Liotta Sets Course for Revitalized Intramural Program

By Rich McManus

In just 4 months since filling the seat, cancer researcher Dr. Lance Liotta, NIH’s new deputy director for intramural research, has left his imprint on virtually every facet of life affecting the working scientist at NIH—from paychecks to policies on consulting and outside activities, to protocol review to parking.

A highly respected 16-year NIH veteran, he has spent virtually his entire scientific life investigating cancer invasion and metastasis, which is the prime reason cancer patients die. A collaborator non pareil with colleagues in the National Cancer Institute, with whom he has published many important papers, Liotta wants for every NIH scientist what he enjoys himself at the institution—a stimulating, rewarding career at the cutting edge of modern science.

“I’ve had a very good experience here,” he says, having rushed over from the Laboratory of Pathology in Bldg. 10, which he still directs, to new offices in Bldg. 1. “I feel love and gratitude for NIH. I want everyone to have that same experience.”

His highest priority in his new post? “Overall, to protect and enhance the greatest commodity we have—creative freedom. The unique aspect of NIH is that a scientist can wake up in the morning with an idea and have the resources to go into the lab and start that experiment before breakfast.

“NIH is a haven for imaginative research,” he continues. “Here, a talented scientist can give free rein to his or her creativity, follow his or her insights—even if that means pursuing what others might consider scientific longshots. It is this NIH tradition that encourages our scientists to go wherever their data lead them, to trust their instincts. If that course takes them into heretofore unexplored waters, all the better. The individual can decide what’s next.”

3-Year Study Results Released

Blood Type Matching Seen Aiding Cornea Transplants

Researchers report that donor-recipient tissue typing had no significant long-term effect on the success of corneal transplantation in a nationwide clinical study of more than 400 patients at high risk for rejection. The results of this NEI-supported research were published Oct. 14 in the Archives of Ophthalmology.

The Collaborative Corneal Transplantation Studies (CCTS) suggested instead that matching patient and donor blood types (ABO compatibility), a test that is not currently standard practice in corneal transplantation, might be effective in improving patient outcome. CCTS investigators also believe that treating patients with high-dose topical steroid therapy for several months after surgery may have improved transplant survival in this study.

These findings, based on 3 years of extensive patient followup, indicate that these two inexpensive strategies may potentially be more effective in improving high-risk corneal transplantation than the more expensive donor-tissue typing had no significant long-term effect.

NIA Expands Programs on Ethnic Minority Aging

The National Institute on Aging is expanding its programs on health issues of older minorities and its programs of assistance to ethnic minority students and researchers.

NIA funding for research efforts relevant to ethnic minorities has nearly doubled since 1991. In 1992, approximately $18 million was spent to expand existing programs as well as start new initiatives. NIA awarded more than $2 million in supplemental funding to support underrepresented minority researchers, including supplements to NIH MERIT grantees for the support of minority trainees. The institute also sponsors minority dissertation research awards, which are small grants in support of doctoral research on aging-related problems conducted by minority students. The dissertation award, initiated in FY 1991 as a pilot program, was continued in FY 1992 and has the potential to become an NIH-wide program. Also, approximately $900,000 in NIH funding was contributed to NIH’s Minority Biomedical Research Support Program. In many of its activities, NIA works closely with the NIH Office of Minority Programs.

Dr. Gene Cohen, acting NIA director, says the institute “stands committed to supporting a broad range of research efforts related to life expectancy, health, environmental influences, social networks, and disease prevention targeted to ethnic minorities. The NIA has worked aggressively to enhance existing biomedical, clinical, and behavioral research on minority aging and to increase the racial and ethnic diversity of its investigators.”

Many of the NIA fact sheets on aging, known as Age Pages, have been translated into Spanish, and new dissemination efforts geared toward older Hispanic communities are presently under way and will grow in 1993. The institute also is expanding its efforts to increase the representation of African American men and women in the Baltimore Longitudinal Study of Aging—the NIA intramural program’s landmark study of human aging.

The NIA also recently hosted an annual Summer Institute in Research on Minority Aging. The week-long conference, held at the Airlie House in Warrenton, Va., enabled 24 junior researchers consisting of sociologists, psychologists, social workers, and epidemiologists to exchange ideas, conduct critical assessments of current minority aging research initiatives, and develop new areas of research.
HIV patients. The report was based on a review of 13 completed or ongoing studies, including those of Dr. Davy K. Koech, director of the Kenya Medical Research Institute. Those studies examined whether the drug could increase the white CD4+ T blood cells and produce a conversion from HIV antibody-positive to HIV antibody-negative status, results that Koech reportedly had seen in some patients. None of the other 12 studies could confirm such results.

Since the April report, proponents of the drug claimed it is very effective in relieving the symptoms of AIDS, such as weight loss and fatigue. Because of such accounts, ARAC suggested at an August meeting that a conference of scientists, including representatives from ARAC and NIAID as well as individuals familiar with the therapy and a spectrum of community physicians, should be held to decide what additional steps, including clinical trials, should be taken regarding the drug.

Currently, only intravenous forms of alpha interferon have received FDA approval for use in treating several cancers including Kaposi’s sarcoma, which is common in AIDS patients. Injectable forms of the drug typically are used as cancer therapies at doses at least 10,000 times higher than doses of the oral form reported on at NMA’s meeting.

Six Named to National Advisory Council on Aging

Six new members have been named to the National Advisory Council on Aging. They are: Dr. Rodney M. Coo, chairman, department of community medicine, Saint Louis University School of Medicine; Dr. C. Conrad Johnston, Jr., professor of medicine, Indiana University School of Medicine; Hadassah S. Loeb, attorney, New York; Mary K. McEachron, administrative director and general counsel, Buck Center for Research in Aging, Novato, Calif.; Dr. Nelson McGhee, Jr., interim president, Morehouse School of Medicine; and Dr. Richard Miller, professor, department of pathology, University of Michigan School of Medicine.

Coe is a well-known authority in health care and in the past 20 years has published numerous books and journal articles in the area of health care for the elderly.

Johnston specializes in endocrinology as well as research on bone and mineral metabolism. He has been a professor at Indiana University School of Medicine since 1969, and sits on the editorial boards of the Journal of Bone and Mineral Research, and the Journal of Clinical Endocrinology and Metabolism.

Loeb is a founding member of the National Academy of Elder Law Attorneys, which advises attorneys and clients on housing, homecare, nursing home options, government benefits and other issues affecting older people. Before joining the Buck Center, McEachron was a partner with the law firm Orrick, Herrington & Sutcliffe in San Francisco where she specialized in corporate reorganization.

McGhee is the founder and president of the Sickle Cell Foundation of Georgia, Inc., as well as a member of the board of directors of the National Association of Sickle Cell Disease.

Miller’s principal research areas are aging and immune function, bone marrow transplants, and T-lymphocyte activation.

Structural Biology Group Meets

The NIH Intramural Structural Biology Group will hold a series of seven meetings beginning on Wednesday, Dec. 2 at 4:30 p.m. in Bldg. 6, Rm. 4A05. The meetings, designed to familiarize members of NIH’s structural biology community with one another, will be held at 2-3 week intervals, mainly in Bldg. 31 conference rooms, and last an hour or so. The Dec. 2 meeting will be on “X-ray Crystallography.” Future meeting dates, topics and contacts are as follows: Dec. 16, NMR, (A. Byrd, 301-846-1218); Jan. 6, Protein Expression (P. Wingfield, 402-1940); Jan. 21, Electron Microscopy, (A. Steven, 496-1032); Feb. 3, Computational Structural Biology, (R. Herrington, 496-4783); Feb. 24, Protein Sequencing/Synthesis, (J. Coligan, 496-3213); Mar. 10, Other Forms of Structural Biology, (A. Parsegian, 496-1135). For more information, send fax to C. Hyde, 402-3417.

Upjohn Speakers To Lecture

The NIH Office of Education is sponsoring the first in a series of seminars designed to inform NIH trainees about opportunities for research support, collaborations and employment in the private sector. Upjohn Co. is featured in the first presentation Dec. 9 at 3 p.m. in Lipsett Amphitheater, Bldg. 10.

The following speakers and topics will be featured: Dr. Theodore Cooper, chairman of the board and chief executive officer, Upjohn Co., “How Academia, Government and the Pharmaceutical Industry Interface in Scientific Research”; Dr. Donald Anderson, executive director, discovery research, Upjohn Laboratories, “Upjohn Laboratories—Research Direction in the Next Decade”; George Kaufman, vice president, worldwide medical sciences liaison and scientific affairs, Upjohn Co., “Worldwide Medical Sciences Liaison Program”; Rudy Jansen, director, medical sciences liaison program international support, Upjohn Co., “Medical Sciences Liaison Perspective in Europe.”

