Goal for 1990's

Women To Become Highest Priority in HIV Fight

By Rich McManus

As the number of new AIDS cases continues to rise most sharply among women, particularly poor women of color, NIH will make their needs paramount in the coming decade, said Dr. Anthony S. Fauci at NIH's observance of World AIDS Day on Nov. 30.

"We will make women the highest priority of the 1990's," declared the NIAID director, who also heads NIH's Office of AIDS Research. New and innovative programs aimed at meeting the special needs of women with AIDS will be launched in the nineties, a decade during which the number of HIV infections in women is predicted to equal the number in men.

"By the end of 1992, which is not that far off, the World Health Organization estimates that there will be more than 350,000 new cases of HIV disease in women," said Fauci. "In the next 25 months, the number of women who get AIDS will exceed the number of men who were diagnosed in the first 10 years of the epidemic."

At the moment, the Centers for Disease Control reports that diagnosed cases of AIDS rose 29 percent among women this year compared with 18 percent among men. "AIDS is one of the top five leading causes of death in Black women ages 25-44," Fauci said. "By 1992 it will be the leading cause."

Whereas the ratio of men to women with AIDS in the United States has been about 8 to 1, it is now approaching 1 to 1 in some inner cities, said Fauci, describing the increasing incidence of heterosexual infection and re-infection as "a vicious cycle." Once considered a disease of gay and bisexual white males, AIDS has undergone a dramatic demographic shift, and is becoming an illness of minority men and women. According to CDC, 72 percent of all U.S. women with AIDS are either Black or Hispanic.

Conceding that NIH's interest in AIDS is more scientific than sociologic, Fauci nonetheless emphasized the importance of considering cultural realities—that women's roles and statuses are largely different than men's in American society—in planning new strategies.

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New AIDS Research Facility

A-Wing Addition Rises on East Side of Bldg. 10

By Rich McManus

A major addition is currently being grafted atop the four existing floors of Bldg. 10's A wing; the $11 million fast-track project, due for completion in fall 1991, will add new NCI and NIAID laboratories to the fight against AIDS.

The first of two construction phases—erection of the steel superstructure—began last March and will soon be completed. Phase two has just begun and will result in state-of-the-art laboratories whose flexibility and space are unequalled in the Clinical Center.

"It's pretty hard to start a construction project four stories up from the ground," said Donald A. Sebastian, the project officer for the Division of Engineering Services who is overseeing completion of the wing's first phase. "It's a very intricate, exacting type of construction—we call it our Swiss watch."

"The whole project, from design of the addition to finished construction, will take a little more than 2 years," he continued. "For a job of this size and intricacy, that's pretty fast."

The B1, B2, first and second floors of the existing A wing will remain unchanged, aside from some work to the loading dock area. The roof of the current A wing will become mechanical or "interstitial" space, allowing for pipes and ducts. The next three stories will align with existing floors in the adjacent B wing and will be worker-occupied. The top floor will be entirely devoted to mechanical space.

The first usable floor of the addition will be utilized for office space divided in thirds for NCI, NIAID and the assistant hospital administrators from the CC.

The next two floors—comprising some 11,000 square-feet each and including 28 lab-

(See A WING, Page 6)

Transgenic Mice Used

NIAMS Grantees Create Animal Model of Human Disorder

By Lauren E.D. Ward

A protein molecule long known to be a genetic marker for a group of arthritic diseases called spondyloarthropathies may be a major cause of these disorders, according to a newly developed animal model reported in the Nov. 30 issue of the journal Cell.

For the first time, researchers have used transgenic technology to produce two strains of inbred rats that carry the human genes for the tissue type HLA-B27, which is found in a large percentage of patients with the spondyloarthropathies. Beginning about 2 to 3 months after birth, these transgenic rats spontaneously developed almost all of the symptoms of the spondyloarthropathies, including inflammation and destructive changes of the spine, large joints, bowel, skin and other organs.

"I am extremely pleased that, some 17 years after the genetic marker HLA-B27 was found to be present in the vast majority of patients with these forms of arthritis, an excellent team of researchers has developed an animal model in which a disorder occurs that strikingly mimics virtually all the manifestations of these distressing and disabling diseases of young people," said Dr. Lawrence E. Shulman, director of NIAMS. He spoke at a press conference.

(See NIAMS, Page 4)
WOMEN

(Continued from Page 1)

of treatment and prevention.

Fauci prefaced his remarks with a story of his first female AIDS patient, Sunnye Sherman, who was treated at NIH before she died 5 years ago. Describing her as an inspiration, Fauci said she was also "insightful, out­rageous, and very funny—a tireless advocate for people with AIDS." Despite five bouts with pneumonia, Sherman "had an enormous impact on all of us. She made people less afraid of HIV."

Because the impact of AIDS on women requires a new approach, Fauci said NIAID would coordinate a national conference Dec. 13-14 on women and HIV infection.

Until now, women have been viewed largely as vectors of viral transmission, Fauci said, either as mothers of babies who might get AIDS or as prostitutes who might pass HIV on to clients. "They have not been depicted as patients themselves who will get sick, suffer and die." Medicine has been slow, he acknowledged, to pinpoint the subtle ways that HIV infection presents itself in women.

"We must focus our resources on minority women, who are disproportionately affected by AIDS," he said before reviewing clinical trials and outreach programs in NIAID, NCNR and other institutes that take women as their focus.

Returning to a theme he has emphasized for the past 3 years on World AIDS Day, Fauci underlined the importance of basic biomedical research—unfettered by considerations of age, race or gender—on advances against disease.

"The spinoffs of basic research will benefit humanity greatly," he said. "That's the greatest accomplishment of NIH. It's what we do best."

Calling for a science that gains its usefulness only through compassion was S. Denise Rouse, a PHS officer who directs the D.C. Women's Council on AIDS. Founder of the first support group in Washington for women with AIDS, Rouse described love, laughter and outside Masur Auditorium.

The program ended with a brief film on the Names Project quilt, which commemorates in art the lives of some 13,300 people who have died of AIDS. A number of quilt panels were displayed in the amphitheater and outside Masur Auditorium.

