He was promoted to associate professor in 1971 and moved to the University of Utah as professor of biology in 1973. Since 1989, he has also been professor of human genetics, University of Utah School of Medicine. He also has been a member of the U.S. National Academy of Sciences, and is a grantee of NICHD and NIGMS.
TAMOXIFEN

(Continued from Page 1)

heart attacks for some women. "Nevertheless," said Broder, "it is important to stress that tamoxifen, like any drug, is not without risks in its own right, and that only a well-controlled clinical trial can answer these important questions." NCI is providing $60 million to conduct the trial.

Tamoxifen is currently the most widely prescribed cancer drug in the world. It has been used for almost 20 years to treat patients with advanced breast cancer and since 1985 as "adjuvant," or additional, therapy after radiation and/or surgery for early stage breast cancer.

Dr. Bernard Fisher, NSABP chairman, distinguished service professor of surgery at the University of Pittsburgh, and principal investigator for this trial, explained that for breast cancer, the biological changes that lead to the tumor begin much earlier than physicians can currently detect through clinical breast exams or even mammography. "The breast cancers that are diagnosed today did not begin to develop yesterday," he said. "A number of women who have what appear to be normal breasts without detectable cancers already have the biological changes that will cause the disease."

During these early changes, an intervention such as tamoxifen may be able to halt the development or progression of breast cancer. Used as adjuvant therapy, tamoxifen has been shown not only to prevent recurrences of breast cancer but also to prevent the development or progression of breast cancer in high-risk women. But only a large-scale clinical trial such as the BCPT will provide the vital information necessary to determine whether tamoxifen is a useful prevention drug that should be used by women in the general population who are at risk for breast cancer.

Divided into groups randomly, half of the 16,000 women in the BCPT will take a 20-milligram dose of tamoxifen and half will take a placebo (an inactive pill that looks like tamoxifen) every day for at least 5 years. The company that manufactures tamoxifen (trade name Nolvadex), ICI Americas, Inc., of Wilmington, Del., will provide both the tamoxifen and the placebo without charge.

Neither the participant nor her physician will know whether she is taking tamoxifen or a placebo—a process called "double-blinding." Setting up the trial this way permits the researchers to see the possible benefits and side effects of tamoxifen without the influence of other factors.

Only women who are at a definable increased risk of developing breast cancer are eligible to participate in the BCPT. Women 60 years of age and older are eligible based on their age alone because the risk of developing breast cancer increases with age.

To be eligible for the study, a woman 35 to 59 years of age must have a risk of breast cancer that is equal to or greater than the average risk of a 60-year-old woman. Women who have had a diagnosis of the noninvasive cancer, lobular carcinoma in situ, will be eligible because of their increased risk of developing invasive breast cancer from this disease.

For other women ages 35 to 59, evaluation of breast cancer risk will be made using a modified version of a risk assessment tool created by NCI researchers in 1989, based on information from long-term studies of breast cancer risk factors in white women. NSABP statisticians, under the direction of Dr. Carol Redmond, director of NSABP's Biostatistical Center, have modified this model to take into account the racial differences in cancer incidence. The assessment includes the following risk factors: the number of first-degree relatives (mother, daughters or sisters) who have been diagnosed with breast cancer, whether a woman has any children and her age at her first delivery, the number of times a woman has had breast lumps biopsied, and her age at her first menstrual period.

Fisher warned that healthy women should not be taking tamoxifen in hopes of preventing breast cancer if they are not participating in the trial. "There is a large amount of clinical data that suggests tamoxifen could prevent breast cancer in high-risk women. But only a large-scale clinical trial such as the BCPT will provide the vital information necessary to determine whether tamoxifen is a useful prevention drug that should be used by women in the general population who are at risk for breast cancer."

NEI's Piatigorsky Accepts Honors

Dr. Joram Piatigorsky, chief of NEI's Laboratory of Molecular and Developmental Biology, has received his second award from the Alcon Research Institute for his outstanding contributions to vision research.

He is one of the leading vision researchers in the field of lens crystallins, the soluble proteins that maintain the transparency of the lens. His research has focused on the molecular biology of these proteins, particularly the evolution and expression of their genes. The Alcon Institute, a foundation dedicated to vision research, is funded by Alcon Laboratories, Inc., of Fort Worth, Tex. Piatigorsky received his first Alcon award in 1985.

Piatigorsky has also been selected as a Burrells Wellcome visiting professor for the 1991-92 academic year. The purpose of the visiting professorship program is to stimulate interest and encourage careers in the basic medical sciences. Piatigorsky will visit the University of Louisville in Kentucky on May 20-22 to interact with medical students and faculty and to deliver a lecture entitled "Gene Sharing: The Surprising Use and Reuse of Proteins." The program is administered by the Federation of American Societies for Experimental Biology and sponsored by the Burroughs Wellcome Fund.