The talks will include ways in which researchers here or those entering academia may interact with Upjohn, how a researcher can receive support from Upjohn, and employment opportunities with the company.

Following the talks, a reception will be held. Preregistration is required—call 496-2427.

Six Named to National Advisory Council on Aging

Six new members have been named to the National Advisory Council on Aging. They are: Dr. Rodney M. Coo, chairman, department of community medicine, Saint Louis University School of Medicine; Dr. C. Conrad Johnston, Jr., professor of medicine, Indiana University School of Medicine; Hadassah S. Loeb, attorney, New York; Mary K. McEachron, administrative director and general counsel, Buck Center for Research in Aging, Novato, Calif.; Dr. Nelson McGhee, Jr., interim president, Morehouse School of Medicine; and Dr. Richard Miller, professor, department of pathology, University of Michigan School of Medicine.

Coe is a well-known authority in health care and in the past 20 years has published numerous books and journal articles in the area of health care for the elderly.

Johnston specializes in endocrinology as well as research on bone and mineral metabolism. He has been a professor at Indiana University School of Medicine since 1969, and sits on the editorial boards of the Journal of Bone and Mineral Research, and the Journal of Clinical Endocrinology and Metabolism.

Loeb is a founding member of the National Academy of Elder Law Attorneys, which advises attorneys and clients on housing, homecare, nursing home options, government benefits and other issues affecting older people. Before joining the Buck Center, McEachron was a partner with the law firm Orrick, Herrington & Sutcliffe in San Francisco where she specialized in corporate reorganization.

McGhee is the founder and president of the Sickle Cell Foundation of Georgia, Inc., as well as a member of the board of directors of the National Association of Sickle Cell Disease.

Miller’s principal research areas are aging and immune function, bone marrow transplants, and T-lymphocyte activation.

Structural Biology Group Meets

The NIH Intramural Structural Biology Group will hold a series of seven meetings beginning on Wednesday, Dec. 2 at 4:30 p.m. in Bldg. 6, Rm. 4A05. The meetings, designed to familiarize members of NIH’s structural biology community with one another, will be held at 2-3 week intervals, mainly in Bldg. 31 conference rooms, and last an hour or so. The Dec. 2 meeting will be on “X-ray Crystallography.” Future meeting dates, topics and contacts are as follows: Dec. 16, NMR, (A. Byrd, 301-846-1218); Jan. 6, Protein Expression (P. Wingfield, 402-1940); Jan. 21, Electron Microscopy, (A. Steven, 496-1032); Feb. 3, Computational Structural Biology, (R. Herrington, 496-4783); Feb. 24, Protein Sequencing/Synthesis, (J. Coligan, 496-3213); Mar. 10, Other Forms of Structural Biology, (A. Parsegian, 496-1135). For more information, send fax to C. Hyde, 402-3417.

Upjohn Speakers To Lecture

The NIH Office of Education is sponsoring the first in a series of seminars designed to inform NIH trainees about opportunities for research support, collaborations and employment in the private sector. Upjohn Co. is featured in the first presentation Dec. 9 at 3 p.m. in Lipsett Amphitheater, Bldg. 10.

The following speakers and topics will be featured: Dr. Theodore Cooper, chairman of the board and chief executive officer, Upjohn Co., “How Academia, Government and the Pharmaceutical Industry Interface in Scientific Research”; Dr. Donald Anderson, executive director, discovery research, Upjohn Laboratories, “Upjohn Laboratories—Research Direction in the Next Decade”; George Kaufman, vice president, worldwide medical sciences liaison and scientific affairs, Upjohn Co., “Worldwide Medical Sciences Liaison Program”; Rudy Jansen, director, medical sciences liaison program international support, Upjohn Co., “Medical Sciences Liaison Perspective in Europe.”

The talks will include ways in which researchers here or those entering academia may interact with Upjohn, how a researcher can receive support from Upjohn, and employment opportunities with the company.

Following the talks, a reception will be held. Preregistration is required—call 496-2427.

Six Named to National Advisory Council on Aging

Six new members have been named to the National Advisory Council on Aging. They are: Dr. Rodney M. Coo, chairman, department of community medicine, Saint Louis University School of Medicine; Dr. C. Conrad Johnston, Jr., professor of medicine, Indiana University School of Medicine; Hadassah S. Loeb, attorney, New York; Mary K. McEachron, administrative director and general counsel, Buck Center for Research in Aging, Novato, Calif.; Dr. Nelson McGhee, Jr., interim president, Morehouse School of Medicine; and Dr. Richard Miller, professor, department of pathology, University of Michigan School of Medicine.

Coe is a well-known authority in health care and in the past 20 years has published numerous books and journal articles in the area of health care for the elderly.

Johnston specializes in endocrinology as well as research on bone and mineral metabolism. He has been a professor at Indiana University School of Medicine since 1969, and sits on the editorial boards of the Journal of Bone and Mineral Research, and the Journal of Clinical Endocrinology and Metabolism.

Loeb is a founding member of the National Academy of Elder Law Attorneys, which advises attorneys and clients on housing, homecare, nursing home options, government benefits and other issues affecting older people. Before joining the Buck Center, McEachron was a partner with the law firm Orrick, Herrington & Sutcliffe in San Francisco where she specialized in corporate reorganization.

McGhee is the founder and president of the Sickle Cell Foundation of Georgia, Inc., as well as a member of the board of directors of the National Association of Sickle Cell Disease.

Miller’s principal research areas are aging and immune function, bone marrow transplants, and T-lymphocyte activation.

Structural Biology Group Meets

The NIH Intramural Structural Biology Group will hold a series of seven meetings beginning on Wednesday, Dec. 2 at 4:30 p.m. in Bldg. 6, Rm. 4A05. The meetings, designed to familiarize members of NIH’s structural biology community with one another, will be held at 2-3 week intervals, mainly in Bldg. 31 conference rooms, and last an hour or so. The Dec. 2 meeting will be on “X-ray Crystallography.” Future meeting dates, topics and contacts are as follows: Dec. 16, NMR, (A. Byrd, 301-846-1218); Jan. 6, Protein Expression (P. Wingfield, 402-1940); Jan. 21, Electron Microscopy, (A. Steven, 496-1032); Feb. 3, Computational Structural Biology, (R. Herrington, 496-4783); Feb. 24, Protein Sequencing/Synthesis, (J. Coligan, 496-3213); Mar. 10, Other Forms of Structural Biology, (A. Parsegian, 496-1135). For more information, send fax to C. Hyde, 402-3417.
Hopes Dim for a Protective Hepatitis C Vaccine, Say NIAID Scientists

By Laurie Doepel

Researchers at NIAID report that the natural immune response to infection with hepatitis C virus (HCV) does not protect chimpanzees against reinfection with the same or different strains of the virus. Their study is the first to prove that HCV reinfection can occur. Even four exposures to HCV stimulated only weak immune protection.

The news is a setback for scientists trying to develop human hepatitis C vaccines. "If you cannot show natural protection against infection by closely related viruses, or even the same virus on rechallenge, then prospects for vaccine development become somewhat bleak," comments the chief of NIAID's hepatitis virus section, Dr. Robert Purcell, who with Dr. Patrizia Farci, a visiting scientist from Italy, led the study.

HCV infection occurs worldwide, among all socioeconomic classes in developing and developed countries. In the United States, HCV is linked to 20 percent of clinical hepatitis cases. More than half of all people exposed to the virus become chronic carriers. Up to 20 percent of carriers later develop cirrhosis, a progressive liver disease.

Since the late 1970's, individuals with multiple episodes of acute hepatitis not due to hepatitis A or B viruses had been observed. This and similar observations in chimpanzees suggested that more than one non-A, non-B (NANB) hepatitis agent might exist. Alternatively, these observations might be explained as reactivation of or reinfection with HCV. With the discovery of HCV in the late 1980's, it became possible to investigate these theories.

Farci, Purcell and their collaborators decided to conduct a retrospective analysis of clinical specimens taken from five chimpanzees that over a 3-year period had been reinoculated with the same or different strains of HCV, some up to four times. The results proved that reinfection occurred several times in chimpanzees rechallenged with different HCV strains, and even in one chimpanzee rechallenged with the same dose of the original virus.

Upon rechallenge, primary immunity in all the animals afforded some protection against biochemical hepatitis (elevated liver enzyme levels). HCV also circulated in the blood for shorter periods of time. Liver biopsies, however, still showed evidence of hepatitis. Also, the risk of developing chronic infection was the same as that after a primary infection.

"That's ominous," says Purcell, "because HCV clearly is implicated in end-stage liver disease and cirrhosis in a proportion of patients, and is almost surely etiologically implicated in some liver cancers, particularly in those patients who do not carry hepatitis B virus."