The Names quilt, started in June 1987, has been to 14 countries and has been seen in most of the major cities in the United States, said David Lemus, executive director of the Names Project. "Originally it was a banner for an angry protest," he said, "but it is now a symbol of love and caring. We will concentrate on presenting it to audiences of women this year."
Laser Treatment for Glaucoma May Be Preferred

By Judith Stein

Results from 2 years of patient followup in a randomized clinical trial suggest that argon laser therapy may be a safe and effective alternative to eyedrops as a first treatment for patients with newly diagnosed open-angle glaucoma. However, because open-angle glaucoma is a chronic disease, study patients will continue to be followed up to 3 additional years to further assess the value of both treatments.

The Glaucoma Laser Trial (GLT), sponsored by the National Eye Institute, is being conducted at 11 centers including eight clinics. After 2 years of treatment, the mean intraocular pressure of eyes in the "laser first" treatment group measured about two points lower than that of eyes treated with eyedrops only. These eyes generally required less medication to control pressure than the eyes treated with eyedrops only. Visual acuity and visual field changes were the same for both groups of eyes.

In open-angle glaucoma, minute changes in the flow of fluid that nourish the tissues in the front of the eye. If these fluids fail to drain properly, the resulting increased pressure inside the eye can eventually damage the optic nerve.

Many eye specialists begin glaucoma treatment with eyedrops, either to improve fluid drainage or to slow fluid formation. If drops alone do not bring the pressure to an acceptable level, the doctor may also prescribe pills. If these medicines fail, the next step is either surgery to create a tiny hole in the coat of the eye or to improve fluid outflow by treating the drainage tissue with a laser. In an attempt to avoid use of medicines, some doctors recently have started open-angle glaucoma treatment with the argon laser.

Medical and laser treatments each have advantages and disadvantages. More is known about medicines, but they must be used daily and can produce annoying and sometimes serious side effects. Laser treatment is easy to administer, is relatively painless and may reduce or eliminate the need for medicines. However, laser treatment does not always reduce elevated pressure and, in rare instances, may even increase it.

The purpose of the GLT is to evaluate the relative efficacy of the two treatments. To ensure that each patient received whichever treatment proved to be the better treatment in one eye, all 271 patients received both types of treatment, one type in each eye, as determined by chance or lottery (randomization). If the initial treatment (either laser or eyedrops) failed to reduce adequately and sustain control of pressure, additional treatment with eyedrops was prescribed, according to a set sequence. The treatment steps in the sequence progressed from low to high doses of single medicines and then to combinations of medicines at various dose levels.

After 2 years of followup, laser treatment alone was sufficient to control pressure in 44 percent of the eyes, compared to 30 percent of the eyes treated with the antiglaucoma drug timolol alone. The percentage of laser-treated eyes that could be controlled with laser alone or laser with timolol was 70 percent. Although these early results for laser treatment look promising, after 2 years of followup more than half of the laser-treated eyes needed one or more medications to control intraocular pressure.

NEI director Dr. Carl Kupfer cautions that, "Glaucoma is a chronic disease with a variable rate of progression and eye specialists need to await longer-term results of the GLT Follow-up Study in their overall evaluation of these forms of treatment for their glaucoma patients."

Delgado Heads DEO Branch

Carlos M. Delgado has joined the Division of Equal Opportunity as chief of the Equal Opportunity Branch.

In 1965, Delgado completed his degree in business administration with majors in management and industrial relations at the University of Puerto Rico. In 1970, he earned a juris doctor degree with emphasis in administrative and labor laws from the Catholic University of P.R. Law School.

In October 1973, he began his federal career with the Appeals Review Board, U.S. Civil Service Commission (now Merit System Protection Board) as an appeals examiner. He has extensive knowledge, training and experience in the EEO and civil rights fields, having held positions in all the program components.

During his federal career, Delgado has held the positions of senior appeals officer with the Office of Review and Appeals, EEOC; chief, supervisory EEO investigator (HUD); deputy director and assistant director for EEO programs (Navy Department and NASA, respectively), and senior EEO specialist at PHS/EO before joining NIH.

He is knowledgeable in areas such as affirmative employment, complaints, and contract compliance.

In his new position, he works with a staff of professional special emphasis and affirmative employment program managers in fostering and promoting equal opportunity principles throughout NIH.

Research Participants Needed

The Laboratory of Neurosciences, NIA, seeks interested patients with diagnosed or suspected Alzheimer's disease and mild to moderate memory loss to participate in inpatient/outpatient drug trials. Candidates will be screened for other health problems. For more information call (301) 496-4754, Monday through Friday 9 a.m. to 5 p.m.
announcing the results Nov. 29 at the University of Texas Southwestern Medical School in Dallas.

The breakthrough resulted from the collaboration of two laboratories in Dallas—one in the Harold C. Simmons Arthritis Research Center at UT Southwestern and the other in the Howard Hughes Medical Institute. Principal investigators for the study were Dr. Joel D. Taurog, a rheumatologist in the Simmons Center, and Dr. Robert E. Hammer, a senior associate with the Hughes Institute, both faculty members at Southwestern.

For the past decade, Taurog's work has focused on the role of HLA-B27 in the spondyloarthropathies. Throughout this period, he has been supported by research project grants and research career development awards from NIAMS. He received his initial research training in the intramural program of what was then the National Institute of Arthritis, Metabolism, and Digestive Diseases.

Hammer's work has focused on the application of transgenic technology to the study of gene function. Much of his work has been supported by the Howard Hughes Medical Institute since 1986. For 4 years before coming to Dallas, Hammer was an NIH-supported trainee at the University of Pennsylvania in the laboratory of Dr. Ralph L. Brinster, a pioneer in the development of transgenic technology.

Transgenic refers to the process by which one or more foreign genes—in this case, the genes that code for the HLA marker and inserted them into fertilized rat eggs. The genes direct the production of the light and heavy chains of the HLA-B27 protein complex.

Some of the fertilized eggs developed into rats with functional human genes. These transgenic animals produced the HLA-B27 complex on their cells. The transgenic descendants of these animals developed a range of symptoms including persistent diarrhea, inflamed joints and skin lesions similar to psoriasis. Their littermates, who did not inherit the genes, remained healthy.

Several lines of research in recent years have suggested that spondyloarthropathies may result from exposure to infection. The transgenic rats did not appear to suffer from infection, yet nonetheless developed disease symptoms. Future studies in which these transgenic rats are bred and raised in a completely germfree setting may help the investigators determine if an infectious agent is necessary to work with HLA-B27 in causing disease.

