BIG Highlights Awareness

African American Health Issues Explored at Forum
By Carla Garnett

Zora Brown was 31 years old when she found the lump in her breast. She found the lump in her breast, not that it was diagnosed as cancer. She had been expecting the news, really, given her family's medical history. Brown's mother—now 81 years old—had found a malignant lump in her breast in her fifties. Brown's sister had the same unhappy news at age 27 and Brown's grandmother had lived to age 94 after treatment for breast cancer. In Brown's family, breast cancer is somewhat common. Brown's grandmother was 81 years old—had found a malignant lump in her breast in her fifties, Brown's sister had the same unhappy news at age 27 and Brown's grandmother had lived to age 94 after treatment for breast cancer. In Brown's family, breast cancer is somewhat common.

Postcards from Posterville

Summer Students Show Off Season's Efforts
By Rich McManus

Some 260 scientific posters jammed the lobby and Visitor Information Center areas of Bldg. 10 on Aug. 5 as many of the 1,000 students participating in the Office of Education's Summer Research Program showed off their brainwork. NIH director Dr. Harold Varmus was among the intramural scientists who browsed the displays, asking questions and encouraging the students.

The atmosphere was kind of Men's-meets-Woodstock as the youngsters, some sporting T-shirts with slogans as "Cognitive Neurosciences World Tour," eyed one another's presentations. Dress was casual, mental acuity was pandemic, and a passion for boredomless achievement was ubiquitous; the few kids who didn't have guests inquiring about their work were either deep into paperback novels or busy with needlework.

"Poster Day is the culmination of 2 months' worth of activities," said Dr. Michael Fordis, OE director, "and a chance for the students to present their work to the NIH community." The 8-10-week program included nine lectures by distinguished NIH scientists in the Summer Seminar Series, informal brown-bag luncheons with senior NIH'ers are invited to attend the program. Call OEO for more information, 6-6301.

NHLBI Workshop Focuses on Minority Hypertension
By Louise Williams

America's minority populations are diverse and changing rapidly, both biologically and culturally. Many are also widely dispersed across the country. All of those factors pose problems for epidemiologists trying to gather information on the frequency and severity of hypertension and other cardiovascular diseases among minorities. Yet such information is urgently needed to guide and improve prevention and treatment efforts for minorities.

To seek answers to these problems, NHLBI recently brought together leading U.S. and international epidemiologists for an intensive 2-day "Workshop on the Epidemiology of Hypertension in Hispanic Americans, Native Americans, and Asian/Pacific Islander Americans." Held in Washington, D.C., the workshop had nearly 30 presentations as well as two major panel discussions that recommended future research and prevention efforts. The presentations covered topics ranging from the epidemiology of hypertension in various populations to the problems faced by epidemiologists trying to identify and assess the myriad factors affecting the prevalence of high blood pressure in those groups.

Perhaps the biggest research challenge discussed during the workshop was the diversity of each "minority." Repeatedly, presenters and workshop participants noted small and large differences in culture and heritage that influence a group's health status and complicate efforts to measure the magnitude of any problems.

Dr. Amelie G. Ramirez of the University of Texas in San Antonio illustrated the problem in her overview of hypertension among Hispanic Americans.

"The implied common ancestry for Hispanic Americans is only partly true," she said. In 1990, the more than 22 million Hispanic Americans traced ancestries to a host of countries including Mexico, Puerto Rico, Cuba, Spain, and nations in Central and South America.

"The best generalization about Hispanics," she stressed, "is that no generalizations can be made." She also underscored another problem besetting epidemiologists conducting research on minorities: the lack of vital data. For instance, a notation of Hispanic origin has been made on

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death certificates only since 1989. Thus, Ramires said, Hispanic American mortality data is almost nonexistent.

Similar gaps exist for Native Americans. Nationwide data on the prevalence of hypertension has never been gathered for Native Americans. Yet, hypertension is one of the leading causes of outpatient visits to Indian Health Service (IHS) facilities. Regional data—collected by IHS facilities—show huge variations in Native American hypertension rates. According to Dr. Kelly Acton of the IHS Diabetes Program in St. Ignatius, Mont., the rates vary from 44.9/1,000 persons in a California IHS area to 115.8/1,000 persons in the Bemidji IHS area (that covers parts of Wisconsin, Minnesota, and Michigan).

Heart disease data also are lacking for Native Americans—yet over the past 20 years, it has become their leading cause of death, said Dr. Everett Rhoades of the University of Oklahoma in Oklahoma City and former IHS director. "In the 1960's, researchers wondered what protective factors Indians had against heart disease. Now we see that Native Americans are catching up to the rest of the country," observed Dr. Christopher Percy of the IHS Health Promotion and Disease Prevention Program in Shiprock, N. Mex.

Diversity also challenges epidemiologists studying Asian Americans, a group that has more than doubled in numbers in the past decade—compared with an 8 percent increase in Native Americans and a 53 percent increase in Hispanic Americans, according to Dr. Elena Yu of San Diego State University, who presented a population overview of Asian and Pacific Islander Americans.