Besides proving that HCV reinfection occurs, their findings may explain an old clinical puzzle. Several years ago, scientists thought there were two kinds of NANB hepatitis: one developing shortly after exposure (short-incubation) and one with an incubation period of 7 to 8 weeks (long-incubation). The former occurred most frequently among hemophiliacs and intravenous-drug users. The difference in incubation periods was once thought to be due to two different viruses.

"I think Dr. Farci's data can best be interpreted to suggest that the short incubation period of non-A, non-B hepatitis of some years ago was really re-exposure to hepatitis C," says Purcell. "Hemophiliacs and drug users were the two groups in which you saw that most frequently, and they are the two groups you'd expect to have repeated exposure."

Painstaking work was required to conduct the study. HCV cannot be cultured in the laboratory, so Farci used the polymerase chain reaction (PCR) technique, which detects tiny amounts of genetic material, to look for evidence of HCV RNA in the blood. After obtaining such samples, she sequenced snippets of the RNA from a highly variable region of the virus. She then compared the sequences of the original virus and the one recovered after each challenge to determine whether the reinfection was due to the primary virus or to the new virus.

The highly variable region that Farci sequenced is suspected to be important for stimulating neutralizing antibodies, those that kill the virus directly. In their look-back analysis, however, "It seems there is no neutralization," says Farci, "because, at least in one chimpanzee, there's been reinfection with the same virus."

HCV was identified in the late 1980's as causing more than 90 percent of NANB transfusion-associated hepatitis in the U.S. With the introduction in 1990 of blood-screening tests, the rate at which this form of hepatitis occurs has been reduced to about 1 percent.

Intravenous-drug use now is the major identifiable risk behavior for HCV infection. Nearly all intravenous-drug users are thought to be infected by HCV eventually, and Purcell and his colleagues now suspect many also have been reinfected. In the U.S., intravenous-drug users make up about 30 percent of the HCV-infected population.

Other risk factors for HCV infection remain more obscure. "Many people come into contact with HCV in ways we don't really understand," says Purcell. Occupational exposure to blood, sexual or household contacts and perinatal exposure all appear to pose some, but seemingly not a great, risk. Forty percent of HCV hepatitis cases in the U.S. cannot be linked to a known risk factor. Identifying all the modes of HCV transmission is important, the researchers say, for preventing HCV hepatitis through educational programs or by vaccination.

"We're just in the very early stages of understanding the immune response to HCV," says Purcell. "Our immediate goal is to understand the immunology and molecular biology of this virus so we can figure out exactly what to do to develop a vaccine."

NICHD's Klausner Honored

Dr. Richard Klausner, head of NICHD's Cell Biology and Metabolism Branch, has been awarded this year's William Dameshek Prize by the American Society of Hematology in recognition of his pioneering work in the field of iron metabolism. It was in Klausner's lab that the iron responsive element was discovered, a finding that has led to major advances in the understanding of gene regulation at the level of messenger RNA translation and degradation.

The iron responsive element is a short hairpin-shaped motif in the messenger RNA encoding key proteins that control iron uptake and storage.

Using the most sophisticated tools of molecular biology available, Klausner has also made his mark on cell biology in general. His lab is widely recognized for its work on T lymphocytes, clarifying the structure of the T cell antigen receptor and how it relates to the function of this crucial molecule (T cell antigen receptors are the "antennae" that sense the presence of foreign molecules in the body). During the course of this work, he and his colleagues discovered "architectural editing," a quality control process whereby incorrectly assembled protein complexes are eliminated before they are shipped to the cell surface or exported from the cell. Klausner's research has also had a major impact on biologists' concepts of the anterograde and retrograde (forward and backward) traffic patterns in cells that secrete proteins. In recognition of these achievements, he also received the prestigious Lederle Prize in November.

Dr. Richard Klausner
MINORITY AGING
(Continued from Page 1)

psychologists, demographers, and physicians to trade research ideas. A total of 15 faculty members from universities across the country, as well as NIA researchers, discussed specific issues of aging related to African Americans, Hispanics, Asian Americans and Pacific Islanders, and Native Americans. Participants also were given pointers on applying for NIH research grants.

The effectiveness of the summer institute was summarized in the comments of participant Eileen Malone Beach of the University of Alabama, who said, "One of the things the conference brought out for me was the multidisciplinary perspective. I'm fresh out of the Ph.D. program and I appreciate this opportunity. There's a lot in this conference that will certainly influence my research, and it will also have a big impact on how I teach my courses."

For more information on next year's research conference and other NIA programs geared toward ethnic minorities, contact Shirley Bagley, 496-0765. -Charles R. Whitt

CORNEA
(Continued from Page 1)
recipient tissue typing.

More than 40,000 corneal transplant operations are performed annually in the United States. But about 1 in 10 patients receiving a corneal transplant is at high risk of rejecting the donor tissue, or graft, because: (1) they have previously rejected a corneal transplant, or (2) new blood vessels have grown into their damaged cornea, introducing immune cells into this normally avascular region of the eye that may later recognize the graft as foreign and attack it.

If donor-recipient tissue typing were to become standard practice in corneal transplantation, it would greatly increase the cost and waiting period for this operation. The process of matching antigens is labor intensive and would add at least $1,000 to the cost of the procedure, now about $5,000. Moreover, there is already a national shortage of donor corneas, high-risk patients would likely have to wait even longer for a suitable donor cornea.

The researchers also noted that CCTS patients who matched the donor's blood type had a better outcome than unmatched patients. This finding was particularly interesting because ABO compatibility has been shown in several other organ transplantation studies to enhance graft survival, but it had never been reported in corneal transplantation research.

"If future studies prove ABO compatibility has an effect on corneal transplant survival," said Dr. Carl Kupfer, NEI director, "this easily administered and inexpensive test would improve transplant survival without substantially increasing the cost of the operation." -

Symposium To Honor NIDDK's Gerald Aurbach

Dr. Gerald Aurbach, the longtime chief of NIDDK's Metabolic Diseases Branch who died tragically last year, will be honored at an upcoming symposium for his contributions to the field of endocrinology. The symposium will take place Dec. 8 and 9 in Lister Hill Auditorium, Bldg. 38A.

Sponsored by NIDDK, the 2-day meeting is titled "Frontiers in Metabolic Endocrinology and Will Cover Hormone Synthesis and Secretion, Hormone Action, and Primary Hyperparathyroidism. Lecturing on these topics will be Aurbach's colleagues, including Dr. Louis M. Sherwood, Merck Co.; Dr. Edward M. Brown, Brigham and Women's Hospital; Dr. Lorraine A. Fitzpatrick, Mayo Clinic; Dr. Kazushige Sakaguchi, NIDDK; Dr. Arthur M. Broadus, Yale Medical School; Dr. John T. Ports, Jr., Massachusetts General Hospital; Dr. Allen Spiegel, NIDDK; Dr. Michael A. Levine, Johns Hopkins; Dr. Stephen J. Marx, NIDDK; Dr. John P. Bilezikian, Columbia University; Dr. John L. Doppman, Clinical Center diagnostic radiology department; Dr. Jeffrey A. Norton, NCI; and Dr. Maria-Luisa Brandi, Florence, Italy.

Special tributes to Aurbach will be given by Dr. Gary Brooker of Georgetown University, and Dr. Phillip Gorden, NIDDK director. Aurbach came to NIH in 1959 as a research associate. He was later named chief of the section on mineral metabolism in the Metabolic Diseases Branch and became chief of the branch in 1965. Aurbach gained international acclaim for isolating parathyroid hormone (PTH), a major regulator of blood calcium that plays a key role in bone health. While at NIH, he made major contributions toward understanding the structure and function ofPTH, and the mechanism of action of PTH and calcitonin, another calcium-regulating hormone that influences bone health.

According to Gorden, Aurbach's research contributions translated into medical progress. "The symposium is a fitting tribute to a dedicated scientist whose studies have helped alleviate disease and suffering among patients with hormonal diseases that affect the bones," said Gorden. "We will not let his legacy or his work be forgotten."

"He left us a rich legacy—in the research he conducted, in the many investigators he trained and in the example he set," said Spiegel. NIDDK director of intramural research who once trained under Aurbach, in an interview with the Record last year. Aurbach's contributions have also been recognized by the scientific community. In 1986, he was elected to the prestigious National Academy of Sciences. He won the 1983 Gairdner Foundation International Award, regarded by some as a predictor of future Nobel Prize winners.

The symposium will run from 1 to 5 p.m. on Tuesday, Dec. 8 and 8:30 a.m. to 1 p.m. on Wednesday, Dec. 9. The agenda and registration forms can be obtained from Richard Abizaid, ComputerCraft Corp., (301) 230-0052.

Eye Council Names Three

Three new members have been appointed to the National Advisory Eye Council. They are: Dr. David Lee Guyton, Dr. Lynn Cyert and Sadako Sato Holmes, a nurse.