Major funding for this research was provided by NIAMS; the work was also supported by the National Center for Research Resources.

Management Intern Program Accepts Applications

Are you interested in management careers in administrative services, budget, grants and contracts, personnel, program planning or public information?

The NIH Management Intern Program is accepting applications for FY 1991 from Jan. 7 through Feb. 28. Past interns have come from a variety of backgrounds such as nursing, biology, secretarial and chemistry.

The program provides specialized training for selected individuals to prepare them for careers in administrative management. The program permits 12 to 15 months of rotational job assignments, supplemented by formal and informal training. Upon completion of the program, interns are qualified for positions such as administrative officer, budget analyst, grants management specialist, personnel management specialist and others.

Graduates have been and continue to be a primary source for future senior management positions at NIH.

Application forms will be available in ICD personnel offices as well as the NIH Training Center, which is located at Executive Plaza South, Suite 100, beginning Jan. 8. Applications must be complete and received by Feb. 28.

Information sessions discussing the program, application, and selection process will be held on the following dates:

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All sessions will be held from 11 a.m. to 12 noon, except where noted.

To be eligible to apply for the Management Intern Program you must:

- Have a career or career conditional appointment;
- Be a DHHS employee;
- Be willing to work full-time; and
- Be at least a GS-5 level employee (positions are offered at GS-5, 7, and 9 levels; employees above the GS-9 level may be eligible to take a down grade but retain their salary).

For more information, call the NIH Training Center, 496-6211.
Two new training programs of the Fogarty International Center are playing an increasingly important role in preparing AIDS researchers and health care professionals from many nations to help cope with the growing worldwide menace of the disease.

In the first 2 years, 274 health care professionals and scientists have received training at United States universities at a total cost of about $8 million. Including in-country training, 38 nations participated. Dr. Kenneth Bridbord of FIC is responsible for coordinating the two programs.

“Our AIDS programs have become an important part of the world effort to train scientists and health care providers to fight this global disease,” said Dr. Philip E. Schambra, director of FIC. “Only by international cooperation can we most effectively combine our efforts to combat—and eventually conquer—AIDS.”

Under the FIC’s postdoctoral program, physicians with clinical training in oncology or infectious diseases or Ph.D. scientists with experience in a relevant basic science come to four universities in the U.S. to receive training. Financial support is provided to UCLA, UC San Diego, the University of Miami and the University of Washington. In 1990, 25 foreign and 3 U.S. trainees participated in the postdoctoral program. The foreign participants were from 15 countries.

Under the program of epidemiology training grants for foreign scientists, 243 persons from 32 countries received training in the U.S., while another 2,400 persons were trained at 64 in-country courses in another 16 countries. The program’s goals are to provide training for foreign researchers in epidemiologic, clinical and laboratory aspects of HIV, foster collaborative relationships between the American universities and foreign institutions and provide AIDS research field experiences in foreign countries for scientists from U.S. institutions.

Ten institutions participated in the epidemiology training program, which covers a broad variety of topics, in 1990. For example, at the Harvard AIDS Institute, 13 visiting scholars from various developing countries have been learning basic laboratory and epidemiological research techniques. The participants then return to their native countries to apply the techniques they have learned. The grant also provides researchers with the opportunity to establish personal connections necessary for effective international collaboration and to work toward an academic degree. Harvard accepts applicants from China, Mexico, Senegal, Taiwan and Zaire.

Dr. Myron Essex, the Harvard AIDS Institute’s chairman, is program director for the grant and the Harvard School of Public Health, Harvard Medical School, the Dana-Farber Cancer Institute and the Massachusetts General Hospital all participate in the grant.

At a recent conference/workshop held at the Harvard School of Public Health, “Clinical Issues Concerning AIDS in Africa,” the similarities and differences of AIDS and HIV disease in the U.S., Zaire and Senegal were discussed.

“These African researchers are all excellent clinicians, and they were interested in coming to the United States to see how we treat AIDS—from managing ethical issues to developing study designs for clinical protocols,” said Dr. Richard Marlink, senior research project director in the department of cancer biology at the Harvard School of Public Health. Funded by a Harvard AIDS Institute training grant from the Fogarty Center, 15 junior and senior clinical researchers were brought from Senegal and Zaire to attend the workshop.

The UCLA School of Public Health, using an FIC grant, is helping Brazil, Indonesia, the Philippines, Singapore, Thailand and China control the spread of AIDS by providing training in both their home countries and at UCLA. “The disease is preventable through a combination of epidemiologic surveillance, health education and behavior modification, which even in the United States is the most difficult kind of intervention,” said Dr. Roger Detels, who heads the UCLA project. “For an international program to succeed, it must be sensitive to the moral values, political scene and customs of the individual countries,” he explained.

At the University of Washington, the emphasis of the training program is on epidemiology. Some foreign scientists are enrolled in the M.P.H. degree program in the department of epidemiology and others have completed 3- to 6-month intensive programs that include introductory courses on AIDS, epidemiology and biostatistics. Other exchange scholars have been primarily involved in laboratory investigations. Dr. Joan Kreiss, an assistant professor of epidemiology and medicine, is director of the University of Washington’s International AIDS Research and Training Program.

The organizations and scientists keep in regular contact through the International Network for AIDS Research and Training, which meets periodically. The network’s most recent meeting was hosted by FIC on Oct. 3. Attending were representatives from: FIC-sponsored international AIDS training programs, International Collaboration in AIDS Research (ICAR) programs (supported by NIAID), the World Health Organization’s Global Programme on AIDS, the Pan American Health Organization and federal agencies. The agenda included discussion of long-term collaborative research, conduct of international epidemiology research and clinical trials, in-country training, and opportunities for collaboration and sharing of resources.