Asians, she noted, include Americans of Chinese, Philippine, Japanese, Cambodian, and Vietnamese ancestry, as well as of some Middle Eastern countries. She added that researchers must recognize "the populations' diversity, even that of subgroups."

That diversity affects not only how researchers try to pinpoint health problems but also how they attempt to implement treatment and prevention efforts.

"But if you tell people from mainland China to eat more fruits, they think you mean vegetables. Since they eat a lot of those, they won't add the fruits."

The workshop also tackled the difficult task of trying to tease apart the interplay of factors affecting hypertension's prevalence in minority groups. Those factors include physiological and socio-cultural influences such as heredity, body weight and fat distribution, diet, physical activity, education level, income, and degree of acculturation or modernization.

For instance, a study of Chicago schoolchildren ages 6 to 9 indicated that factors other than body size may influence blood pressure in youngsters. Using data gathered by the Chicago department of health in the late 1970's, Dr. Kiang Liu of Northwestern University compared Japanese, Taiwanese, and Chinese American children to Black, Hispanic, and white youngsters. Black and Asian youngsters had slightly higher blood pressures but Asian girls and boys were significantly shorter and weighed less than the other children.

In the San Luis Valley in southern Colorado, Dr. Marian Rewers of the University of Colorado found that central obesity may be a key influence on the incidence of hypertension among some Hispanics. Hispanics and non-Hispanics have similar total cholesterol levels but Hispanic men have higher triglyceride levels. "We're short on fruits in our diet," she said. "That's one of the things we are recommending to encourage changes."

Although Hispanic whites had similar rates of hypertension but Hispanics, though leaner, had more central obesity and two to four times more non-insulin dependent diabetes mellitus (NIDDM) than the whites.

Many populations studied showed a strong link between diabetes and the incidence of hypertension. For example, most of the hypertension in Native Americans in the Strong Heart Study occurred in those with NIDDM. The Strong Heart Study is an NHLBI-supported investigation of cardiovascular disease rates and risk factors in 13 Native American communities in Arizona, Oklahoma, and North and South Dakota. According to data presented by Dr. Barbara Howard of the Medlantic Research Institute in Washington, D.C., diabetes had a bigger influence on hypertension than age among those in the study.

But in virtually every population discussed, the prevalence of hypertension increased with advancing age. The exception was a group of Alaska Eskimos where older persons had less hypertension than younger generations, who ate fewer traditional foods and rode snowmobiles instead of walking, according to Dr. Sven O.E. Ebbesson of the University of Alaska at Fairbanks. He compared native Alaskans to Siberian Eskimos, who had retained traditional mores and had a third the hyperten­sion and a tenth the diabetes of their American counterparts and no obesity. The powerful effect of socio-cultural factors was also demonstrated by data from the Stanford Five-City Study. Dr. Marilyn Winkleby of Stanford University found no significant ethnic differences in the prevalence of hypertension between Hispanics and Anglos when matched for gender, age, and education. However, those with the lowest education had the highest prevalence of hypertension. The workshop ended with the panels' recommendations for needed community strategies and future research. Recommended approaches for community studies include: Close collaboration and data sharing between investigators and community groups; gearing research to traditional views and local influences on hypertension; training and working with minority researchers and health care professionals; and intensifying prevention efforts for the young.

Recommendations for future research include: collecting information on more socio-economic and cultural traits; conducting and regularly updating national and other surveys of minorities; standardizing methods of data collection such as blood pressure measurements; pursuing genetic epidemiological research; examining hypertension by subgroups, including the investigation of its molecular causes and of groups' normal physiology; improving ways to measure such factors as acculturation, which vary by minority and subgroup; developing a cost-effective measurement of visceral fat; undertaking more multidisciplinary studies and demonstration projects; comparing U.S. minority groups with genetically similar populations in other countries; and conducting baseline studies of minority subgroups.

Workshop organizers are preparing a summary of the workshop for publication. They also are readying two other publications: Extended abstracts of the presentations, which are expected to appear in Public Health Reports in early 1995; and a databook showing the prevalence, treatment, and control of hypertension that utilizes summary data prepared by the workshop participants.
The Record

Gehron Robey To Lead NIDR Bone Research

Dr. Pamela Gehron Robey has been named chief of NIDR’s Bone Research Branch (BRB). She is a biochemist known for her work on connective tissues.

"I am truly honored to be named chief of BRB, a laboratory with a long-standing history of excellence," said Gehron Robey. "I look forward to continuing the unique work that makes this branch a leader in its field."

BRB is devoted to research on the development and structure of bones, teeth and cartilage. It is the only mineralized tissue research branch at NIH, and one of fewer than a dozen in the United States.