Piatigorsky delivered the fourth Donald P. Abbott Memorial Lecture at the Hopkins Marine Station in Pacific Grove, Calif., on Apr. 23. The title of his talk was "Lens Crystallins: Innovation Associated with Evolutionary Changes in Gene Regulation in Vertebrates and Invertebrates."
NIH Employees Honored at DHHS Awards Ceremony

DHHS recognized seven NIH staff members at its 1992 Honor Awards Ceremony. Dr. Jay Moskowitz, NIH associate director for science policy and legislation, assisted DHHS secretary Dr. Louis W. Sullivan and Dr. James O. Mason, assistant secretary for health, with the presentations. The ceremony was held May 1 in the Hubert H. Humphrey Bldg.’s Great Hall.

**Distinguished Service Award**

(Directorate, Category)

Dr. Charles R. McCarthy
Director
**Office for Protection from Research Risks**

Office of the Director

“An recognition of outstanding leadership in developing and implementing policies advancing the protection of human research subjects and humane care of research laboratory animals.”

Dr. Martin Gellert
Chief, Section on Metabolic Enzymes

National Institute of Diabetes and Digestive and Kidney Diseases

“An recognition of his distinguished contributions to our understanding of enzymes that affect DNA topology, and of DNA rearrangements associated with generation of antibodies.”

Dr. Heiner Westphal
Chief, Laboratory of Mammalian Genes and Development

National Institute of Child Health and Human Development

“For contributions to transgenic animal biology, leading to advances in fundamental research, medicine, and biotechnology.”

**Secretary’s Special Citation for Ten Outstanding Employees of the Year**

Parinda Jani
Pharmacy Technician

Clinical Center

“In recognition of sustained outstanding performance safeguarding the health of NIH patients.”

Samuel L. Overton
Diagnostic Radiological Technologist

National Institute of Dental Research

“In recognition of outstanding diagnostic radiological expertise, compassion in caring for patients, initiatives in gaining new skills, and dedication in helping co-workers perform their tasks.”

**DHHS Equal Opportunity Achievement Award**

Dr. Clarence J. Gibbs, Jr.
Deputy Director, Laboratory of Central Nervous System Studies

National Institute of Neurological Disorders and Stroke

“For outstanding contributions to the Department of Health and Human Services by developing underrepresented minority and women scientists for careers in biomedical research.”

Thrifty Savings Plan Open Season, May 15-July 31

The Thrift Savings Plan (TSP) is having another open season from May 15 through July 31. FERS employees who were hired before Jan. 1, 1992, as well as CSRS employees have an opportunity to change their current election, or make an initial election.

Eligible FERS and CSRS employees may elect to contribute to the G Fund (government securities), C Fund (stocks), and/or F Fund (bonds). FERS employees may contribute up to 10 percent of their salary each pay period and will receive matching agency contributions on the first 5 percent. CSRS employees may contribute up to 5 percent of salary, but do not receive any matching contributions.

FERS employees who do not contribute receive an automatic 1 percent agency contribution each pay period. They may choose to distribute this contribution among the three funds.

The features of the plan and directions on how to make a plan election or to change your current withholding are described in the Thrift Savings Plan Open Season Update pamphlet, which will distributed to eligible employees by their ICD personnel office. More detailed information is provided in the Summary of the Thrift Savings Plan for Federal Employees booklet and is available in your ICD personnel office.

Inn Adds Three New Faces

The Children’s Inn at NIH has recently added three new people to its operation.

Judy Immerman has been named development director for the nonprofit home for families with children undergoing treatment at NIH. She brings more than 10 years of public relations experience to the inn. Most recently, she served as marketing, PR and fundraising consultant for the National Parks and Conservation Association, the National Park Trust, and the National Association of Truckstop Operators. Previously she was director of local underwriting at WETA TV/PM.

Stephanie Stepian has been appointed director of volunteers at the inn, coordinating the activities of 177 volunteers who perform a myriad of tasks to keep the inn running 7 days a week. She has served as director of volunteer services and PR at PATH (formerly the Travelers Aid Society of Baltimore) since 1987 and as coordinator of volunteer services at Meals on Wheels in Baltimore, where she administered 850 volunteers at four sites. She is a graduate (with distinction) of Loyola University, New Orleans, and Towson State University, and holds leadership positions in the Maryland Council of Directors of Volunteer Services and in the Maryland Volunteer Network.

Jane Byrnes Gephardt has joined the inn’s board of directors. A native of Columbus, Neb., she graduated from Northwestern University and has worked as an advertising manager and pediatric medical assistant. She has been active in many civic organizations, including the Alexander Graham Bell Association for the Deaf, the Democratic Spouses Forum (her husband is Rep. Richard Gephardt, House majority leader), and Congressional Wives for Soviet Jewry.

Martial Arts Classes Offered

The NIH Taekwondo Club is offering a beginner’s class for adults, women and men, starting May 18. The class will meet in the Malone Center (Bldg. 31C, B4 level, next to the NIH Fitness Center) for 1 hour on Mondays and Wednesdays at 5:45 p.m., and continue for 1 or 2 months until participants can be integrated into the regular club training.

The NIH Aikido Club is also accepting new members. It meets Tuesdays and Thursdays, 6-8 p.m., and Saturdays, 8-10 a.m. For information call Don Murphy, 496-1736.