Developed in close collaboration with the WHO Global Programme on AIDS and PAHO, the FIC AIDS training programs operate through grants to U.S. institutions, which then select participating scientists. During their second year, the programs were expanded to include Eastern Europe and the Soviet Union. —Jim Bryant
oratories of single, double and triple modular configuration with their necessary support—will be occupied by NCI and NIAID labs. These two floors can each accommodate 33-35 single modules, each 11 feet wide. About one-quarter of these will operate as biosafety level 3 (BL3) laboratories, needed for some retrovirus procedures. In these labs, workers must enter via an anteroom instead of directly from the corridor; in some cases, material exiting the labs must traverse a pass-through sterilizer. The remaining modules will be biosafety level 2 (BL2) labs, which can be entered directly from the corridor, and can be easily converted to BL3 labs if the need arises in the future.

According to Sebastian, three design features give the A-wing addition unparalleled flexibility and efficiency.

The first feature involves a “transfer beam.” If you look at the finished steel structure, the new columns of floors 4 through 6 line up and are equally spaced 22 feet apart, allowing the highly prized 11-foot module laboratory design width to work. However, the existing A-wing columns are 24 feet apart.

Because the steel support columns in the addition don’t line up exactly with those beneath them in the existing A wing, four 3-foot-deep steel transfer beams bear the weight of all floors above and transfer that load to the original support columns. The transfer beams are, in effect, a new foundation for what rises above them. In addition, the transfer beams are cantilevered 6 feet beyond each end of the old wing, adding more net square footage.

The second unique design is that the addition is actually two separate vertical steel structures. “Only a 5-inch concrete floor slab and the stair towers at the north and south ends will connect the two structures,” said Sebastian. Normally, a horizontal steel beam would connect the two halves into one structure. But in order to maintain floor-to-floor connections with the existing B wing yet achieve maximum clear floor-to-ceiling height, only the concrete slab spans the corridor. This design feature allows room for one large mechanical duct that will occupy the entire length of the corridor, eliminating any need to take up lab space with a series of large ducts.

Standing in the corridor of the new wing, one will notice that there is no finished ceiling; instead, a single large silver duct will run overhead, supplying the air required for each laboratory.

The third design element allowing for increased flexibility and efficiency is the use of steel “stub” girders; essentially, these permit pass-through spaces for ducts and a network of pipes that would otherwise clutter up the ceiling space. The pipes will be arranged in an orderly fashion, allowing tap-ins at each module.

Of the two elevators in the old A wing, only one will serve the entire addition. The other shaft will house an air duct and pipe runs to serve the heightened ventilation needs of current or future labs.

Mechanical and electrical support systems for the addition will be totally independent from Bldg. 10, though chilled water and steam will come from large conduits serving the entire Bldg. 10 complex. The addition will have its own generator, reverse-osmosis water system, and central supply of carbon dioxide and other medical gases; the carbon dioxide system has the built-in capability to serve the labs currently occupying the top two floors of the existing A wing.

“The distribution of the mechanical, electrical and other support systems will allow each module to act independently,” Sebastian explained. “That means we can completely shut down a lab without affecting its neighbors to the sides, or above and below.”

Both floors and ceilings in the addition will be installed as one-piece monoliths, without partitions. “That will allow us to take out walls and rearrange modules without destroying the integrity of the ceiling or floor,” said Sebastian.

As a crane lifted the last pieces of structural steel into place in late October, Sebastian reflected on the tribulations of adding yet another appendage to the approximately 3 million square feet of the Bldg. 10 complex. “The disruption to the employees in the A wing—the noise and commotion—will be greatly reduced now that the superstructure is in place. We had to drill 160 holes in the roof of the A wing to anchor the columns down. We also had to cut through the roof slab to extend the emergency stairs. Those people (below the project) have been gems. They have really put up with a lot.”

“There has been some inconvenience,” admitted Dr. Diane Solomon, chief of the cytopathology section in NCI’s Laboratory of Pathology, whose office is directly beneath the project. “It’s occasionally rather noisy. And there have been a few vibrations and leaks—mostly minor disruptions. Don Sebastian has almost always been able to resolve problems...
Radioactive Waste To Be ‘Tagged’

Beginning Jan. 1, a new tag entitled "Radioactive Waste Pickup Receipt" must be completed and attached to radioactive waste for pickup. The completed tag will accompany each item and will replace the old system of informally reporting the activity level of each radionuclide contained in the waste. The tag documents the activity level of each waste radionuclide to comply with Nuclear Regulatory Commission directions.

In future months, the tags may be obtained from NIH self-service stores. Until then they will be delivered, along with replacement waste containers, by the waste contractor to laboratories and patient care areas that use radioactive isotopes. Further information will appear in the NIH Record when tags become available for purchase in self-service stores. Health physicists, who may be reached by calling 496-5774, will answer any questions about this change.

Forum on Sharing Resources

The excitement of science comes from the quest for knowledge. Ideally, scientists engaged in this quest freely share their ideas, their conclusions, their data, and their resources with fellow scientists. In practice, however, most scientists must consider other factors—career advancement, protection of investments, and university or company rules.

NIH has historically encouraged scientists to share their data and resources openly and has recently proposed to strengthen its policy. However, any change in the resource-sharing policy raises many issues. Who owns the resources developed with federal funds? Who has rights to the resources? What are the scientist’s obligations to share? What are the incentives and impediments to resource-sharing? What can NIH staff do to encourage scientists to share?

On Jan. 9, from 1:30 to 3:30 p.m., the Staff Training in Extramural Programs (STEP) committee will present in Wilson Hall, Bldg. 1, a forum, "Sharing Scientific Resources," to address these and other related questions. Dr. William Raub, NIH acting director, will be the keynote speaker. Other speakers, including representatives of the National Academy of Sciences panel on data and resource sharing, will address the ethical, legal and policy issues.

STEP forums do not require advanced registration and are open to all NIH personnel. Attendance will be on a space-available basis. Additional information is available from the STEP program office, Bldg. 31, Rm. 5B44, 496-1493.

Lecture on ‘Chaos’

Mitchell Feigenbaum will be the featured speaker at a meeting of the NIH Interinstitute Chaos Council on Dec. 13 at 3 p.m. in Lister Hill Auditorium, Bldg. 38A. The title of his talk, aimed at a nonmathematician audience, will be "Chaos: Believe It or Not?"

A pioneer in the field of chaos, Feigenbaum has developed and discovered formulas and characteristics of dynamical systems that are thought now to be fundamental to the subject. He has indirectly made possible many of the applications of chaos to medical and biological systems.

A physics professor at Rockefeller University, Feigenbaum has many prestigious awards to his credit and is a fellow of Los Alamos research center.