Scientists in the branch have made great strides in understanding the formation and structure of healthy and diseased teeth and bone. BRB studies on the molecular structure of bone led to the discovery of the major noncollagenous bone proteins and the cloning of many of their genes. Among other advances was the development by Gehron Robey of a procedure to isolate and study human osteoblasts—bone-forming cells—in culture. This finding aided researchers in the U.S. and around the world in making major breakthroughs in the bone and mineral field.

Gehron Robey received a bachelor’s degree in biology from Susquehanna University and then studied at Catholic University, where she earned a master’s degree in biochemistry and a doctorate in cell biology.

As a graduate student, she worked in NIDR’s Laboratory of Developmental Biology and Anomalies. While there, she discovered laminin, a protein found throughout the body in structures called basement membranes. Her work led to discoveries on laminin’s role in normal physiology and in disease processes such as cancer metastasis.

She served as a postdoctoral fellow in NIDDR’s Genetics and Biochemistry Branch and as a staff fellow in NEI’s Clinical Branch after receiving her Ph.D. She joined NIDR in 1983 as a senior staff fellow and in 1987 was awarded tenure at NIH. In 1992, she was named chief of the skeletal biology section within BRB.

Gehron Robey has received several awards for her work. Most recently the American Society for Bone and Mineral Research honored her with the Fuller Albright Award for her “meritorious scientific accomplishments in the bone and mineral field.” She also has been appointed to the science advisory board of the National Osteoporosis Foundation.

OSIA Welcomes New Members

The Order Sons of Italy in America (OSIA) NIH Lodge No. 2547 held a welcoming reception for its new members after a recent recruitment drive. Thirty-four people attended the event.

The dinner social was filled with camaraderie, introductions, renewals of old acquaintance, all with a background of Italian music. Lodge President Nina Baccanari welcomed the group and offered brief remarks. A raffle of an Italian cookbook was held and the winner was Dr. Kirt Vener.

All members are invited to attend the regular meetings of the lodge, held at 5:30 p.m. on the second Tuesday of each month in the 4th floor Conf. Rm., Bldg. 12A.

For more information call Cathy Battistone, membership chairperson, 6-2578.

Healthy Volunteers Needed

Healthy children and adults ages 10-37 who are not taller than 5’6” (females) or 5’10” (males)—preferably below average height and above average weight—are required for a study examining the effects of Cushing syndrome (a disorder of increased cortisol production) on bone metabolism and density. All volunteers must not be on any long-term medications including the contraceptive pill. Financial compensation will be about $200. If interested, call 6-6821, then press 5 for further information.

NEI Seeks Participants for Study

By Bob Kaska

For Morrison Thomas, a 63-year-old African American, his upcoming retirement years will let him spend more time laughing and playing with his nine grandchildren.

But he wonders sometimes whether he will be able to see his grandchildren grow up. Thomas has a family history of potentially blinding age-related eye diseases, including cataract and glaucoma.

“Just never know what’s going to happen,” said Thomas, a retired NIH police officer who now operates a small tailoring business. “My mother and aunt never planned on having glaucoma. But they got it and had to fight to keep their vision.”

Thomas’ family history of eye disease has motivated him to enroll in the age-related eye diseases study (AREDS), a nationwide clinical trial supported by NEI.

Now recruiting patients at NIH, AREDS is the first large study to track over several years the aging process in the eyes of middle-age and older Americans. From this study, scientists hope to learn more about the eye and two of its diseases of aging, cataract, and age-related macular degeneration.

Cataract, a clouding of the eye’s lens, is the leading cause of vision loss among older African Americans. According to a large study, older African Americans are more than twice as likely as older whites to go blind from cataract.

“If we knew that African Americans are more susceptible to a certain kind of cataract, we could focus our research on preventing that form of cataract in future generations,” said Dr. Carl Kupfer, NEI director. “The AREDS will give us this vital information.”

AREDS participants receive a comprehensive eye examination twice annually for 5 years. They are also asked to take daily one of the study’s various combinations of vitamin and mineral supplements. The supplement is provided free of charge to study participants.

“I’ve been in the trial now for about 2 years,” said Thomas. “It gives me the peace of mind that should anything go wrong with my eyes, I can get it diagnosed early and start treatment immediately to get it under control.”

To enroll in the study, participants must be between 60 and 80 years old, not have had previous eye surgery (although cataract surgery is acceptable), have no illnesses or disorders that would make long-term followup unlikely or difficult, and complete a preliminary eye examination conducted by AREDS staff.

For more information about participating in AREDS, contact Sally McCarthy, 6-3469.

Janette Gabriel, formerly an Equal Employment Opportunity (EEO) specialist with the Office of Research Services, has been appointed an EEO officer for NIAMS and the Fogarty International Center. Prior to her government service, she was a private consultant, conducting human resource training for government and other employees. She has a master’s degree in human resource development from Marymount University and a bachelor’s degree in counseling psychology from Virginia State University.
HEALTH FORUM EMPHASIZES AWARENESS, ACCESS

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that history matters when you find you have the life-threatening condition. Only one thing can help you through it: awareness.