Guyton, a specialist in binocular vision and a widely recognized teacher of ophthalmic optics, has served on NEI's program planning panel for strabismus, amblyopia, and visual processing, and on the DRG visual sciences study section. He is professor of ophthalmology at Wilmer Ophthalmological Institute, Johns Hopkins.

Cyert is professor of optometry and pediatric clinic chief at Northeastern State University in Tahlequah, Okla. She is widely known for her active role in academic affairs, contract negotiations and financial management at Northeastern State.

Holmes, a recognized leader in health care management, has been the executive director of the National Black Nurses Association since 1983. Her experience combines policy, development and planning in both clinical and administrative environments.
CC's Harvey Alter Receives Landsteiner Award
By Sue Kendall

Dr. Harvey Alter, chief of the immunology section of the Clinical Center department of transfusion medicine, is being honored this month with the Karl Landsteiner Memorial Award, the premier award conveyed by the American Association of Blood Banks. The award commemorates the physician who discovered ABO blood types, an achievement that laid the foundation of modern blood transfusion procedures. It honors one or more individuals who are known internationally for contributions to immunohematology, transfusion medicine, or a related field.

Alter will share the award with five researchers, from Chiron Corp. and the Centers for Disease Control. Each organization has, over many years, made crucial steps toward identifying, understanding, and preventing hepatitis C, formerly known as non-A, non-B hepatitis.

Hepatitis, a liver disease characterized by nausea, vomiting, fatigue, and jaundice, can be caused by any of several viruses. In most cases, the disease is mild or clinically nonapparent. "At one time, all hepatitis was thought to be caused by two viruses: A or B," explains Alter. Through the 1960's and 1970's, Alter and colleagues Dr. Robert Purcell and Dr. Stephen Feinstone began seeing hepatitis-like symptoms developing in open-heart surgery patients who'd had numerous blood transfusions but who tested negative for both hepatitis A and B.

The researchers surmised that the cause was probably a virus, but it wasn't A or B. "We called it non-A, non-B hepatitis because we didn't really know that it was caused by a virus or how many viruses might be involved," he explains. "It took 15 years to find the answers."

During that period, Alter focused on describing the disease's clinical course. "The initial illness was very mild, but we found that about half of these patients developed chronic hepatitis, and about 20 percent of those developed histologic evidence of cirrhosis. Now we know that a very small portion can also develop liver cell cancer," he says.

Alter and his coworkers were also the first to show, by inoculating chimpanzees, that the virus was transmissible. At present, hepatitis C virus (HCV) is transmitted predominantly through needle sharing between IV drug users. Infection through unprotected sexual contact with an infected person, needle-stick accidents, or from mother to fetus is also possible, but these are not currently thought to be the main modes of transmission. Although the early HCV cases were seen in posttransfusion patients, that risk has been drastically reduced due to the development of a screening test to detect antibodies to HCV.

Developing such a test proved difficult because HCV is present in very small amounts in serum. "Using standard serologic techniques, the virus still would not have been found," says Alter. Co-awardees at Chiron and CDC used molecular biology, infectious chimpanzee plasma, and unique cloning techniques to actually "discover" HCV, a scientific first. Alter explains: "Usually, one already has identified the virus, has a test for it, has it fairly well characterized, and then clones it. Chiron reversed the whole process using cloning to express a viral antigen and then as a means to establish an assay to detect the corresponding antibody." Alter says this is a very important method because of its potential to discover other obscure viruses.

After Chiron's discovery, the virus' name was changed to hepatitis C, and Chiron set about developing a blood test to detect it. They were successful in 1989. The specificity of the assay was established using pedigreed sera obtained from prospective posttransfusion hepatitis studies conducted by Alter and his colleagues at NIH. A more sensitive version of their test was licensed earlier this year. Other tests, called surrogate assays, indirectly pick up cases of HCV by detecting elevated levels of a liver enzyme, ALT, or by identifying prior exposure to hepatitis B, a disease transmitted by many of the same routes as HCV.

"The key to this disease was the initial prospective studies that were set up to follow patients who received blood transfusions."

Reflecting on the people and events being recognized by the award, Alter says, "The key to this disease was the initial prospective studies that were set up to follow patients who received blood transfusions. So much of what we've accomplished here has come out of these studies — things that we didn't necessarily know about ahead of time. We just knew that people were getting hepatitis, and we were trying to see why. Non-A, non-B hepatitis kind of fell out of that. Without having done those prospective studies, this entity might not have come to the fore because it was so clinically inapparent in the acute phase. We had to follow the patients to pick up biochemical evidence of hepatitis." He credits fellow CC'ers Jacqui Melpolder, Dee Koziol, Betsy Jett, and James Shih for their diligent assistance in these long-term studies.

Alter and his team continue to study non-A, non-B hepatitis to determine the existence of other, undiscovered viruses. "We now know that at least 90 percent of non-A, non-B hepatitis is due to a single agent, the hepatitis C virus," he says. "The possibility is that everything is C, and that our test is still not good enough to pick it all up, or that some cases are just misdiagnosed. But the most intriguing possibility is that there is another agent, in essence, non-A, non-B, non-C. We're working on that now."
important to work on next."

When NIH director Dr. Bernadine Healy was casting about last summer for a new deputy director for intramural research to take over from acting director Dr. Carl Kupfer, Liotta had, serendipitously, just finished a position paper drafted at the request of his boss at NCI, Dr. Alan Rabson. The paper happened to include Liotta's opinions on the strengths and needs of the Intramural Research Program (IRP) at NIH. At the suggestion of search committee chairman (and NCI director) Dr. Samuel Broder, Liotta decided to apply for the job, and brought that paper with him for his first interview with Healy.

"I didn't think I was a serious candidate until I was called to meet her," he recalls. "But I was really inspired when I met with Dr. Healy. I felt a great surge of excitement for her vision. She has a really good dual commitment to both basic and clinical research. She also believes in delivering advances made at the bench to the bedside as soon as possible, which is also my goal."

Heartened by Healy's mandate to recruit the best scientists for NIH's intramural program and innovate within the IRP, Liotta accepted the job.

"My interaction with her inspired me to do it," he says. "What's more, she insisted I keep my lab. I think that helps me do my job in Building 1 better—I can understand both sides, and sympathize with the needs of the scientists and lab chiefs, and factor that in when I make decisions."

Liotta embraces the image of "critical mass" to describe NIH's scientific strength, but even that metaphor doesn't encompass his enthusiasm.

"There is an electricity and cross-fertilization that comes from the diverse expertise and proximity of scientists here, which we want to make even better," he says.

Before Liotta took the job, a task force headed by NICHD's Richard Klausner was charged with reporting on how exchanges between scientists at the 16 institutes at NIH could be stimulated. The report of the task force represented the collective sentiments of scientists at all levels of the intramural program. Significantly, both the task force's report and Liotta's NCI position paper came to similar conclusions. "We need," says Liotta, "to put procedures in place so that the spirit of Research Festival will characterize NIH year round."

A variety of new stimuli aimed at achieving this goal of sustaining the highest levels of communication and collaboration includes:

- Creation of "scientific senates" in specific disciplines that would form nuclei for the exchange of ideas and insights.

- A new scientific newsletter for NIH scientists, tentatively titled "The NIH Scientists'" that would bridge the information gap between bench scientists, scientific directors and the Office of the Director. "It will be a way to instantly communicate new policies and scientific accomplishments directly to scientists and get their input back to us," says Liotta.

- Articles would focus on labs and scientists whose fields are currently hot. Observes Liotta, "Over the years, I've been more and more impressed by the depth of fantastic research going on here. We want to increase the synergistic atmosphere on campus."

- A new "Breakthroughs" seminar series. "We will invite intramural people from certain disciplines to learn about the hottest work of new, young scientists. It will boost morale, and stimulate collaboration."

- Liotta also wants to enhance both pay and the recruitment and retention of the best scientists at NIH. He is facing two external challenges to his efforts to improve the environment for NIH scientists: One, the Senior Biomedical Research Service (SBRS) pay category, which would put top scientists' pay more in line with their colleagues in academia and industry, is currently stalled at the Office of Management and Budget. Two, the Office of Government Ethics still maintains its ban on the receipt of honoraria by federal workers, though a pending court case challenges that decision.

- "I am working with Dr. Healy to help these outside groups understand not only our needs but also the impact these decisions have on the quality of science and retention of scientists at all levels," Liotta said. However, he refuses to wait for outside agencies to act in order to improve the intramural environment.

- "With regard to consulting and outside activities, we have completely changed our policies. Scientists can now make up to $25,000 in consulting fees per company, with no limit on the number of companies they can advise, and they can consult up to a ceiling of 500 hours per year. The scientific directors and institute directors unanimously approved this change, which is now in effect."