Bronchitis Sufferers Needed

The Pulmonary Branch, NHLBI, seeks volunteers with chronic bronchitis and daily production of sputum for a complete evaluation and possible therapy with a new trial medication. For more information call 496-3685 or -3632.
The outcomes will be shared with the participating tribes to help them design prevention and control programs for health problems, many resulting from the drastic lifestyle changes experienced by Native Americans. Today, most are more sedentary and eat more fat than in decades past; they also cope with high poverty rates.

Additionally, Strong Heart should help Native Americans through its undergraduate and graduate minority investigator training effort. So far, the study has given research experience to nine minority students—eight Native Americans and one African American. Some of the students have since become health educators working in Native American communities.

Strong Heart's findings will be discussed at the upcoming NHLBI-sponsored Minority Health Forum, which will be held June 26-27 at the Grand Hyatt in Washington, D.C.

The forum will feature discussions of crosscultural trends and risk factors in CVD and pulmonary disease, as well as blood resources. Sessions will cover research, health policy, and community intervention programs.

The forum will kick off with welcomes from NIH director Dr. Bernadine Healy and Lenfant, followed by a keynote address by DHHS secretary Dr. Louis W. Sullivan.

For information about the forum, contact Jake Roberts, registration manager, (301) 951-3275.

Tennis Lessons Available

The NIH R&W Tennis Club is again sponsoring group lessons to be given at the NIH courts weekday evenings. Taught by Ed Wellner, a USPTA-certified instructor, the lessons cost $45 for six sessions. Classes will be held on Mondays and Wednesdays. See your R&W newsletter for details and an application form. For more information, call Wellner, 496-5195.
Americans Spend $6.2 Billion on Asthma Care, Study Says

Americans spent an estimated $6.2 billion in 1990 on asthma-related care, according to a study published in the March 26 issue of the New England Journal of Medicine.

"More cost effective preventive measures and improved primary care could greatly reduce this expenditure," says lead author Dr. Kevin B. Weiss, special assistant to the director of the Office of Epidemiology and Clinical Trials in NIAID's Division of Allergy, Immunology, and Transplantation (DAIT).

In the first such study since 1972, the authors found that of the $6.2 billion spent on asthma care, inpatient services represented the largest medical expenditure, approaching $1.6 billion. Furthermore, asthma is the number one cause of school absenteeism—$10 million lost school days—and costs approximately $1 billion in lost wages for parents who stayed home to care for asthmatic children. Adult asthmatics who stayed home from work because of illness lost wages amounting to $850 million. Medication costs for asthma approach $1 billion.

Dr. Anthony S. Fauci, NIAID director, says, "This study challenges physicians and researchers, as well as patients, to seek interventions to improve the management of asthma and, thus, greatly reduce the costs associated with the condition. The NIAID National Cooperative Inner-City Asthma Study, funded in 1991, will provide a model to accomplish this goal."

The Inner-City Asthma Study was established to design and evaluate a comprehensive intervention program to reduce recurrent asthmatic episodes and asthma-related deaths among African-American and Hispanic children, ages 4 to 11. This 5-year project is under way at eight institutions in seven U.S. cities.

In the article, the authors report roughly 43 percent of asthma's economic impact is associated with emergency room care, hospitalization and death.

"This finding comes at a time when consistent medical care and well-managed drug therapy can prevent asthmatic episodes and deaths," says Weiss, who also is assistant professor of health care sciences and medicine at George Washington University Medical Center. Nearly two-thirds of the asthma-related visits to doctors are with three types of primary specialists: pediatricians, family medicine/general practitioners and internal medicine physicians.

"Health care dollars could go much further by keeping people out of the hospital. Kids not only feel better when they are not hospitalized, but they do better medically and are healthier when treated with consistent quality outpatient care," he says. "Studies have suggested that relatively inexpensive primary-care based intervention strategies such as health education, regular followup and preventive care can reduce hospitalizations."

Approximately 15 million Americans suffer from asthma. About 500,000 asthma-related hospitalizations occur annually. Each year 4,000 people in the U.S. die from asthma. The disease makes it difficult to breathe and asthmatic episodes may range from mild to life-threatening. Asthma is caused by a temporary blockage of the lung's bronchial airways, the tubes that make breathing possible. The obstructions are caused by inflammation and mucus in the airways, a contraction of the muscles surrounding the airways and swelling of the airway.

For the study, investigators used information gathered from the population-based data systems of the National Center for Health Statistics. Study coauthors are Dr. Peter J. Gergen, director of the Office of Epidemiology and Clinical Trials in DAIT, and Dr. Thomas A. Hodgson, chief economist in the Office of Analysis and Epidemiology of the National Center for Health Statistics at the Centers for Disease Control. This research was supported in part by grants from NIAID and the Asthma and Allergy Foundation of America.

Lee Rosner Gives 100th Blood Donation, Recognized by NIH Donor Center

Dr. Judah "Lee" Rosner recently gave his 100th blood donation at the Blood Donor Center. Dr. Susan Leitman, chief of the blood services section in the department of transfusion medicine, presented Rosner with a certificate marking this donation, which marks a milestone for him and the center. With his 100 donations, he has provided life-sustaining blood and blood components to approximately 300-400 patients.