The inherent benefits of awareness were echoed by nearly every speaker at the African American Health Issues Forum held on Aug. 3 at the Sheraton Washington Hotel during the 16th annual National Training Conference of Blacks in Government.

Sponsored by BIG's PHS/NIH Coordinating Council, the forum had one goal: African American health professionals educating African Americans. Covering a wide range of topics from traditional African and holistic medicine to sexually transmitted diseases to substance abuse, more than a dozen presenters from NIH and other Public Health Service agencies, as well as the private sector, discussed ways of achieving and maintaining a higher standard of health for Blacks and other minority populations.

Chair and founder in 1989 of a public awareness firm called the Breast Cancer Resource Committee and a member of NCI's advisory board, Brown was introduced by NIH associate director for research on women's health Dr. Vivian Pinn as "the leading African American spokeswoman for breast cancer." Pinn chaired the forum's 5-member panel discussion that explored myriad medical topics comprising "An Agenda for the Health of African American Women."

Blacks and Breast Cancer

During her segment of the discussion, panelist Brown said each woman is her own best health advocate. Knowing her own chances of developing breast cancer were high,

Brown performed regular self examinations, visited her doctor routinely and, once the cancer was identified in 1981, assembled a team of four health professionals—an internist, a gynecologist, an oncologist and a psychiatrist—to help her make informed decisions about her diagnosis, treatment, prognosis and the psychosocial impact cancer would have on the rest of her life.

Her case, she admitted, may seem a little extreme to most women, but it was right for her; she felt that by making such preparations she gained control over the disease instead of allowing it to control her.

"If you use common sense," Brown said, passing on health advice from her mother, "science will eventually catch up."

For members of minority populations, particularly Black women, Brown said, the wait for science to catch up is taking its toll in lives. For example, she said, her organization and others familiar with breast cancer epidemiology in Black women have suggested for years that the disease strikes African American women at significantly younger ages than white women. It is also known, Brown said, that Black women who are diagnosed at the same age and treated with the same therapies, still die more often than their white counterparts. What remains unknown is why. And contrary to common opinion, Brown said, the differences in mortality do not reflect solely the differences in poverty levels and access to medical care among women.

Holding up a copy of an Aug. 3 New York Times article titled "Deadliness of Breast Cancer in Blacks Defies Easy Answers," Brown said only now is science beginning to address the differences in mortality of the disease in African American women. The newspaper article, which examined several currently ongoing clinical studies on incidence and mortality rates as well as the virulence of breast cancer tumors in Black women, offers hope that science is indeed trying to catch up, Brown said.

Meanwhile, she reminded, Black women need to be more aware and informed of the disease, more diligent in visiting physicians and having mammograms, and more aggressive in sharing information with others.

"We do know that you can live after being treated for breast cancer," Brown concluded, "but you've got to get treated. We [as Black women] need to send a separate message—to the scientific community, to Congress and to each other. I tell women: 'Ignore the risk factors. If you are a woman, then you are at risk for breast cancer.'"

Accent on Accessibility

The sense of urgency for more advocacy among Black women was reiterated by former NHLBI physician Dr. Marilyn H. Gaston, now assistant surgeon general and director of PHS's Bureau of Primary Health Care (BPHC). A pediatrician by training and a nationally recognized expert on sickle cell anemia, Gaston presented "African American Women's Health and Health Care Delivery."

"We cannot talk about the health of African American women without also talking about two of the main driving factors in this country that cause actual health outcomes," she said. "One is poverty and the other is lack of access to primary and preventive health care."

"Prevention is key," she continued, "then early diagnosis and early intervention. These are what's going to make a difference for our African American women."

Showing slides produced by BPHC, Gaston told the audience that, though it is important for health care to be affordable, just as important is having access to medical information and care in other ways—geographically and culturally, for examples.

"Every state has pockets of people who have difficulty getting health care," she said, pointing to slides of migrant farm workers, Native American reservation residents and persons living in poor, rural areas. Besides financial, geographic and cultural roadblocks,
Assistant Surgeon General Gaston: The design of the health care system is also important, she said, noting that universal coverage alone will not provide all Americans with adequate medical care. Using data from a BPHC prenatal care study, Gaston showed that in some cases women with no health insurance were better able to receive care than women covered by federally funded Medicaid. Health care professionals should remember the three A's, Gaston said, when designing a health care system—affordable, accessible and acceptable.

Heart Disease Still #1

Accessibility and acceptability were both discussed further by Dr. Irma Mebane-Sims, an epidemiologist with NHLBI’s Division of Health and Vascular Diseases. Showing a videotape that profiled several women whose medical problems highlight the neglect of women in health research, Mebane-Sims presented “Cardiovascular Health Issues for America’s Black Women.”

One profile featured a 36-year-old heart attack victim who was sent home from the hospital twice while experiencing common heart attack symptoms. Because the patient was female, Mebane-Sims explained, and because she was “too young to be having a heart attack,” the woman nearly died for lack of medical attention. Heart disease, Mebane-Sims said, is still the leading cause of death for women in the U.S.