- "We have also broadened eligibility for outside medical practice, especially to accommodate our newly merged ADAMHA components," he explained. "Before, only junior level physicians were permitted to practice outside. Now, senior scientists are eligible for outside practices as well."

Also, for the first time, the scientific directors have approved a formalized tenure track for NIH scientists, which "should help reduce ambiguity with regard to career goals—"Am I on the track or off?" Liotta said. The new system has two goals: to give young scientists more independence as their skills mature, and to give them a sense of where they stand, especially with regard to the commitment of resources.

- "We have never had this sort of thing before," says Liotta, who, on Jan. 15, will convene a scientific directors' retreat at Stone House to develop a draft implementation policy for later discussion at a forum open to all NIH scientists.

- The rules governing tenure decisions and scientific review are also being made more uniform across ICDs, he reported, and are based more on an investigator's track record than on proposals for the future.

- Another proposed improvement in the life of NIH scientists awaits approval by the surgeon general—an enhanced pay scale for PHS medical officers to improve retention. A greater proportion of the bonuses would be in the form of 1-year contracts. An added feature is that clinical trainees who must enter in slotted positions will be able to enter training even during hiring freezes. This ensures the same continuity for clinical research as exists for basic research.

- On the basic science side, the scientific directors have approved a revised "IRTA" policy allowing new hires to come to NIH up to 5 years after completing their doctorates (instead of the previous 3), and can remain in those positions for up to 5 years of training instead of 3. There are also more generous pay increases possible for each of those years.

- Healy has already signed off on similar enhancements for foreign fellows, approved by the scientific directors, who can come to NIH up to 7 years following their doctorate, and remain for 5 years.

- "This is fantastic," exclaims Liotta. "It will advance our goal of training the biomedical leaders of the future."

- Liotta wants to enhance intramural support for women. He is also concerned about minority issues, as well as those affecting scientists with disabilities. "I don't think of NIH as being made up of women, men,
minors, etc.,” he said. “I think of NIH as being made of people, all working toward the same goal of excellence.”

With that in mind, Liotta, during his first week as deputy director, appointed NIDR’s Dr. Hynda Kleinman to chair the new intramural women scientists’ task force, which will make recommendations to Liotta. “Two of the task force’s recommendations relating to career development and scientific visibility have already been approved by the scientific directors,” he said.

Liotta’s goal is to make NIH “the leading federal agency to have equal pay for all employees based on merit and total equality. We have to be the leader in all issues of equality,” Kleinman and Dr. Michael Fordis, who directs the Office for Education for Liotta, have of Research Services to improve campus infrastructure. “I’m working with Steve Ficca (acting ORS director) on the master plan, a new Clinical Center, and the new Conte and Natcher buildings. I think that’s exciting for the future.”

He acknowledges that a shortage of campus parking is a sore spot with many scientists, but says that Ficca promises 1,500 new spaces by next year (when multi-level parking garage 8 is set to open), and more satellite parking. In addition, as of Nov. 16, the ORS has been able to restore 150 parking spaces near the Natcher Bldg.; construction site.

“In all areas where NIH scientists have concerns, we are making changes where changes can be made,” he assures.

Future initiatives include:
- Improvements in day care arrangements for employees. “Our general goal is to improve the quality of life around here, and that includes support for meeting family responsibilities,” comments Liotta.
- Upgrading the monitoring of clinical protocols involving human subject research and strengthening the Office of Human Subject Research under Dr. Alan Sandler.
- Speeding the technology transfer process, and adding a quality control step to patent applications. Invention reports will eventually be computerized so the status of applications can be tracked. “We’re also speeding up the licensing and patenting steps at all levels,” adds Liotta. “We are educating scientists on what a patent is, and what is patentable. This will ultimately help patients.” The CRADA subcommittee under Dr. Dinah Singer and a new technology transfer task force that Liotta will initiate with Dr. Jay Moskowitz, NIH associate director for science policy and legislation, will monitor inventions and licenses and assure that cooperative research and development agreement (CRADA) research is peer-reviewed by boards of scientific counselors.
- Improving the distribution of reagents and materials, including genes, cell lines and probes developed at NIH. Continual requests by outside scientists for these materials is burdensome to many investigators. Under a new system approved by the scientific directors, scientists will be able to send their materials to the American Type Culture Collection (ATCC) in Rockville, which will handle exchanges and material transfer agreements. “This will free up scientists to do what they do best—science,” states Liotta.
- Improve computerization at all levels, with the help of DCRT, NLM and NCRR. “We want to make available the latest technology in imaging, image analysis, database searches, networking and modeling for our scientists,” Liotta said. “This effort will include support groups, training, and work stations to enhance computers at all levels. We will learn from the scientists what they want in terms of support.”

Liotta’s office also oversees animal care and safety at NIH. Informed early in his tenure of an increased incidence of monkey bites and scratches among employees using animals in research, which exposes them to such dangers as the simian form of AIDS and herpesvirus B, Liotta immediately put NIAID scientific director Dr. John Gallin in charge of a committee to rewrite guidelines for safe handling of animals. “It will be like the training scientists receive for handling radioactive materials, except it will focus on animals,” Liotta said. “I’m very relieved that our new procedures are in place.”

Much has been made in recent months of NIH’s relationship to the Foundation for Advanced Education in the Sciences (FAES). Liotta says NIH lawyers found two potential violations in FAES relation to the agency: no solicitation of outside funds is allowed, and individuals supported by FAES funds must be chosen by competition, not discretion. Also, outside money must be controlled by the outside donors.

“We will continue the valuable FAES functions so long as what we do is legal,” said Liotta. He added that NIH Associate Director for Administration Jack Mahoney has encouraged FAES to seek legislative authorization.

The FAES Bookstore in Bldg. 10 is also under review by Liotta and Dr. Mark Sobel, who is chairing a committee on the matter. “We are not getting rid of the bookstore,” Liotta cautions. “But we are required to make certain the contract is awarded fairly and that intramural needs are met.”

Liotta says authority for a separate foundation at NIH has been obtained but is, as yet, without funds. “It will be used to support endowed chairs at NIH and will be called the NIH Foundation for Biomedical Research. It’s a complete mechanism for hiring someone, not a supplement to a federal salary.”

Liotta remembers that in the early days of his NIH career, “we used to be quietly confident about the IRP. But nowadays, we are actively promoting it. We need to demonstrate more aggressively the fantastic return you can get on investment in intramural NIH research.”

To that end, Liotta testified Sept. 23 before a House budget committee chaired by Rep. James Oberstar on the health returns enjoyed by the public as a result of public investment in research. His testimony included some 200 examples of intramural discoveries during the period 1988-1992.

In order to heighten the program’s profile, Liotta is currently searching for a new, more vibrant name for the IRP.

“Dr. Healy wants the IRP to be known as the flagship of the NIH system. We want to have NIH be a household word.”

Whether or not the name is ever changed, scientists around here are sure to remember the name of the man who embraced the challenge of invigorating the intramural community when it was most needed.
Wegener's Foundation Lauds Two NIAID Scientists

Two scientists from NIAID were recently honored by the Wegener's Foundation for their outstanding research on this rare vasculitic disease.

The honorees are Dr. Gary S. Hoffman, senior researcher and head of the vasculitis and related diseases section of the Laboratory of Immunoregulation, and Dr. Menachem Rottem, a visiting associate/medical staff fellow in the mast cell physiology section of the Laboratory of Clinical Investigation.

Wegener's granulomatosis involves an inflammatory process affecting blood vessels. Damage to vital organs results, leading to a number of serious health problems. Headquartered at NIH, the nonprofit Wegener's Foundation disseminates information to patients, their families and health care providers to promote a better understanding of the disease.

Judith K. Williams, president of the foundation's board of directors, says, "We are committed to encouraging medical researchers to find answers to the puzzle of Wegener's granulomatosis—its causes and state-of-the-art treatments for the disabling disease. Currently, we have no understanding of what causes the disease and the present treatments have major long-term side effects." Williams also coordinates the NIH HIV Counseling Program and supervises NIAID social workers.

NIAID director Dr. Anthony S. Fauci says, "The Wegener's Foundation is to be congratulated for fostering a better understanding of the disease. Just as important is the role of the foundation in promoting and encouraging research to find improved treatments for Wegener's granulomatosis. NIAID is proud of this recognition of the work of our talented scientists."

The foundation cited Hoffman for his prospective analysis of 158 Wegener's patients published in the Annals of Internal Medicine. His other research interests include systemic vasculitides, in general, and Takayasu's arteritis.

He and his colleagues are studying the epidemiology, clinical course, treatment and pathophysiology of these disorders.

This month, Hoffman will assume the position of chair of the rheumatology and immunology department at the Cleveland Clinic in Ohio.