Rosner has given blood at NIH on a continual basis since 1970. He began giving blood while studying at Columbia University in the late 1950's. Rosner attended graduate school at Yale University and came to NIH in 1965. He works in the Laboratory of Molecular Biology, NIDDK.

Surgeons Honor Shulman, NIAMS

At the opening ceremonies of the 59th annual meeting of the American Academy of Orthopaedic Surgeons (AAOS) held recently in Washington, D.C., NIAMS director Dr. Lawrence Shulman was presented a special award for the institute's support of research in orthopaedics.

In presenting the award, Dr. Augusto Sarmiento, president of AAOS, emphasized the academy's commitment to excellence in the fields of orthopaedics and related musculoskeletal and skin diseases. Recipients included Dr. John J. Voloshin, professor of orthopaedic surgery at the University of Pennsylvania, and Dr. Robert F. Stauffer, chairman of orthopaedic surgery at the Cleveland Clinic Foundation.

Dr. Lawrence Shulman research and read the following inscription on the award plaque: "The American Academy of Orthopaedic Surgeons expresses appreciation to Lawrence E. Shulman, M.D., Ph.D., and to the National Institute of Arthritis and Musculoskeletal and Skin Diseases for their leadership and support in enhancing and promoting orthopaedic research around the world."

Accepting the award, Shulman remarked, "I'll remember this moment on behalf of all of us at the National Institutes of Health for many years to come. Those of us who are at your institute (NIAMS) would like to express our deep appreciation for your collegial support and steadfast interest in the research programs that are so important to us all."

Shulman congratulated the academy for advancing the health of the American people through research, particularly through its recent establishment of a Center for Research and Augmentation of the activities of the AAOS Council for Research.

Rosner remarked on the significant changes in the blood donation process over the years. He said that there are better "gadgets" now than when he first started donating blood. For example, the fingersticks for testing the iron level in one's blood are painless compared to 20 years ago.

Rosner noted that completing his 100th donation was a source of pride and accomplishment for him. He even brought a new donor with him. The Blood Donor Center congratulates Rosner on his milestone and hopes to see him around for many years to come. Anyone interested in donating blood for the Clinical Center can call the Blood Donor Center, 496-1048.
NINDS Engineer Designs Monitoring System for Patients with Epilepsy

A unique electronic monitoring system for patients with epilepsy is now being used in the newly renovated 5 West neurology ward at the Clinical Center. This system is essential to the clinical and research activities carried out by the Epilepsy Research Branch (ERB) of the NINDS. The ERB provides care to patients with uncontrolled epilepsy.

The system is also used to monitor patients with surgically implanted subdural electrodes. Such patients are studied to gather information about the type and location of the patients' habitual seizures and also to minimize the risk and discomfort to patients undergoing prolonged subdural electrode implantations.

This innovative system was designed and set up by Hugh Malek, chief engineer in the ERB. He developed compatible systems and components capable of 24-hour data recording and simultaneous video date/time and electroencephalographic (EEG) time code recording. Patients can be monitored by medical and nursing staff with minimal intrusion, allowing for greater patient privacy while giving professional staff the ability to perform additional duties.

Malek not only designed the electronic components for the system, but also a new telemetry command room and special rooms where protocol patients are monitored. An elaborate layout connects these rooms with areas where health professionals monitor functions and areas with remote recording facilities.

Malek modified commercially available equipment to serve the special needs of patients undergoing subdural monitoring as well as ‘beehive units’ that use 21-channel EEG machines with time codes to print out data that accurately pinpoint the time of a particular type of seizure. Video, audio and EEG capabilities are combined to accomplish this objective. These beehive units have total mobility and can be used to monitor patients with implanted subdural electrodes as well as outpatients with seizures and patients with sleep disorders.

In addition, Malek developed a shoulder pack as part of the overall monitoring system to give patients flexibility to move around without being totally confined to their rooms. A transmitter, contained within the shoulder pack, was developed to provide a compact, less expensive and more maintenance-free unit than previously existed.

The unit was designed and constructed in collaboration with a major electronics firm for use at NIH. A mobile antenna is now being developed to allow patients to engage in even more activities outside the hospital room.

Under Malek’s engineering direction the ERB regularly provides electronic engineering services to research scientists at NIH and collaborating research centers. Video, audio, telemetry and EEG systems along with systems still being developed are being combined to provide highly detailed information on patients with a wide variety of convulsive disorders. —Frank Nice

NIMH Seeks Women Volunteers

NIMH is seeking volunteers to participate in a study investigating the cause of perimenopause or menopause-related hot flushes. Volunteers must be medication-free. Hormonal evaluation will be performed, and payment is provided. For information, call Jean Murphy, 496-9673.

Recurrent Statistical Problems Subject of DCRT Workshop

The DCRT Computer Training Program is offering a workshop on “Recurrent Problems in Data Analysis” on May 18, 20, and 22. This workshop covers several frequently occurring problem areas in statistical data analysis. Class size is small and students are encouraged to bring in data analysis problems from their own labs or institutes. “I designed this course to be interactive in nature so that the discussion of one person’s problems may help in solving someone else’s problem,” said Dr. James Malley, a biostatistician of the Laboratory of Statistical and Mathematical Methodology, DCRT.