In another profile, a woman diagnosed as HIV-positive faced similar barriers to health care because the virus was thought to affect mainly homosexual males and intravenous drug users.

Providing a face for Gaston’s message about the variety of nonfinancial barriers to health care was yet another profile—this of a Native American woman with multiple sclerosis. The woman described some of the medical advice she received: “You must just be strong,” they told me. ‘I already am strong.’ I told them.”

“What we know about the health of American Indians would probably fill a thimble,” admitted Mebane-Sims, acknowledging that the scientific community has a great deal more to learn about minority health and that recognition of cultural differences must be an essential element in any health care system.

Sex and the Generation Gap

Dr. Eric Moolchan, principal investigator and program director of the D.C. AIDS Education and Training Center at Howard University, suggested employing cultural diversity to reach people, especially young people.

“There is a place for everybody in the healing effort as we address the international ills of our time,” he said. “Culture influences how knowledge is acquired and translated into behavior. The impact of culture is also illustrated in how we identify people, how we bring about positive results.”

A pediatrician, Moolchan presented “Adolescent Sex Culture and Associated Risk for HIV/Sexually Transmitted Diseases.” He said that while issues of distrust may still remain in the minds of an older generation of minorities, health professionals who reach the youngest in a population with health and prevention messages can transform current and future generations of people.

“People who take pride in their families, talk before the Black Women’s Health Agenda panel convened.

Mind-Over-Body Medicine

Dr. Eric Moolchan of the D.C. AIDS Education and Training Center at Howard University discussed adolescent sex culture.
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Investigators, and a series of workshops on such topics as careers in the biomedical sciences (including a half-day devoted to "Strategies for Success," among which are how to balance a demanding scientific career and family life), and the culture of science (in which the importance of choosing a preceptor was discussed).

Recruitment for the program began early last fall on both a local and national scale, and applicants had until February to submit their bids to work here. Each institute, center and division at NIH made final selections. Overall, about 35 percent of those who apply are accepted. One in five of the students is here for a second summer. Students hail from high schools (only around 10 percent of high schoolers who apply make the cut), undergraduate schools (25 percent acceptance rate) and medical schools (50 percent acceptance rate). The youngsters are paid either by NIH, the Howard Hughes Medical Institute, or in one case, by DANAC Corp. Mixed in among the students is a smattering of teachers, who come to sharpen their classroom approaches.

Fresh from a poised encounter with Varmus was Leandrita Flores, a rising junior at Mount St. Mary's College in Los Angeles. A biology/pre-med major, she spent the summer working with Dr. Jonathan Silver in NIAID's Laboratory of Molecular Microbiology.

"We were trying to create a model of gene transfer using retroviral vectors and packaging cell lines," she said.

While her experiments did not yield the hoped-for results, she appeared utterly undeterred by unsuccess. The Santa Fe, N. Mex., native, who was guided to the summer program by a mentor in the Minority Access to Research Careers Program sponsored by NIGMS at her college, intends to get her M.D. and medical school (50 percent acceptance rate). The youngsters are paid either by NIH, the Howard Hughes Medical Institute, or in one case, by DANAC Corp. Mixed in among the students is a smattering of teachers, who come to sharpen their classroom approaches.

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An avenue of posters away stood Santha Bundy-Farah, one of the few teachers admitted to the summer program. Currently on the faculty of Sidwell Friends Middle School in Washington, D.C., where she teaches biology and physical science to fifth, sixth and seventh graders, she spent the summer learning anew the difficulties facing the kids she tries to teach about science.

"I've been working on growing plasmids, and trying to get pure DNA," she said. "It has really made me sensitive to the difficulties my students face. I think it's good for teachers to go back to being students for a while. It changes your perspective on learning. I'm really enjoying it."

Around the corner was Stacey Moore, who stood sentry-like at a poster featuring her summer's work synthesizing antagonists for adenosine receptors in NIDDK's Laboratory of Bioorganic Chemistry. A rising senior at Texas Southern University in Houston, the Cincinnati native is a chemistry student who intends to get her Ph.D. in that subject. This was a pivotal summer for her, she reported. "I decided to get my doctorate in organic chemistry as a result of my work here," she said, crediting lab chief Dr. John Daly as her mentor. "He helped me a lot, especially with my career goals."

Daly turned her on not just to the excitement of making chemical compounds in the lab, but also to finding out the biological consequences of such compounds in the human body, a study known as pharmacology.

"I've decided to add pharmacology to my studies," said Moore. "I may do postdoctoral work in that field."

The posters didn't necessarily describe completed research, cautioned Jim Alexander, deputy director of OE. Rather, they represented "a benchmark of where the students were in their research. Many of these projects are ongoing."