Chaos is a field of physics and mathematics that can be used to describe and predict the behavior of certain nonlinear systems. These systems, once thought to be in the minority, are now believed to be fundamental to most biological systems. Debate continues over the application of these principles. For more information, call 402-1404.
NIH Communicators Collect Blue and Gold Honors

Blue and gold honors went recently to NIH's public information community. The National Association of Government Communicators (NAGC) announced 1990 winners of its annual Blue Pencil and Gold Screen competition.

Blue Pencil awards, given for outstanding publications, and Gold Screen awards, which honor excellence in audiovisual materials, were distributed at NAGC's awards program Dec. 6 at Rosslyn Westpark Hotel. Listed below are NIH victors and titles of their award-winning works.

Visual Design (logos, pocket folders, business cards or other items)

First Place
Maureen Mylander, OD
Frances Taylor, NINDS
NIH Design Section
Healthy Books Bookmark

Honorable Mention
Wendy Schubert, CC
CC Patient Education Working Group
The Clinical Center Coloring Book

Visual Design (posters, maps)

First Place
Wendy Schubert, CC
CC Confidentiality Education Group
Confidentiality Awareness Campaign

Third Place
Office of Cancer Communications
Fellowships in Surgical Oncology at the National Cancer Institute

Honorable Mention
National Heart, Lung, and Blood Institute
NIHLBI Kit '90—The Right Moves

Public Service Announcement (visual)

Honorable Mention
Wendy Schubert, CC
CC Patient Education Working Group
The Clinical Center Coloring Book

Visual Design (directories, catalogs, calendars)

Second Place
National Heart, Lung, and Blood Institute
Health at a Glance

General Brochure (four-color)

Second Place
Patricia A. Newman-Horm, NCI
Horizons of Cancer Research

General Audience Publication (one-color)

Third Place
Maria A. Dove, CC
Mickey Hanlon, CC

NIH Communicators Collect Blue and Gold Honors

Ellyn Pollack, CC

Medicine for the Layman—Osteoporosis and Risks of Heart Disease

General Audience Publication (two or three colors)

Second Place
Office of Research Reporting, NICHD
Understanding Gestational Diabetes

Campaigns

Third Place
National Heart, Lung, and Blood Institute
NIHLBI Kit '90—The Right Moves

Public Service Announcement (audio)

Honorable Mention
National High Blood Pressure Education Program, NHLBI
Stroke Victim

Honorable Mention
Office of Cancer Communications, NCI
Nancy Wilson Mammography

Public Service Announcement (visual)

Honorable Mention
NHLBI
Mom's Testimonial

Annual Report
Honorable Mention
Irene Haske, formerly of CC
Ellyn J. Pollack, CC

Warren Grant Magnuson Clinical Center

Hoult Honored for NMR Work

Dr. David I. Hoult, who heads the nuclear magnetic resonance (NMR) instrumentation group in the Biomedical Engineering and Instrumentation Program, NCRR, is the first recipient of the Award for Achievements in the Field of Magnetic Resonance, to be presented annually by the Eastern Analytical Symposium (EAS). Hoult received the award Nov. 13 at a seminar held in his honor during the 1990 symposium.

Presenting the award, EAS governing board chairman Dr. James McDivitt said, "His invention of rotating frame imaging and his many innovations in NMR probes, receivers, magnets, and computational procedures have had widespread impact on the field."

Dr. David I. Hoult

Gallo Lauled at Home, Abroad

Dr. Robert C. Gallo, chief of NCI's Laboratory of Tumor Cell Biology, recently shared the 1990 Karl Landsteiner Memorial Award with Dr. Luc Montagnier of the Pasteur Institute; the scientists were honored at the joint meeting of the American Association of Blood Banks and the International Society of Blood Transfusion in Los Angeles.

Gallo also recently gave the following distinguished lectures: the 19th Maxwell Finland Lecture at the annual meeting of the Infectious Diseases Society of America held in Atlanta; the Yuri Ovchinnikov Memorial Lecture at the Shemyakin Institute of Bioorganic Chemistry in Moscow; the Shell Lecture at Oxford University; and the Sir William Osler Lecture at McGill University.

Earlier he delivered the Luther Terry Lecture at the U.S. Public Health Service Professional Association meeting in Anchorage, where U.S. Surgeon General Antonia Novello gave the opening address.

NIMH Seeks Volunteers

The Clinical Psychobiology Branch, NIMH seeks healthy men and women between the ages of 20 and 75 to participate as controls in a study of vision and immune function. No drugs are involved. Volunteers will be paid. For more information call 496-0500 between 9 a.m. and 5 p.m.
**NCRR Grantee Lauterbur Wins Bower Award**

Paul C. Lauterbur, an NCRR-supported scientist at the University of Illinois at Urbana-Champaign, is the first winner of the Bower Award for Achievement in Science from the Franklin Institute in Philadelphia. The award, one of two new awards that are part of the Benjamin Franklin National Memorial Awards program, recognizes a top scientist who "embodies the practical, entrepreneurial and humanitarian spirit of Benjamin Franklin."

The science prize includes a gold medal and $290,000 in cash—the largest amount of any U.S. science award.

Lauterbur, who is director of the biomedical magnetic resonance laboratory at the College of Medicine, University of Illinois at Urbana-Champaign, received the award for his role in developing nuclear magnetic resonance (NMR) spectroscopy and using it as an imaging tool in medicine. He currently has a grant from the Biomedical Research Technology Program of NCRR to expand the use of NMR by creating an NMR microscope.

NMR uses a combination of magnetic field and radio-frequency to create an image of an object. An object is surrounded by a magnetic field that causes the object's nuclei to align with it. Pulses of radio waves are then directed at the object. These waves perturb selected atoms in the object and move them to a higher energy state, causing resonance. The resonance activates a coil that sends information on the density of the selected atoms to a computer, which assembles a picture. Scientists use the computer-generated picture to distinguish between types of tissue—for example, between healthy and tumorous tissue.

NMR is often used in studies of the brain and spinal column, where it gives scientists a clear picture without using radiation or surgery.