Rottem is a pediatrician from Jerusalem, Israel, and vasculitis in children is one of his research interests. The results of his long-term prospective study of Wegener's granulomatosis in 23 pediatric and adolescent patients will be published in the Journal of Pediatrics.

FAES Announces Spring Courses

The FAES Graduate School at NIH announces the schedule of courses for the spring semester. The evening classes sponsored by the Foundation for Advanced Education in the Sciences will be given on the NIH campus.

Tuition is $60 per credit hour, and courses may be taken for credit or audit. Courses that qualify for institute support as training should be cleared with the supervisors and administrative officers as soon as possible. Both the vendor's copy of the training form and the FAES registration card must be submitted at the time of registration.

Courses are offered in biochemistry, biology, biotechnology, chemistry, computer science, immunology, languages, mathematics, medicine, microbiology, pharmacology, psychology, psychiatry, statistics, toxicology, administration and courses of general interest.

It is often possible to transfer credits earned to other institutions for degree work, and many courses are approved for AMA category I credit.

Classes will begin Jan. 25, mail registration ends Dec. 31, and walk-in registration will be held from Jan. 11 to 15. Spring schedules will be available in early December at the graduate school office in Bldg. 60, Suite 230; the Foundation Bookstore, Bldg. 10, Rm. B1L101; and the business office, Bldg. 10, Rm. B1C18.

To have a schedule sent, call 496-7977.
NIH Summer Student Returns as NINDS Grantee
By Shannon Garnett

Eighteen years ago, Alice McKnight came to NIH as a summer student to pursue her interests in science and medicine. This year Dr. Alice McKnight Garner returned to the NIH extended community as a neonatologist and an NINDS grantee at the University of Southern California School of Medicine.

A native of the Washington, D.C. metropolitan area, Garner graduated from Calvin Coolidge Senior High School, where she says her scientific career began. She attended Southern University in Baton Rouge, earning a B.S. in biochemistry in 1978. Three years later she received her M.S. in organic chemistry from that same university. In 1981 she entered Howard University School of Medicine, where she later earned a medical degree. Garner remained in D.C. to finish an internship in the department of pediatrics at Howard University Hospital. She completed her residency in 1988 in the department of pediatrics at Michael Reese Hospital and Medical Center in Chicago, and went on to the division of neonatology at Johns Hopkins Hospital in Baltimore, where she was a neonatology fellow. From 1990 to 1991 she served as an instructor at Johns Hopkins Hospital.

Garner has received support from various NIH programs throughout her career. "In my first position at the NIH I was introduced to different laboratory techniques, but researching in the library was what I enjoyed the most." In the summers of 1974 and 1975, she worked at NIH as a summer aide doing biochemical assays of cerebrospinal fluid and urine from patients with mucopolysaccharidoses. Her 1981 master's degree in chemistry from Southern University was the result of an NIH Minority Biomedical Research Support grant.

Garner returned to NIH in 1981 as a summer research fellow, studying the effects of desmoplasia in breast cancer. As a national medical fellow in 1982, she continued to work on the myofibroblastic response to invasive tumors and presented her findings at the end of the summer at the NIH research fellowship conference. In 1983, again as a national medical fellow, she studied the physical properties of sickled cells.

Her current research involves studying the effects of bacteria on brain blood vessels using a cranial window technique. While at Hopkins she acquired the technical expertise to study cerebrovascular injury utilizing this model, which allows for direct observation of the vascular system of the brain.

"In between my research, I take care of babies," said Garner, whose medical practice is in the division of neonatology and pediatric pulmonology at Children's Hospital in Los Angeles, keeping her extremely busy. "What is good about having a research background is that I don't have to be on call all of the time...I get a break. I get to spend time with my family. On the other hand, when I'm taking care of the babies sometimes I don't go home." Perhaps this is why when asked what her hobbies and pastimes are, she answers, "Trying to keep up with my family. It's hard because there isn't a lot of time." Garner, who is expecting her second child, resides in California with her husband and son.

Her interests in biomedical research continue to grow through her NIH sponsorship. Now as both a researcher and a neonatologist, she credits her success partly to her NIH mentors who advised her to pursue a clinical research career. "I can practice medicine and I can do research," she said.

In addition to her extensive research and medical duties, Garner also imparts her knowledge to future research scientists and other physicians by teaching at the University of Southern California School of Medicine, where she has been assistant professor of clinical pediatrics since 1991.

Her advice to young people who aspire to be physicians and scientists: "Get as much exposure as you can as early as possible. There are many available summer research programs. The exposure allows you to make intelligent and informed career decisions." •

Olden Hosts ICD Directors in North Carolina

NIEHS director Dr. Kenneth Olden is unquestionably a scientist, but he is also an educator and a communicator. When he was appointed director in June 1991, he put communications—both internal and external—high on his list of priorities. In keeping with this initiative, Olden immediately began a program to bring each of the NIH institute directors to NIEHS in Research Triangle Park, N.C.

The first invitee was NIGMS director Dr. Ruth Kirschstein. Her visit to the 509-acre NIEHS campus took place less than 4 months after Olden's appointment. A long-time friend and scientific associate of Olden's, Kirschstein, a leader in women's health and minority training, spoke with pride of various NIGMS programs.

The second visitor was Dr. Samuel Broder, director of NCI. He presented a seminar entitled, "National Cancer Program: Past, Present and Future," in which he described advances and challenges in cancer research. His talk and visit were especially fitting since NCI and NIEHS have been traditional partners in research. Approximately one-third of the NIEHS appropriation goes to support cancer-related research, which has been critical to the national cancer program. Broder toured the NIEHS campus and discussed science with several NIEHS and university investigators whose work is closely associated with the process of carcinogenicity from exposure to environmental agents.

Last June, the first director of NIDCD, Dr. James B. Snow, Jr., presented highlights of his institute's research, discussing topics of mutual interest to the two institutes.

The next director to travel south was Dr. Lawrence E. Shulman of NIAMS, who outlined the scientific and clinical content of the five different fields that comprise the NIAMS mandates.

"Open dialogue," Olden said by way of explaining the reason for the visits, "is the key to greater understanding and appreciation of how the various segments of the NIH can work together to provide the greatest impact on the health of all Americans."

He is planning to continue the program until the head of each ICD has had an opportunity to visit NIEHS. "I'm very proud of our facility," Olden said, "and I am also proud of the science conducted here. I am pleased to be able to share them both with my NIH colleagues." •

NIMH Recruits 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 or Nazli Haq, 496-9675. •
Certain Leukemias Linked to Worksite Chemicals

People who have worked in jobs where they have had frequent exposure to chemicals on the skin, to chemical vapors, dusty conditions or solvents and degreasers may be at risk for a certain kind of leukemia. Researchers have linked certain cases of acute myeloid leukemias—those showing the presence of a mutated cancer gene—with occupational exposures to chemicals.

The study, reported in the Journal of the National Cancer Institute, was headed by Dr. Jack A. Taylor of NIEHS and was a collaboration between NIEHS and the Cancer and Leukemia Group B, a multi-institutional cooperative cancer treatment group.

Taylor and his coauthors examined bone marrow DNA from 62 patients newly diagnosed with this type of leukemia for damage to the genetic material known as ras proto-oncogenes. Proto-oncogenes are genes present in all normal cells which, when damaged and activated through mutation or other processes, can turn into cancer-causing oncogenes. Animal studies have suggested that chemical carcinogens may cause mutations that activate oncogenes. Activated ras oncogenes occur in 15 to 30 percent of patients with acute myeloid leukemia.

This study is among the first to associate occupational exposure to chemicals with a specific genetic mutation and leukemia. Dr. Kenneth Olden, NIEHS director, said, “This is an important step in defining the mechanism by which occupational exposures may lead to leukemia. The study underscores our growing ability to prevent disease by identifying underlying mechanisms of disease.”

In the study, patients with activated ras oncogenes were four times more likely to have worked 5 or more years in one or more of 32 identified at-risk occupations, and nearly six times more likely to report 5 or more years in one or more of the 22 high-risk occupations.

Among the patients studied, those who reported breathing vapors or having skin contact with chemicals; nonwhite individuals; and older people had higher rates of ras oncogene activation.

“In the future,” Taylor said, “we may be able to identify the cause of a person’s tumor by looking at the pattern of DNA damage within tumor tissue.” This would enable the prevention of disease by allowing the protection of hazardous exposures in the workplace.

DFM’s May Retires After 34 Years in Government

Mariah May has retired after 34 years in the federal government, including 29 years with NIH. She was most recently an accounting technician in the Federal Assistance Accounting Branch, Division of Financial Management. Originally from North Carolina, May came to Washington shortly after World War II. She started her government service at the United States Patent Office as a messenger on a 6-month temporary position. She obtained permanent status at the Patent Office as a file clerk.

After marrying a patent attorney, she resigned her position to raise a family. During this period, she was active in volunteer work with the school system, Girl Scouts, and various charities.