The 3-hour Poster Day, now in its fourth year as an NIH-wide event, drew scores of visitors, including news reporter Bob Althage of WUSA-TV Channel 9 and his camera crew. As the program drew to a close, OE's Debbie Cohen divulged that parking on campus was the students' biggest gripe of the summer. She added another beef: "A lot of the students say [8-10 weeks] is too short of a time period."
Dr. Michael Fordis (second from l), director of NIH's Office of Education, meets with several students displaying posters. They are (from l) Stacy Marcus, who will be a junior at Duke University; Rona Livnat, a rising sophomore at Washington University in St. Louis; Eric Liu, a rising junior at Harvard University; and Kevin Yeh, a rising junior at Brown University.

Fred Evans, principal at Gaithersburg High School, poses proudly with prize student Natasha Ezerski in front of her poster. Ezerski, one of the few high schoolers admitted to OE's Summer Program, is one of four current or past students at Gaithersburg High to work at NIH this summer.

Interns at the poster session included (from l) Mona Shah; Elizabeth Gallelli (whose father, Dr. Joseph Gallelli, is with the Clinical Center's pharmacy department) of Towson State University; and Natasha Ezerski, who just finished Gaithersburg High School and will attend the University of Maryland-Baltimore County in the fall. Gallelli and Ezerski were in the Laboratory of Chemical Biology, NIDDK.

One of the benefits of Poster Day is that students get to exchange scientific information among themselves. A major goal of the program is to teach youngsters the art of presenting research results to peers and colleagues.

Robert Goree (r) of Hampton University spent his summer in NIDDK's Laboratory of Medicinal Chemistry with Dr. Wayne Bowen. He worked with Dotti Thomasson (c) in the lab, and here meets co-intern Wendy Chi, a Palo Alto, Calif., native now at Wellesley College.

Patrick C. Hines of Hampton University explains his summer research to Parul Thakkar. He was one of several interns in the laboratory of NIDDK's Dr. John Daly.
New data from studies in chimpanzees show that development of a protective vaccine using an inactivated or weakened form of whole HIV-1, the virus that causes AIDS, may be possible, according to scientists from NIH and three other institutions.

The scientists knew that unlike humans, chimpanzees infected with HIV-1 fail to develop disease. So they exposed two HIV-infected chimpanzees to multiple high doses of a different HIV-1 strain and found that they resisted infection with the second virus.

"The initial infection simulated the effect of a successful attenuated HIV-1 vaccine," says Dr. Riri Shibata, lead author of the study. "It induced protective immunity against a subsequent HIV-1 infection. Scientists now have a model system that can be used to help develop an attenuated HIV-1 vaccine for humans." A Fogarty visiting associate with NIAID, Shibata presented the study data Aug. 9 at the Tenth International Conference on AIDS in Yokohama, Japan.

Shibata works as a microbiologist in NIAID's Laboratory of Molecular Microbiology, headed by Dr. Malcolm A. Martin, senior author on the study. Other investigators from NIAID, NCI, Duke University, M.D. Anderson Cancer Hospital and the Coulston Foundation collaborated on the study.

For their study, the researchers took two chimpanzees that had been infected with the laboratory-grown HIV-1-IIIB strain and tried to superinfect them with HIV-1-DH-12, a strain recently isolated from an AIDS patient and known to grow well in chimpanzee cells.

In September 1993, the scientists injected one of the animals with a dose of DH-12 known to induce infection in a chimpanzee. In the ensuing 4 1/2 months, they used a technique called polymerase chain reaction (PCR), which can detect minute amounts of virus, to determine if the DH-12 virus successfully infected the chimpanzee. Repeated PCR tests consistently found evidence of IIIB but not DH-12, suggesting that the animal was protected from the DH-12 challenge.

In January, the investigators gave the first chimpanzee a second DH-12 dose 10 times larger than the first. In addition, they gave the same larger dose of DH-12 to the second IIIB-infected chimpanzee. Multiple PCR tests in both animals over the next 4 months were positive for IIIB but always negative for DH-12.

In May 1994, the researchers exposed the first chimpanzee to a third dose of DH-12 100 times larger than the first. They also took 10 milliliters (about two teaspoonsful) of blood from a chimpanzee that had been experimentally infected with DH-12 and injected it into the second IIIB-infected chimpanzee. To date, both IIIB-infected chimpanzees show no evidence of DH-12 infection by either PCR or virus isolation techniques, Shibata reports.

Prior to the study, the scientists could detect neutralizing antibody against the IIIB but not the DH-12 strain in both animals. Multiple blood samples taken from the chimpanzees throughout the experiment continued to show no evidence of neutralizing antibodies directed against DH-12. Martin notes that protection from superinfection with DH-12 was achieved in the absence of DH-12 neutralizing antibodies, suggesting that cell-mediated immunity was responsible for the protection observed.

This finding will be investigated further to delineate what component(s) of the immune system is (are) responsible for resistance to infection.