“This course was set up to address the many problems in data analysis that I see over and over again in my consulting and that are often not addressed in the standard one- or two-semester statistics courses,” continued Malley.

Discussion will include the following topics: problems in regression analysis; ANOVA with unbalanced data, i.e., analysis of variance of unequal group sizes; multiple comparisons and simultaneous inference; transformations and nonlinear regression; missing data and the treatment of outliers, i.e., what to do when data values are missing, suspicious or extreme.

Reference materials outlining problems and solutions will be distributed to all participants. “We are looking at the underlying science behind their individual problems and the range of statistical options the researcher may have available,” concluded Malley.

The workshop will be given from 9 a.m. to 12 noon in Bldg. 12A, Rm. B51. To reserve a space, call 496-2339.

Archbishop Voskan Kalpikian, bishop of Greece of the Armenian Orthodox Church, visited NIH recently to explore the establishment of contacts between NIH and Armenian biomedical researchers. The archbishop (I) was greeted by Dr. Philip E. Schambra, director of the Fogarty International Center.
Charles McCarthy Retires After 21 Years at NIH

Dr. Charles McCarthy, director of NIH's Office for Protection from Research Risks (OPRR) since 1978, retired Mar. 31. He spent more than 21 years in NIH's Office of the Director.

One of the interesting things about working in OPRR, McCarthy said, has been the unusual structure of the office. Although the office is physically located on NIH's campus, staffed by NIH employees and its director reports to NIH's deputy director for extramural research, OPRR prepares and implements policies and regulations that govern all research conducted or supported by any DHHS component. This includes all NIH-supported research both extramural and intramural. OPRR responsibilities are delegated by the secretary.

In June 1991, OPRR was assigned a lead role in implementing a Common Federal Rule for the protection of human subjects that spans all government departments and agencies conducting human subjects research. Under this rule, research involving human subjects done by the Department of Energy or the Defense Department, for instance, is governed by rules patterned after those of DHHS.

Although technically limited to regulation of federally funded research, the office affects nongovernment biomedical research policies worldwide.

What McCarthy said he'll miss most of all after leaving the position is the opportunity to work daily with a wide variety of professionals across the globe.

"I had the privilege of working with dedicated, intelligent people at every level," he said. "I'll plan to come back to do research here, though.

McCarthy is retiring from NIH, but not from what can be seen as a fulltime occupation. Having already lined up a position as senior research scholar at Georgetown University, he will be writing a book on the development of research ethics and public policy.

"I'll be able to stop working 60-hour weeks and cut back to 30 hours," he said, joking, "at least that's what my wife tells me I'll be doing."

McCarthy came to NIH in 1972 as a program analyst in the NIH Division of Legislative Analysis, where he became chief of the Legislative Development Branch in 1975. In 1978, McCarthy was appointed to two fulltime positions at NIH—OPPR director and staff director of the HEW Ethics Advisory Board, which oversaw controversial research and widened public debate on such research.

As part of McCarthy's responsibility as head of OPRR, he implemented the recommendations of the National Commission for the Protection of Human Subjects. The commission made recommendations to the DHHS secretary on such topics as research involving pregnant women, human fetuses, prisoners, children and the mentally disabled; the autonomy and consent of research subjects; and the equitable distribution of research benefits and burdens to women, minority and poor research subjects.

McCarthy served as liaison to the commission during the late 1970's, a time when such crucial topics were only beginning to have prominence in the research community and in the media.

One recommendation of the commission was to strengthen institutional review boards (IRBs), which could monitor research more closely in individual regions. McCarthy considered the commission's position on IRBs pivotal and is proud that its recommendation was implemented during his tenure.

"We now have more than 3,000 institutional review boards nationwide and nearly 580 overseas in 80 different countries," he said. "The quality of these IRBs is lots better than it used to be, but they're not yet where they should be."

Although protection of the rights and welfare of human subjects was listed as OPRR's top priority, McCarthy spent much of his time in the decade of the 1980's developing policies for the care and use of laboratory animals.

"I have always considered humans to be our first responsibility," he said, "but antivivisec tionists and their influence on the congress elevated concern for animals to the top of the priority list for several years."

McCarthy said that he regards the development and implementation of the Public Health Service Policy for Humane Care and Use of Laboratory Animals as OPRR's most significant contribution in the area of animal welfare. The PHS policy established performance standards based on professional judgment as the best criteria for sound husbandry and experimental use of animals. "It paved the way for adoption of almost identical standards by the Department of Agriculture," he said, "and enabled the two departments to harmonize their efforts. The result has been a vast improvement in humane care and use of animals and equally important upgrading of the science based on animal research."

"We have demonstrated that sound ethics and good science go hand in hand," he continued. "That is true for research involving humans and equally true for research involving laboratory animals."

McCarthy has had the opportunity to see direct effects of his work reported in the media. A framed front-page newspaper article announcing the 1979 birth of Louise Brown, the first human birth by in vitro fertilization, occupies a prime spot on the wall above his desk. The EAB's report on in vitro research was published the same year.