Extending NMR imaging to microscopy will enable scientists to study individual cells rather than whole tissue. While current instruments look at cross-sections in increments of a millimeter, the new NMR microscope will be able to look at cross-sections as small as a micrometer. Eventually scientists will be able to get a picture of specific chemical functions within an individual cell, and even be able to view a particular cell within a living organism. Lauterbur is also developing magnetic contrast agents, which will work much the same way as stains do for conventional light microscopes, highlighting the area to be studied. Within an organism, the contrast agent can be attached to a cell so that the cell's movements and actions can be followed.

In addition to his position as director of the biomedical magnetic resonance laboratory, Lauterbur is a professor of medical information science, chemistry, biophysics, bioengineering, and in the Center for Advanced Study, University of Illinois at Urbana-Champaign, and a professor at the College of Medicine, University of Illinois at Chicago. He is a member of the National Academy of Sciences and a fellow of the American Physical Society. Among Lauterbur's other awards are the National Medal of Technology, National Medal of Science, Fiuggi International Prize, Albert Lasker Clinical Medical Research Award, Alfred P. Sloan Fellowship, Gold Medal of the Society of Magnetic Resonance in Medicine, American Physical Society Prize in Biological Physics, and Amsterdam Prize for Medicine from the Royal Netherlands Academy of Arts and Sciences.—Polly Onderak

**NINDS To Hold Poster Day**

Intramural scientists from the National Institute of Neurological Disorders and Stroke will exhibit some of their latest research findings on the brain and nervous system at the first NINDS Research Poster Day, to be held Monday, Dec. 17 at the Clinical Center from 9 a.m. to 6 p.m.

One hundred posters illustrating recent advances in basic and clinical neuroscience will be on display in Bldg. 10's Visitor Information Center. NINDS scientists will be on hand from 10 a.m. to noon and from 3 to 5 p.m. to answer questions about their research. All NIH employees are invited to visit the exhibit and to take advantage of this unique opportunity to meet and talk with the NINDS scientists displaying their work. The event is open to the public. For more information, call Louise Harris or Jan Heffernan, 496-5468.

**NCI Branch Aids Shelter**

Employees in NCI's Contracts and Review Branch, DEA, recently reached out to the needy for the second year in a row by donating food and money to the House of Ruth during Thanksgiving.

Bette A. Houston, a contracts technical assistant in the branch, coordinated the volunteer effort for the division, headed by Dr. Wilma A. Woods.

"We collected canned goods and checks from our employees, and were able to purchase more than 125 pounds of turkey for the House of Ruth," said Houston.

The House of Ruth, established in 1976, operates in six buildings and helps more than 200 homeless and battered women and their children daily. Always in need of volunteer assistance of any kind, the House of Ruth can be reached at (202) 547-6173.

**Local Artists Give Recital**

Jody Dall'Armi, soprano, and William Huckaby, pianist, will present a recital benefiting the Friends of the Clinical Center (FOCC) on Dec. 15 at 8 p.m. in Masur Auditorium. The FOCC helps patients and their families with financial support to ease pain and crisis of illness during hospitalization at the Clinical Center.

The recital program features works by Purcell, Schumann, Ravel, Bernstein and Kern. In addition, the program features the American premiere of "3 Songs for Voice and Piano" by Dr. Eric Ewazen from the Juilliard School of Music.

Tickets for the recital are $12. For tickets or information, call 496-4600 or 402-0193.
NCI Honors Employees at Annual Awards Ceremony

At NCI's annual awards ceremony held recently, Dr. Samuel Broder, NCI director, presented awards to the following 57 employees:

NIH Award of Merit

Richard G. Carter Jr.—In recognition of long-term exceptional leadership contributions to the administrative management of the NCI-Frederick Cancer Research and Development Center.

Mary Cushing—For unusual resourcefulness and significant contributions to the financial management of the extramural programs and for fostering enhancements to the computerization of financial data bases.

Beverly Lott Wyatt—In recognition of excellence in supervisory and management accomplishments in support of the NCI Research Contracts Branch.

Jan Maltbie—For improved administration and management of the operational aspects of the NCI Administrative Career Development Program.

Patricia Scullion—For improved administration and management of the operational aspects of the NCI Administrative Career Development Program.

Dr. Frank J. Gonzalez—In recognition of his excellent direction of a broad program of research on the isolation, structure, and regulation of genes coding for a variety of animal and human cytokine P450.

Dr. Steven R. Tronick—in recognition of his pioneering work on human oncoencephalitis and animal lentivirus, and for his effectiveness as a manager of personnel and resources.

Dr. Joseph B. Bolten—For excellence in research leading to understanding of the regulation and functions of tryptase proteinase pros-oncominos.

Dan J. Grauman—In recognition of his outstanding performance in serving as executive secretary for the Epidemiology and Biostatistics Program responsible for the efficient selection and procurement of research and resource contracts.

Dr. Appasahab R. Patel—In recognition of his initiative, patience and dedication in the management of an excellent extramural program of small grants in epidemiology.

Ruth A. Kleinerman—In recognition of her collaborative studies on the risk of cancer following radiation exposure that have provided new information useful for setting protection standards and developing theories of carcinogenesis.

Dr. Diane Solomon—For revolutionary contributions to diagnostic cytology including development of the Bethesda system for classification of cervical/cutaneous cytology.

Gordon T. Cecil—For exceptional contributions to the administrative management of the Biological Modifiers Program and the Division of Cancer Treatment.

Rosemary M. Cuddy—For recognition of her sustained superb leadership in the continuing development and management of the GENIUS Data System.

PHS Commendation Medal

Dr. Dorothy MacFarlane—For outstanding leadership and contribution to the Cancer Therapy Evaluation Program of the National Cancer Institute.

Dr. Gunta I. Obrams—in recognition of exceptional skill and leadership in the establishment, supervision, and management of extramural programs in cancer epidemiology.

Dr. Michael C.R. Alavanja—For sustained outstanding contributions to the scientific management of a complex program in cancer epidemiology and biostatistics, and for highly productive research into the environmental causes of cancer.

Dr. Renato V. La Rocca—In recognition of major contributions to the development of ranitidine as an active agent in lymphoma and cancers of the adrenal gland and prostate.

Dr. Bruce E. Johnson—For design and implementation of combined modality therapy for improving treatment and survival of patients with small cell lung cancer.