In 1963, upon the death of her husband, she started a new career at NIH. She began as a coding clerk, and became a team leader in the National Institute of Neurological Diseases and Stroke. She was responsible for collecting data on a study of perinatal research. When this job was phased out, May transferred to the Federal Assistance Accounting Branch, DFM, as an accounting technician. As an employee of the accounting section, she was responsible for obligating extramural grants and contracts, and debt management. She also worked in the grants section, where she processed financial status reports, and most recently has been responsible for indirect cost settlements. She became a valuable source of information on grant matters for many people.

Friends and coworkers gathered at a retirement luncheon to show their appreciation for May’s many years of service, and to wish her well during retirement.

May plans on visiting her two daughters in Texas and Kentucky, and spending more time with her six grandchildren, a great grandson, and many family members and friends.

Female Volunteers Requested

The Hypertension/Endocrine Branch, NHLBI, is currently recruiting female volunteer nurses, ages 18-34 and nonobese, for a study on urinary endothelin. Study lasts about 6 hours, involves two intravenous lines and administration of two drugs that slightly increase blood pressure. Participants will be paid a minimum of $150. For more information call Dr. Klein, 402-2417.

Female Volunteers Requested

On Dec. 15, the Staff Training in Extramural Programs (STEP) committee will sponsor a forum on the rebuttal process. The forum will consider the shared responsibilities of program staff and scientific review administrators in addressing the concerns, criticisms, and frustration of applicants. This forum will experiment with a new format designed to promote small group discussion.

The 2-hour forum will begin with three speakers: Dr. Claudia Blair, director, Institutional Affairs, OD; Dr. Colette Freeman, chief, Cancer Biology Branch, NCI; and Dr. Cheryl Corsaro, scientific review administrator, DRG, who will discuss the rebuttal process.

The panel will address such subjects as: options available to the applicant and how NIH responsibility is divided among program administrators, scientific review administrators, and councils. Interesting case studies will also be discussed.

The forum will be held from 1 to 3 p.m. in Wilson Hall, Bldg. 1, and is open to all NIH personnel. No advance registration is necessary. Attendance will be on a first-come, first-served basis. Continuing education credit is not available. Sign language interpretation will be provided. For more information call, 496-1493.

Computer Training Classes

<table>
<thead>
<tr>
<th>Classes</th>
<th>Dates</th>
</tr>
</thead>
<tbody>
<tr>
<td>LISTSERV Electronic Mailing Lists</td>
<td>12/1</td>
</tr>
<tr>
<td>Technology for Connecting Networks at NIH-NIHnet</td>
<td>12/1, 12/2</td>
</tr>
<tr>
<td>SAS Fundamentals I for Nonprogrammers</td>
<td>12/1, 12/2</td>
</tr>
<tr>
<td>ENTER MAIL</td>
<td>12/2</td>
</tr>
<tr>
<td>Preparing Figures for Publication on the Macintosh</td>
<td>12/2</td>
</tr>
<tr>
<td>BITNET</td>
<td>12/3</td>
</tr>
<tr>
<td>SAS Fundamentals II for Nonprogrammers</td>
<td>12/3, 12/4</td>
</tr>
<tr>
<td>Distributed Database Processing Using Client-Server Technology</td>
<td>12/4</td>
</tr>
<tr>
<td>Designing Tables and Managing a DB2 Database</td>
<td>12/7-12/9</td>
</tr>
<tr>
<td>Memory Management on the PC</td>
<td>12/8</td>
</tr>
<tr>
<td>Relational DBMS Architectures: Why Clients-Server?</td>
<td>12/8</td>
</tr>
<tr>
<td>Physical Models of Cell Locomotion</td>
<td>12/9</td>
</tr>
<tr>
<td>Mainframe Services at NIH</td>
<td>12/9</td>
</tr>
<tr>
<td>Macintosh Networking with TCP/IP</td>
<td>12/10</td>
</tr>
<tr>
<td>Intermediate PC-DOS</td>
<td>12/10-12/11</td>
</tr>
<tr>
<td>Modeling Proteins Folding</td>
<td>12/11</td>
</tr>
<tr>
<td>DB2 Application Programming</td>
<td>12/14-12/18</td>
</tr>
<tr>
<td>Programming in Perl</td>
<td>12/14-12/16</td>
</tr>
<tr>
<td>Image Management &amp; Communication Sys.</td>
<td>12/15</td>
</tr>
<tr>
<td>Laboratory Analysis Package (LAP)</td>
<td>12/17</td>
</tr>
</tbody>
</table>

Classes are offered by the DCRT Training Program without charge. Call 496-2339 for more information.
The NIH Training Center, Division of Personnel Management, offers the following "hands-on" IBM and Macintosh computer courses:

**Personal Computing Training**

<table>
<thead>
<tr>
<th>Course Titles</th>
<th>Starting Dates</th>
</tr>
</thead>
<tbody>
<tr>
<td>PC/GENE</td>
<td>2/8, 2/10</td>
</tr>
<tr>
<td>Welcome to Macintosh</td>
<td>12/11, 1/4, 1/25, 2/4, 2/23</td>
</tr>
<tr>
<td>Adv. Macintosh Techniques</td>
<td>1/14</td>
</tr>
<tr>
<td>MacWrite</td>
<td>2/16</td>
</tr>
<tr>
<td>Intro to WordPerfect 2.0 (Mac)</td>
<td>1/5, 2/17</td>
</tr>
<tr>
<td>Adv. WordPerfect 2.0 (Mac)</td>
<td>12/2, 2/8</td>
</tr>
<tr>
<td>Intro to Microsoft Word 5.0</td>
<td>12/7, 2/3</td>
</tr>
<tr>
<td>Excel-4.0 Level 1</td>
<td>12/8, 1/8, 2/9</td>
</tr>
<tr>
<td>Excel-4.0 Level 2</td>
<td>1/15</td>
</tr>
<tr>
<td>Lotus for Mac-Level 1</td>
<td>12/1</td>
</tr>
<tr>
<td>Intro to Filemaker PRO</td>
<td>12/3</td>
</tr>
<tr>
<td>Adv. Filemaker PRO</td>
<td>1/26</td>
</tr>
<tr>
<td>Intro to 4th Dimension</td>
<td>1/11</td>
</tr>
<tr>
<td>FoxBASE 2.0-Level 1</td>
<td>(upon request)</td>
</tr>
<tr>
<td>FoxBASE 2.0-Level 2</td>
<td>(upon request)</td>
</tr>
<tr>
<td>MacDraw PRO</td>
<td>12/10</td>
</tr>
<tr>
<td>CricketGraph 3.0</td>
<td>2/18</td>
</tr>
<tr>
<td>Intro to PageMaker 5.0</td>
<td>1/27</td>
</tr>
<tr>
<td>QuarkXpress-Level 1</td>
<td>2/24</td>
</tr>
<tr>
<td>PowerPoint 3.0</td>
<td>2/1</td>
</tr>
<tr>
<td>MORE III</td>
<td>(upon request)</td>
</tr>
<tr>
<td>Hypercard</td>
<td>1/6</td>
</tr>
<tr>
<td>3Com PC Network-Level 1</td>
<td>1/11</td>
</tr>
<tr>
<td>3Com PC Network-Level 2</td>
<td>1/7</td>
</tr>
<tr>
<td>3Com PC Network Management</td>
<td>(upon request)</td>
</tr>
<tr>
<td>Intro to Personal Computing for New Users</td>
<td>12/14, 1/13</td>
</tr>
<tr>
<td>Disaster Recovery &amp; Data Retrieval for the PC</td>
<td>1/27</td>
</tr>
<tr>
<td>Intro to DOS 5.0</td>
<td>12/7, 12/18, 1/11</td>
</tr>
<tr>
<td>Intro to Windows 3.0</td>
<td>2/8, 3/2</td>
</tr>
<tr>
<td>WordPerfect for Windows</td>
<td>12/9, 2/17</td>
</tr>
<tr>
<td>Intro to WordPerfect 5.1</td>
<td>12/8, 1/13</td>
</tr>
<tr>
<td>WordPerfect 5.1 - Advanced Topics</td>
<td>12/14, 1/5</td>
</tr>
<tr>
<td>Desktop Publishing w/WP 5.1</td>
<td>2/10</td>
</tr>
<tr>
<td>Printing w/ WP 5.1 and Laser Printers</td>
<td>2/18</td>
</tr>
<tr>
<td>Intro to Harvard Graphics 3.0</td>
<td>2/22</td>
</tr>
<tr>
<td>PageMaker for Windows</td>
<td>2/24</td>
</tr>
<tr>
<td>Intro to Paradox</td>
<td>1/12, 2/9</td>
</tr>
<tr>
<td>Adv. Paradox</td>
<td>1/25, 2/17</td>
</tr>
<tr>
<td>Intro to dBASE IV</td>
<td>2/16</td>
</tr>
<tr>
<td>Intermed. dBASE III+</td>
<td>1/20</td>
</tr>
<tr>
<td>Intro to Lotus</td>
<td>1/4, 2/1</td>
</tr>
<tr>
<td>Lotus for Windows</td>
<td>12/15, 2/9</td>
</tr>
<tr>
<td>IMPACT System for Personnel Staff</td>
<td>12/1</td>
</tr>
<tr>
<td>IMPACT System for MSCs</td>
<td>12/4</td>
</tr>
<tr>
<td>IMPACT System for Admin Staff</td>
<td>12/16 a.m.</td>
</tr>
<tr>
<td>IMPACT System for Professional Staff</td>
<td>12/16 p.m.</td>
</tr>
<tr>
<td>SUPER INQUIRY for IMPACT System</td>
<td>2/25</td>
</tr>
<tr>
<td>Intro to CRISP</td>
<td>12/11, 2/5</td>
</tr>
<tr>
<td>Adv. CRISP</td>
<td>12/11</td>
</tr>
</tbody>
</table>