"Suddenly all our hearings were on television," he recalled ruefully.

An ordained Roman Catholic priest who was laicized in 1971, McCarthy also taught college-level courses in philosophy and political science at St. Paul's College, Catholic University and George Washington University in Washington, D.C.

"It's been a very tough, complex decision to retire," McCarthy concluded, "but it takes a very vigorous person to do this job. I'm going to step aside before anyone says, 'He stayed too long.' "—Carla Garnett

NIDDK Begets Bulletin Board

A new electronic bulletin board has been set up to give researchers around the country fast, up-to-date information on upcoming meetings and current research solicitations sponsored by the Division of Kidney, Urologic, and Hematologic Diseases, NIDDK.

The bulletin board, NIDDDKUH, has two directories with one file in each. The MEETINGS directory contains the DATES file and the RFAS directory contains the RFAS file. Users can display the contents of the files on their computer screen or download them to read later.

Using NIDDDKUH is easy. Sign on to Wylibur and at the > prompt type "enter bbs niddkuh." (Don't type the quotes.) Menus guide users through the bulletin board.

Questions or comments about NIDDDKUH may be directed to Patricia Coughlan, NIDDDKUH moderator, Bldg. 31, Rm. 9A17, 496-6325, or left in the conferences section of the bulletin board.

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Director of NIH Library, Carolyn Brown, Retires

Carolyn Brown often joked that the first thing she was going to do when she retired was clean her closets. Those who worked with her at NIH, where she served as director of the NIH Library, cannot imagine that anyone who brought so much organization to the library could have closets that truly need cleaning.

In 10 years as the director of the NIH Library, Brown oversaw many changes, including a change to an automated catalog and circulation system, the improvement and expansion of bibliographic search services, and more rapid and efficient photocopying.

Before coming to the NIH Library, Brown served as director of information management and services in the Executive Office of the President. She was also chief of user services, library and information services at the National Oceanic and Atmospheric Administration from 1977 to 1980; chief of information services, National Bureau of Standards Library from 1975 to 1977; and librarian for the Naval Medical Research Institute from 1972 to 1975. Her first librarian position was at NIH, as librarian for the Department of Clinical Research and Training from 1968 to 1972.

Her adventures with her husband, a professor, writer and editor, include two periods of living abroad in Germany, Spain and Mexico, among other places.

Brown is a member of the American Association for the Advancement of Science, American Library Association, Special Libraries Association, and Medical Library Association. She has received several performance awards and is listed in Who's Who in America.

Brown cites the change to an automated system as one of her biggest challenges—and one of the changes of which she is most proud. "Putting in a new automated system is a complex and harrowing process," she recalled. "The staff was wonderful and worked very hard on this. We went through three different systems and the last one is a great improvement in allowing access to the collection. Before I left we were adding a network to make it even easier."

Brown says, "I loved my time at NIH. I loved that library even before I started to work there. It was very satisfying to work with the scientists and NIH staff. They were people I could respect, like and admire."

Her retirement plans, aside from closet cleaning, include exploring the possibility of a move to California or Arizona. She plans on devoting more time to birdwatching and gardening, and to developing new interests.

At her retirement party, NCRR director Dr. Robert Whitney, Jr., praised Brown for the improvements she had made in the library, "You have fostered a spirit of unity that has produced a cooperative effort in the service of the library's users and their research," he told her. "We are proud to have served with you."

New Telecommunications System for PHS Awarded to C&P

The Public Health Service has awarded a 10-year contract to the C&P Telephone Co. of Maryland to design, install, operate and maintain a new local voice and data switching system. The system will initially serve 32,000 lines at 23 PHS locations in Montgomery and Prince Georges Counties, including NIH and Parklawn in Rockville.

The new system replaces the existing Centrex telephone service with a dedicated network that can, through the technology of integrated services digital networking (ISDN), support simultaneous voice and data transmissions over the same cable. The main switching equipment will be located in Building 10 and at C&P's central office on Montrose Rd. These two sites will be linked by fiber optic cable.

The system is to be operational by April 1993 using NIH's existing phones. Each PHS agency will then, as its needs and resources dictate, have the opportunity to replace some or all of its telephones with new instruments.

C&P Telephone is the prime contractor, leading a team comprised of AT&T and Cincinnati Bell Information Systems. AT&T will provide a digital ISDN switch and assorted customer equipment; Cincinnati Bell, management support software. The support system will provide information such as telecommunication traffic and maintenance reports, thereby giving PHS maximum operational control. In addition, the system can be updated with the latest technological advances over the life of the contract in order to maintain a state-of-the-art network.

Implementation of the new system has already begun. C&P technicians will inventory all cable; employees may see them in the hallways as they work in the telephone closets. At a later date, these technicians will be surveying each office to verify every telephone and data line. NIH's patience and cooperation during this stage of system design are appreciated.