Dr. James J. Goedert—For pioneering and sustained efforts to define the cause, risk factors, and prevention of AIDS.

James W. Wilson III—For his diligent and thorough management of the preparation and inventory of 2',3'-dideoxyxymethine (ddI) for clinical trials in AIDS patients.

Dr. Carl C. Baker—For original and distinguished studies on the transcriptional regulation of the papillomaviruses.

Glenn A. Hegemann—For continuous exemplary and high impact contributions toward identifying and characterizing the structures of genes that specify susceptibility to tumor promoter-induced inflammatory transformation.

PHS Unit Commendation

For innovation studies on the risk of cancer following radiation exposure, providing new information useful for setting protection standards and developing theories of carcinogenesis, the following personnel from the Radiation Epidemiology Branch, Epidemiology and Biostatistics Program, Division of Cancer Etiology were honored: Dr. John D. Boice Jr., Rochelle Curtis, Dr. Charles E. Land, and Michele Morin.

PHS Achievement Medal

Dr. Mark H. Schiffman—For pioneering interdisciplinary research that has clarified relationships of cancer risk with discrete biologic markers, including focal management and human papillomaviruses.

PHS Citation

Alfred Fallavollita Jr.—For recognition imagination and responsiveness in the design and administration of the nationwide Group C protocol procedure used to make available specific investigational antineoplastic agents for patient treatment.

Clarence L. Fortner—In recognition of sustained superior performance in directing NCI's drug management and authorization function in support of NCI-sponsored clinical trials, Group C program, and special exception drug program.

EEO Special Achievement Award

Robert M. Coggin—In recognition of his extraordinary compassion and concern for all individuals afflicted with disabilities as exemplified by his long term work with hearing impaired employees.

Dr. Larry G. Kessler—In recognition of his efforts to recruit, employ, and nurture a culturally diverse, interdisciplinary team while maintaining an open, flexible, and highly motivated working environment.

Susan G. Connors—In demonstrating a high degree of sensitivity to the needs of handicapped employees and employees with limited skills through effective use of training to enhance career opportunities.

Dr. Susan Garg e s—In recognition of her enthusiastic and creative leadership and support in the development of the NCI Adopt-A-School science enrichment program.

Nancy R. Keestav—in recognition of her substantial achievement in the development of young minority women employed through the NIH stay-in-school program for economically disadvantaged students.

Dr. Maureen O. Wilson—in recognition of her overall contribution to employee growth and development, especially her recruiting, retention, and promotion of minority employees into supervisory roles.

Dr. Michele Evans—in recognition of her multifaceted involvement in the NCI EEO program as exemplified by her personal efforts on behalf of the Student Research Training, the NCI Adopt-A-School, and Minority Access to Research Careers programs.

Dr. Bruce A. Chabner—in recognition of his overall leadership and commitment to the principles of equal opportunity throughout his distinguished career at the National Cancer Institute.

EEO Officer's Recognition Award

The following NCI personnel received this award for their involvement in the NCI/McKinley High School Adopt-A-School program. The early success of this program is related to their interest and willingness to become involved in this initiative, Edward Beechman, Veronica Brown, Michael Stump, Dr. Michael Alavanja, Janelle Vaughns, Dr. Philip Browning, Dr. John Donovan, Dr. Gregory Curt, Dr. Otis Brawley, Dr. Bruce Chabner, Dr. Eddie Reed, Dr. Rosalyn Epps, Dr. Nancy Tran, Dr. Valerie Stout, Alfred May, Nancy Templeton, Dr. Jeffrey Schlim, Dr. Lance Liotta, Dr. Andy Muchmore, and Charles Whitney.

Length of Service Award

Harry Y. Canter, Division of Extramural Activities, for his 40 years of dedicated service to the government.

Bullets Host NIH'ers

It will be NIH Night at the Capital Centre on Saturday, Dec. 29 as the Bullets host the Denver Nuggets. A special price of $13 (regularly $17) includes hot dog and a soda. Tickets are available at the R&W activities desk.
TRAINING TIPS

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

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<th>Courses and Programs</th>
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| Personal Computer training is available through User Resources Center (URC) self study courses. There is no cost to NIH employees for these hands-on sessions.

The URC hours are:
- Monday through Friday 9 a.m. to 5 p.m.
- Saturday 9 a.m. to 1 p.m.

NIA Seeks the Healthy

The Laboratory of Neurosciences, NIA, is seeking healthy volunteers to participate in a study investigating the effects of aging on brain functions. Volunteers must be in excellent health, medication free, and without past or present major health problems. Those under age 30 and above age 60 are particularly needed. Procedures require approximately 13 hours; participants can receive a stipend of up to $300 depending on the actual time involved. For more information call (201) 496-4754.

Study Needs Subjects

The Laboratory of Neurosciences, NIA, is conducting a study of depression in adults age 45 and older. The study does not involve drug treatment. Individuals who are depressed and want to participate may contact NIA, 496-4754 for more information, Monday through Friday 9 a.m. to 5 p.m.

New Photo Policy for 'Record'

The Record has been having problems with the quality of photographs printed in the newsletter. Part of the problem is that our printer is now required by GPO to use recycled paper, which is more porous than paper previously used and thus absorbs more ink. Adding to the problem are the color photographs submitted for use. The process of converting color photographs to black and white involves a loss of sharpness. As a result the photos in the Record have been very dark. To help eliminate this problem in the future, the Record requests that you submit black and white photographs when at all possible. Your colleagues, friends and coworkers will appreciate it and the Record will continue in its effort to provide a quality newsletter for all NIH employees.

Normal Volunteers Needed

The Developmental Endocrinology Branch, NICHD, is recruiting healthy women, who have undergone a tubal ligation, for clinical research studies. Candidates must be 21-40 years of age and have regular menstrual cycles. They should not be taking any medications.

Studies last for one menstrual cycle, require frequent blood drawing during a single morning, first morning void urine collection for 10 days, and involve the spraying of a small amount of a hormone-containing solution into their uterus through a very small tube. Compensation is available. For further information call 496-4244.

Infant Care Available at NIH

Full-time child care for ages 2 months to 3 years is available at ChildKind at NIH in Bldg. T-46. Openings are now available for ages 18 months and older. ChildKind is open to children regardless of race, religion or national origin. Hours are 7:30 a.m. to 6 p.m. For more information call 496-8357.