When they began the study, the animals had been infected with HIV-IIIB for 3 and 6 years, respectively. In future experiments, the research team will try to determine the minimum time required for chimpanzees to develop protection against a subsequent HIV-1 infection.—Laurie K. Doepel

HIV Burden Unchecked by Antiretroviral Therapy in Early Stages

Antiretroviral therapy has no detectable effect on the amount of HIV, the virus that causes AIDS, in lymphoid tissue or in certain white blood cells of patients with early HIV disease, according to preliminary results from a study by NIAID investigators at the Tenth International Conference on AIDS in Yokohama, Japan. The study is the largest one to date examining the effect of therapy on HIV in lymph nodes, the main reservoir for the virus in infected individuals.

The study findings also show that antiretroviral therapy during early HIV disease does not affect HIV replication in such cells. However, a combination of zidovudine (AZT) and didanosine (ddI) appeared to decrease viral replication in patients with more advanced HIV disease.

"While the combination of the antiretroviral drugs AZT and ddi can prompt a temporary decrease in HIV replication in the lymphoid tissue of infected individuals, the therapy does not appear to affect viral burden," says Dr. Anthony S. Fauci, NIAID director and coauthor of the study conducted at the institute's Laboratory of Immunoregulation (LIR). "These findings point to our need to continue investigating other promising candidate therapies."

For the study, investigators enrolled 32 HIV-infected patients into four study arms:

- No prior therapy and none initiated;
- No prior therapy and AZT begun;
- Prior AZT therapy that was continued or added;
- Prior AZT therapy that was continued with ddi added.

Patients receiving AZT and ddi had more advanced HIV disease than those beginning AZT therapy, notes Dr. Oren J. Cohen, lead author of the study and LIR clinical associate.

The scientists collected samples of blood and lymphoid tissue when patients entered the study and again after 8 weeks. Using the laboratory techniques DNA and RNA polymerase chain reaction (PCR), the investigators measured HIV replication and frequency of virus, known as viral burden, in the tissue and in certain mononuclear white blood cells that circulate in the body. The researchers also examined the viral distribution and tissue architecture.

"HIV burden remained largely unchanged in the patients," explains Cohen. "In four of the six patients who added ddi to their AZT therapy, HIV replication in the lymphoid tissue decreased, and in five of the six, the amount of virus present in plasma declined."

None of the patients had significant changes in their CD4+ T cell counts. Participants not receiving AZT had no change (664 to 658 cells/mm³). Also, there was no change in patients remaining on AZT (413 to 408 cells/mm³). Patients beginning AZT therapy had an increase as did those individuals adding ddi to their AZT therapy. However, these increases are not statistically significant.

None of the patients in the trial had changes in the cellular structure of their lymphoid tissue between biopsies.—Marion E. Glick

Chimpanzee Vaccine Model Protects Against HIV-1 Infection, NIAID Reports

The NIH Training Center and DCRT announce a new course, "Eudora for Macintosh 2.0," which will be offered for the first time on Sept. 13. The offering is for NIH Macintosh users of Eudora, a popular electronic mail program. DCRT provides a free central server and software for Eudora, which requires only a LAN connection and a Macintosh with TCP/IP installed.

The course, which will be held from 9 a.m. to 4 p.m. in Bldg. 31, Rm. B3C02A, is designed to teach those new to electronic mail how to use Eudora, including addressing messages, finding users' addresses and sending mail and mail attachments to other mail systems.

The cost of the course is $135. For more information about this or future classes, contact the NIH Training Center, 6-6211. For more information about Eudora, call DCRT on 4-DCRT.}

'Eudora' E-mail Explained

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**Police profile**

(This is the first in a series of profiles of NIH Police officers who are here to protect the NIH community.)

Officer Lawrence Brown, Jr., has been with the NIH Police Branch for 13 months. He was recently given the assignment as joint community police officer for Bldgs. 10 and 31. Currently resident in Prince George's County and was raised in the Washington, D.C., area. He attended Suitland High School, where he participated in track and field, football and wrestling. After graduating from high school in 1986, he then attended the National Business School for Law Enforcement, where he graduated in the top 5 percent of his class.

Still too young to pursue a career in law enforcement, Brown then enlisted in the Marine Corps for 4 years. While serving with the Marines, he visited Japan, Korea, Thailand, Spain, and the Philippines. Brown also served in the Gulf War, where he was stationed on the U.S.S. Iwo Jima. While he was aboard, a boiler room exploded killing 11 U.S. Navy men.

In April 1992, he was honorably discharged from the Marine Corps and began his career with the federal government. Before coming to the NIH Police Branch, he worked for the Naval Research Laboratory, Washington, D.C., in the Division of Security.

**AAALAC Accredits NIEHS**

The animal facilities at NIEHS have been awarded full accreditation by the American Association for Accreditation of Laboratory Animal Care. The institute's animal care and use program "...judged to be very sound in all respects," has been fully accredited since 1972.

Organized in 1965, AAALAC provides a voluntary peer review program for accreditation of animal care facilities and programs.