Steinberg Receives Award From Montgomery County

Mildred Steinberg, a program assistant in NCI's Laboratory of Pathology, recently received an award from Montgomery County's Department of Family Resources, Division of Elder Affairs' Job Support for Seniors. The award, presented annually, recognizes outstanding older workers who have impressed their coworkers with their energetic and inspirational work behavior as well as employers (businesses and corporations) who have demonstrated exemplary commitment to hiring senior employees.

Steinberg, who will be 78 this year, has been at NIH since July 1961.

Dr. Lance Liotta, chief of the laboratory and who nominated Steinberg for the award, says, "She has the rare ability to juggle dozens of diverse projects at once and complete all of them ahead of schedule. Her commitment, compassion and wealth of knowledge based on her experience have served as both a secure foundation and a guiding light for the Laboratory of Pathology since 1961."

One of seven individual awardees, Steinberg was the only federal employee to be recognized at the breakfast ceremony held recently at the Pooks Hill Marriott in Bethesda.

Steinberg enjoys her job at NIH and says she has no plans to retire. "I am glad they (the government) have done away with the mandatory age for retirement. My boss is great to work with. I consider him a friend and not just a boss. Also, working with the bright, young people in the lab keeps me young at heart."

Steinberg, born in Baltimore and reared in Detroit, moved to Rockville in 1931 with her husband, now deceased. She has a daughter, a son, a 30-year-old granddaughter, and a great grandson.
The NIH Training Center of the Division of Personnel Management offers the following:

Courses and Programs

**Management and Supervisory**
- Managing and Supervisory: 496-6371
- Managing Imperatives Creatively: 5/18
- Effective Listening and Memory Development: 6/9
- Ethical Issues in Scientific Research: 6/9
- Attitudes—How They Affect Productivity in the Work Environment: 6/17
- Practical Approaches to Stress Management: 6/18
- Managing Behavior in the Work Environment: 6/24
- The Right Person/The Right Job: 6/24

**Office Operations and Administrative Systems Training**
- Managing Filing and Maintenance: 5/21
- Listening and Work Relationships: 5/27
- Foreign Travel: 6/30
- Commissioned Officers Leave and Attendance: 6/19
- Property Management: 6/24
- IMPACT System for MSCs: 5/18
- IMPACT for Administrative Staff: 6/18

**Special Courses**
- Managing Unionized Employees Effectively: 6/4
- Retirement Planning Seminar (overflow): 6/16

**Personnel Management**
- Advanced Classification: 5/20
- IMPACT System for Personnelists: 6/10
- KSA Methodology: 6/24

**Ty Jaouni Retires from NHLBI**

Taysir "Ty" Jaouni, is retiring after 30 years at NIH. An organic chemist with a B.Sc. from the University of California, Berkeley, and an M.Sc. from the University of Colorado, he has worked in NHLBI since coming to NIH in 1960.

He started work with Nobel Laureate Marshall Nirenberg and later moved to the Laboratory of Biophysical Chemistry with Dr. Henry Fales in 1969, where he is listed as an author on papers in many fields. Jaouni has an intense interest in economics, in which he also has both B.A. and M.A. degrees from the University of California. He worked in this field as a teaching assistant at the University of Texas before switching to chemistry. In the chemical arena, he has also been employed as a lab technician at Berkeley, teaching assistant in chemistry at Colorado, and physical science aid for the Department of Agriculture, in Albany, CA.

Jaouni was born in Jerusalem, Palestine, and came to the United States in 1946 for his undergraduate and graduate degrees. His fluency in Arabic has seen him often sought in the Clinical Center as a translator for patients from the Near East; his retirement plans include returning to observe the changes there and in Europe. With his wife Dr. Kay Jaouni of NIAID and his son, Taysir, Jr., he will also continue to manage the farm he owns in Pennsylvania.

**Former NIDDK Drug Researcher Everette May Honored**

Dr. Everette L. May, former chief of NIDDK's section on medicinal chemistry, has received two major research honors for his contributions to medicinal chemistry and international scientific exchange.

On Mar. 29, the Pharmaceutical Society of Japan inducted May as an honorary fellow in a ceremony at Kyushu University. On Apr. 7, he received the American Chemical Society's 1992 Alfred Burger Award in medicinal chemistry. This award, sponsored by the pharmaceutical company SmithKline Beecham, is made biannually for outstanding contributions in medicinal chemistry.

May was a staff scientist at NIH for 36 years and headed NIDDK's section on medicinal chemistry from 1960 to 1977. Since 1977, he has been professor of pharmacology at the Medical College of Virginia, Richmond. The Alfred Burger Award is the highest honor in medicinal chemistry awarded by the ACS. It recognizes May's significant contributions to analgesic and antimalarial research.

The Japanese award recognizes May's contributions to medicinal chemistry, his training of Japanese postdoctoral fellows, and his contributions to the advancement of scientific exchange between NIH and Japan.

May is best known for synthesizing a group of potent analgesics known as the 6,7-benzomorphans. These compounds are more potent than morphine but have fewer side effects and less potential for abuse. He also discovered a lifesaving antimalarial drug that was used extensively during the Vietnam war.