Free Clinic Needs Physicians

The Washington Free Clinic is seeking volunteer physicians for Tuesday and Thursday night clinic. Malpractice insurance is provided. For further information call (202) 667-1106, or Dr. T. Franklin Williams, 496-9265.

Hypertensives, Normal Vols Sought

The Clinical Neuroscience Branch of NINDS is seeking hypertensives and normal volunteers ages 18 to 55 for a study about the relationship between dietary salt intake and high blood pressure. For more information call 496-3244 or Drs. Wolfowitz and Goldstein at 496-2103.
The Record

December 11, 1990

What Did Mama Say?

Americans Are Not Eating Enough Fruit and Vegetables

By Kara Smigel

Ninety-one percent of Americans do not eat enough fruit and vegetables on any given day to meet recommendations for a healthy diet, according to a National Cancer Institute study. Only 9 percent of the people who participated in the survey had eaten two servings of fruit plus three servings of vegetables in the previous 24 hours.

“The proportion of the population meeting these guidelines is shockingly small,” said Blossom Patterson, lead investigator of the study. “Our snapshot of the U.S. diet shows that almost half of the population had no fruit or juice on the study day and 11 percent ate no fruit or vegetables at all,” she added.

The NCI study is the first examination of national data to estimate the number of servings of fruit and vegetables eaten. This provides important information on how closely American food choices match the guidelines for Americans jointly issued by the Departments of Agriculture and Health and Human Services. The guidelines state that Americans should eat at least two servings of fruit and three servings of vegetables each day. Servings are equal to about one-half cup of a vegetable, a medium piece of raw fruit, or 6 ounces of juice.

“Eating the recommended number of servings isn’t as difficult as it sounds,” noted Dr. Gladys Block, coinvestigator of the study. “It can be achieved by eating what many people think of as a ‘traditional’ American diet—fruit or a glass of juice at breakfast, salad with lunch, a piece of fruit for a snack, and potatoes and another vegetable with dinner.”

Only 27 percent of those surveyed ate three or more servings of vegetables. The average vegetable intake was only 1.77 servings per person, including salad and potatoes, the two most popular vegetables. About 68 percent of the people who ate only one vegetable had salad or potatoes, rather than vegetables like green beans, corn, or broccoli, termed “garden” vegetables by the investigators.

“Many studies that show possible health benefits from eating vegetables link those benefits to eating ‘garden’ vegetables,” Patterson explained. “But this study shows that Americans aren’t choosing to eat that type of vegetable.” Some studies have also linked health benefits to eating salads.

Although 29 percent of the survey participants met the fruit guidelines, close to 50 percent had no fruit or fruit juice on the survey day. Numerous epidemiologic studies suggest that high fruit intake is associated with lower cancer risk.

Data for the study were collected from more than 11,500 American adults 19 to 74 years of age as part of the Second National Health and Nutrition Examination Survey (NHANES II) conducted by the National Center for Health Statistics. The participants were from throughout the United States and represented both white and Black Americans. Although the nationwide data were originally collected during the years 1976 to 1980, more recent surveys of smaller groups suggest that American fruit- and vegetable-eating habits have not changed in the interim.

The NCI evaluation of these data includes the types of vegetables eaten, as well as the total amount of fat, fiber, and vitamins A and C in the diet associated with eating different numbers of servings of fruit and vegetables.

Fiber

• The 11 percent of the survey population who ate no fruit or vegetables had less than 6 grams of dietary fiber in their overall diet. This is less than one-quarter of the NCI-recommended 20 to 30 grams of dietary fiber daily.

• The total amount of fiber eaten increased as more fruit and vegetables were included in the overall diet. The 9 percent of the population who ate the five servings recommended consumed about 17 grams of dietary fiber.

Fat and Calories

• Fat intake increased as people ate more servings of vegetables, probably because they used salad dressing or added fats like margarine and butter to their vegetables. This was not true among those who ate more fruit; in fact, percent of calories from fat decreased with increasing number of fruit servings.

• Persons eating more servings of fruit and vegetables were not fatter (based on a height-to-weight ratio) than those who ate less of these foods, despite the fact that their caloric intake was higher.

Vitamins A and C

• When people are grouped by their intake of fruit and vegetables, only those who ate at least one serving of both a fruit and vegetable reached the U.S. Recommended Daily Allowance (USRDA) of vitamin A. Among those who are only vegetables, the USRDA was reached solely by those who ate three or more servings. About half of the vitamin A in the American diet comes from the precursor forms of vitamin A (such as beta-carotene) that are found in fruit and vegetables.

• Fruit and vegetables are the primary source of vitamin C in the U.S. diet. Intake of vitamin C was higher for a given number of servings of fruit than for an equivalent number of servings of vegetables. It took three servings of vegetables to equal the vitamin C intake of a single serving of fruit (about 60 milligrams, which is the USRDA).

Dietary Guidelines for Americans, 1990

• Eat a variety of foods.

• Maintain a healthy weight.

• Choose a diet low in fat, saturated fat, and cholesterol.

—Total fat should provide 30 percent or less of total calories and saturated fat should be 10 percent of total calories.

• Choose a diet with plenty of vegetables, fruit, and grain products.

—Adults should eat at least three servings of vegetables and two servings of fruit daily.

• Use sugars only in moderation.

• Use salt and sodium only in moderation.

• If you drink alcoholic beverages, do so in moderation.

Additionally, NCI specifies that fiber intake should be increased to 20 to 30 grams per day with an upper limit of 35 grams. A variety of food sources, including vegetables, fruit and whole-grain cereals should be eaten to provide this increase in dietary fiber. An upper limit of 35 grams is suggested to avoid any possible adverse effects. □

Soviet Immunology Explored

Dr. Tatyana Ulyankina will speak on “The History of Russian and Soviet Immunology: Repression in the pre-Lysenko Period,” on Jan. 7, 1991, at 2 p.m. in Lipsett Amphitheater, Bldg. 10. Ulyankina is a senior scientific research worker at the Institute of the History of Science and Technology of the U.S.S.R. Academy of Sciences in Moscow. This public lecture is sponsored by the History of Medicine Division, NLM, and the NIH Historical Office. For more information, call Dr. James Cassedy, 456-5405. □