STEP Offers Courses for NIH’ers

The Staff Training in Extramural Programs (STEP) committee, which provides training opportunities to the NIH extramural community, invites employees to submit an application (Form NIH-2245) before Dec. 11 for these courses:

- Module 4, "The NIH Maze: Your Fit in the Puzzle" on Apr. 14 continues STEP's commitment to meet the needs of extramural staff in grades 10 and below. Persons in technical, secretarial, clerical, program support and related extramural positions in those grades are encouraged to apply. Senior NIH staff will provide an overview of NIH extramural functions and history. Personal views of extramural jobs and career opportunities will be explored with time for questions and comments from participants.

- Module 5, "Changing Tomorrow Today: Rise and Shine" will be conducted off-campus on Apr. 28 and 29. The world and NIH are undergoing change. Middle and senior level NIH extramural managers are facing challenges never encountered by their predecessors. How are they doing? What can they do better? How can change be used to their advantage? A professional trainer will explore these and other issues with participants, using case studies and role playing.

A copy of the application form is available in the new STEP catalog, which is available in personnel offices, the STEP office (1/252), and the following locations: 31/1B44; 38A/604; EPN/505F; EPS/638; Federal/800A; Gateway/2N212; Solar/3A12; Westwood/648; and NIEHS/303A. For more information call 496-1493.

Dr. Jeffrey Kopp of NIDR's Laboratory of Developmental Biology was honored for the second straight year by the American Federation for Clinical Research (AFCR) with the Henry Christian Award for Excellence in Research. He was recognized for an abstract on skin disorders in HIV-transgenic mice that he submitted for the federation's national meeting. Kopp graduated magna cum laude from Harvard University with a bachelor's degree, and then earned an M.D. from the University of Pennsylvania. After completing his internship and residency at the University of Washington in Seattle, he served as chief resident at the university's Pacific Medical Center. He also completed a nephrology fellowship at the university. He joined NIDR in 1987. The Henry Christian Award for Excellence was established to honor the AFCR founder. It was presented to Kopp at the federation's national meeting held earlier this year in Baltimore.

**Women's Health Lecture Set**

Dr. John D. Nash, chairperson, department of obstetrics and gynecology, National Naval Medical Center, will present a lecture on women's health, sponsored by NIDR's Equal Employment Opportunity Office.

Titled, "Beyond the Pap Smear: What Constitutes a Thorough Pelvic Exam, the lecture will be held on Monday, Nov. 30, from noon to 1:30 p.m. in Wilson Hall, Bldg. 1. Nash will address several issues, including the signs and symptoms of cervical, ovarian and colorectal cancer; age at which women should begin to have cancer-screening procedures; and what to do if your physician does not provide a thorough exam. There will be ample time for questions from the audience. All NIH employees are welcome.

Training Center Begins 1993 with Executive Speakers Seminars

In an effort to keep NIH executives and scientific personnel abreast of new trends in human resources management, the Division of Personnel Management Training Center will initiate the Executive Speakers Series Seminars in January 1993.

The seminars are the result of a leadership development committee chaired by Stephen Benowitz, DPM director, and the NIH Training Center, OD, and will enhance executive development initiatives.

The Training Center, with input from the leadership committee, conducted a survey of the administrative and scientific community. According to Cassandra Isom, assistant director for development and training, DPM, "The results revealed an overwhelming request for basic supervisory and managerial training in a 1- or 2-hour format." She also said that data from the survey will be used as a guide for developing an annual calendar of executive seminars for 1993.

For more information, contact Dr. James C. Moore, 496-2497.

Jasper L. Cummings (I) accepts congratulations from Dr. Leamon Lee, director of the Division of Financial Management, on being named a scholastic all-American by the U.S. Achievement Academy. A DEM employee, Cummings recently received his bachelor's degree in business administration magna cum laude from Sojourner-Douglass College in Baltimore.
World AIDS Day Commemoration Planned

NIH is planning activities to mark World AIDS Day on Tuesday, Dec. 1 at 12 noon in Masur Auditorium, Bldg. 10. The World Health Organization has announced that the theme for the observance, marked around the globe, will be “A Community Commitment.”

The NIH event will include a number of speakers representing communities affected by AIDS as well as community organizations working to provide HIV-related services and support to HIV-infected individuals and their families. This World AIDS Day event is sponsored by the NIH Office of AIDS Research.

In addition, NIH has organized a special exhibit of artwork about AIDS created by children participating in the NCI intramural pediatric AIDS program. This artwork, as well as essays and poems written by the children, will be on display on the first floor of the Clinical Center from Nov. 30 through Dec. 4.

World AIDS Day was first observed in 1988. It provides a forum for reflection on the status and impact of the AIDS pandemic, the efforts to meet the challenges of HIV/AIDS, and future directions in addressing the pandemic around the world.

NIH To Study Agrochemicals

NIH has recently established an Environmental Health Sciences Center of Excellence at the University of California at Davis. Under the directorship of Dr. Fumio Matsumura, it will investigate problems caused by untoward mental Health Sciences Center of Excellence at NIEHS To Study Agrochemicals

Situated in one of the most productive and diversified agricultural areas in the United States, the UC Davis Center will conduct research to investigate the human health effects of pesticides, either used or produced in agriculture; the natural toxins such as mycotoxins and aflatoxins; fertilizers; food and feed additives; growth regulators; herbicides; antibiotics and other drugs; fuels and exhausts; products of agricultural burning and incineration; animal, microbial, and plant wastes; soil amendments; heavy metals and production of air pollutants.

Said NIH director Dr. Kenneth Olden, “Research programs on agricultural chemicals are critical to answering health concerns of the American public. Results of these studies will contribute significantly towards mitigating or solving practical problems not only for the State of California but for the country as a whole.”

The university will receive over $440,000 in funding this year and is scheduled to receive more than $3.5 million over 5 years.

Blood Bank Offers Greetings, Calls for Holiday Donations

The holiday season is a difficult time of year to keep the blood supply at sufficient levels for Clinical Center patients. These patients would appreciate a sincere effort on the part of NIH’ers to donate a unit of blood. To make an appointment to donate, call 496-1048. The NIH Blood Donor Center is located in Bldg. 10, Rm. 1N416. Its hours are Monday, Wednesday, Thursday and Friday, 7:30 a.m. to 3:30 p.m.; Tuesday, 7:30 a.m. to 12:30 p.m.

Master Plans Contract Let

NIH has awarded a $2 million contract to Oudens & Knoop Architects to develop two new master plans for the main campus in Bethesda and for the NIH Animal Center in Poolesville. Also under consideration will be the feasibility of an NIH satellite campus at a third location.

“The Clinical Center Complex replacement on the Bethesda campus will be the cornerstone for reshaping the NIH headquarters location into the next century,” said NIH director Dr. Bernadine Healy. “The major utility systems within the original Clinical Center, which provide critical electrical power, lighting, air conditioning, ventilation, and plumbing, are outdated, beyond their design life, and do not have the capacity to meet increasing research/patient care demands.”

The new master plan for the Bethesda campus is especially important because of several major projects: the William H. Natcher Bldg., the Site Infrastructure Modernization and Improvement Program, and the Clinical Center Modernization and Improvement Program. This planning will provide the framework for facilities development for the next 20 years and will be a vital element in seeking new construction approval from the National Capital Planning Commission.

The new master plans are expected to be completed by late 1993. They will replace the 1972 Bethesda master plan and the 1969 Poolesville master plan.

Herpes Study Needs Recruits

Healthy persons ages 18 to 55 are needed for a year-long NIAID study to test a genital herpes vaccine. Volunteers who do not have genital herpes are needed. Pay is available. For more information call 496-1836.