A Virginia native, May received a Ph.D. in organic chemistry from the University of Virginia in 1939. Other honors received include the Nathan B. Eddy Award, which is the highest award of the College of Problems of Drug Dependence. —Eleanor Mayfield

**Barbara Underwood, NEI Researcher, Receives Nutrition Awards**

Dr. Barbara A. Underwood, NEI's assistant director for international program activities, has been recently selected as this year's recipient of both the Borden Award and the Conrad A. Elvehjem Award.

The Borden Award, which was established by Borden, Inc., in 1944, is presented each year to an American or Canadian scientist for distinctive research on the nutritional significance of food. The Conrad A. Elvehjem Award, which was begun by Nabisco Brands, Inc., in 1966, is bestowed annually on an investigator for distinguished public service through nutrition science.

In winning both honors, Underwood was cited for her distinguished career in nutrition research and her leading role in vitamin A investigations worldwide.

Underwood received her B.A. in both food and nutrition and biochemistry from the University of California, Santa Barbara, in 1956. She then earned an M.S. in these subjects from Cornell University in 1958, and received her Ph.D. in nutritional biochemistry from Columbia University in 1962.

Since joining NEI in 1982 following a successful academic career, Underwood has been recognized internationally as a leader in vitamin A research. Her studies have been instrumental in the development of improved methodologies for the assessment of vitamin A status in humans, and they have helped define the impact of subclinical vitamin A deficiency throughout the world.

Although vitamin A deficiency, caused by a low dietary intake of this essential vitamin, is rare in the United States, it is a debilitating condition that each year affects nearly 10 million children clinically and another 30 million children subclinically in various developing nations.

Vitamin A deficient children are susceptible to death from common childhood infections such as acute diarrhea, severe respiratory infections, and measles. They are also at high risk for childhood blindness, which is associated with early death in many developing nations.

"It is always gratifying to have your research and service efforts recognized," Underwood said. "But I realize how much of the recognition should extend to colleagues around the world who have been supportive throughout my professional career."

"I am especially grateful," she adds, "to the mothers and children around the world who have tolerated my entrance into their lives and who have taught me the relevance of nutrition."

Underwood received both awards during the American Institute of Nutrition's annual dinner in Anaheim, Calif., recently.
Mar. 30 marked a special day for a former NIH employee. Dr. John A. Trautman, director of the Clinical Center when the hospital first opened, celebrated his 90th birthday with his family in Memphis, Tenn.

Trautman joined the CC in 1951 when the building was still under construction. He says his most difficult task as director was to pull together a staff for the hospital.

"We wanted to get the most qualified people we could find to head the departments," he recalls. "And we were pretty successful.

"Some people were concerned about the growth (potential), but a good deal has been built around the Clinical Center since I left. The community was generally very supportive (of the new Clinical Center) ... We received support from around the world."

Some people, however, were concerned the CC "might engulf all the institutes into one package and they would lose their identity," Trautman adds. "Some felt that the Clinical Center director might have too much to say about what individual institutes did. But I was just concerned that they had what they needed. There was no thought in my mind that the Clinical Center would become an end-all."

After 5 years of intense planning and construction, the CC was dedicated on July 2, 1953. More than 1,500 people attended. Following the ceremony, about 3,700 people toured the new facility.

Four days later, the first patient was admitted. According to back issues of the NIH Record, an elderly man "from the rural area north of Bethesda" was one of 17 people admitted as inpatients that day and assigned to 8 East. Another person was admitted on an outpatient basis. Protocols dealt with cancer, rheumatoid arthritis, diabetes, heart disease and hypertension.

A year and a half after the hospital opened, Trautman left NIH to become the medical officer in charge of the PHS hospital in Fort Worth, Tex. The 1,000-bed facility focused mostly on the study and treatment of psychiatric disorders and narcotics addiction.

"It was very challenging," Trautman recalls. "My life in PHS consisted of going from one hospital to another."

Born on a farm near Lake Benton, Minn., in 1902, Trautman received both his bachelor's and medical degrees from Creighton University in Omaha, Neb. He entered PHS in 1929, serving his internship at the Chicago Marine Hospital.

During his career, Trautman was in charge of the Staten Island, Cleveland, Fort Worth and New Orleans PHS hospitals. He also served in PHS facilities in Washington, D.C., San Francisco, New Orleans and Portland, Me. Upon retiring from PHS in 1964 after 35 years of service, he joined the state health department of Louisiana.

Over the years, his research encompassed the use of various agents for treatment of poisoning from cyanide gas; the use of artificial fever therapy in the treatment of venereal diseases, leprosy and various arthritis and inflammatory eye conditions; and methods for speeding up treatment using arsenic compounds for syphilis, and sulfonamide drugs for various types of venereal diseases.

A year and a half ago, Trautman and his wife of 67 years moved to a retirement home in Memphis where they are "sitting very comfortably," he reports. "We could find to head the departments," his family in Memphis, Tenn.

A year and a half after the hospital opened, Trautman recently celebrated his 90th birthday with his family in Memphis. He and his wife of 67 years are "sitting very comfortably," he reports. They have 42 family members in Memphis, including 17 great-grandchildren.

Dr. John A. Trautman, the second director of the Clinical Center, served in that capacity from 1951 to 1954.