The AAALAC mission is to promote high standards for the care, use, and well being of animals used in research, teaching and testing and to enhance research and education through the accreditation process.

The process of obtaining AAALAC accreditation includes an initial program review and a rigorous site visit conducted by members of the AAALAC council on accreditation.

**Two NICHD Grantees Honored**

Professors Ryuzo Yanagimachi and R. Michael Roberts, NICHD grantees, were recently honored by the Society for the Study of Fertility, a distinguished British national scientific society.

Yanagimachi, on the faculty of the University of Hawaii, was awarded the Marshall Medal, the society's highest honor. He is an internationally renowned scientist who has made significant contributions to our knowledge of fertilization.

Roberts, an NICHD MERIT awardee, was selected as the Amoroso Lecturer. He is one of the pioneers who found that the hormone secreted by the early conceptus of ruminants belongs to the family of interferon-tau, and that this hormone is essential for establishment of pregnancy by modulating ovarian function.

Roberts is with the University of Missouri, Columbia.

**Preschool Receives Accreditation**

The NIH Preschool has been accredited by the National Academy of Early Childhood Programs, which recognizes outstanding early childhood programs that meet national standards of quality.

The NIH Preschool has been located in Bldg. 35 for more than 20 years. It provides day care for 65 children, ages 2 1/2 to 5.

The staff and parents take pride in the fact that most teachers have taught at the school from its infancy to the present.

The faculty, along with Director Mary Haas and Assistant Director Joanna Lloyd, brings an eclectic range of teaching strategies and styles that enhance the multicultural school.

To become accredited, the preschool had to meet a variety of criteria including a well-qualified and trained staff, strict health and safety standards, and opportunities for parental involvement.

**Normal Volunteers Needed**

The Epilepsy Research Branch, NINDS, is looking for normal volunteers who are at least age 30 to take simple language tests. Volunteers must be native English speakers and have no more than a high school education. Payment is $20 for 1 hour of testing. For more information call Elizabeth Hoffman, 2-1315.

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Each Additional Member Add: $0-$3.224 $4,588
Abeles To Chair NIH's Health, Behavior Coordinating Committee

Dr. Ronald P. Abeles, associate director for behavioral and social research at NIA, has been appointed chair of the NIH health and behavior coordinating committee (HBCC) by NIH director Dr. Harold Varmus. Abeles' "knowledge and experience in this endeavor will be invaluable when the NIH Office of Behavioral and Social Sciences Research is established," Varmus said. The HBCC is likely to serve as an operating arm of the new office.

A social psychologist, Abeles has served the committee in several capacities over the last 13 years, including executive secretary, acting chair, and vice chair. He replaces Dr. Susan Blumenthal, who left to become PHS deputy assistant secretary of women's health. The HBCC includes representatives from each part of NIH and is charged with: • Making recommendations to the NIH director concerning research needs and future directions; • Serving as liaison between NIH and other governmental, private, professional, and scientific agencies and organizations in the field; • Sharing programmatic and scientific information on health and behavior across NIH; • Providing a forum for considering new program initiatives; • Responding to various requests for information about NIH health and behavioral research activities.

In recent months, the HBCC has been involved in urging more research on the behavioral and social aspects of the new tuberculosis epidemic, has organized a major conference on biobehavioral pain research, has prepared various reports to Congress and the NIH director, and has cosponsored several NIH seminars on women's health. Abeles has been at the forefront of many of these efforts. He has been particularly involved in preparing the institute's reports to Congress, and in 1990 received an NIH Director's Award for these activities.

Carl Banner Named SRA

Dr. Carl Banner has been named scientific review administrator of the neurological sciences-1 study section in the Division of Research Grants. Prior to coming to DRG, he was with NIA as program director, etiology of Alzheimer's disease, neuro-science and neuropsychology of aging. Before joining NIA, he was a senior staff fellow in the Laboratory of Molecular Biology, NINDS.

A native of Washington, D.C., Banner received his bachelor of science degree summa cum laude in 1976 from the University of Maryland and his Ph.D. degree in cellular and developmental biology in 1983 from Harvard University. Prior to joining NIH, he was a senior research scientist with Genex Corp., and a teaching fellow at Harvard University. He has published more than 50 scientific articles, primarily on cellular and developmental biology.

He has received a number of honors and awards including Phi Beta Kappa and Phi Kappa Phi, and was a Yale National Scholar. Banner has also been a concert pianist and won prizes at the National Society of Arts and Letters Competition in Washington D.C., Artist Presentation Society Competition and Young Artists Competition in St. Louis, and the Brewster-Allison National Piano Competition, in Austin, Tex.

He was a founder of the NIH Chamber Players and the Rock Creek Chamber Players, and currently performs with the Pilgrims Chamber Ensemble and the New Millennium Ensemble.

Study Needs Lean Women

Healthy lean or very thin female volunteers ages 18-35 with regular menstrual cycles are needed for a study of the effects of fasting for 72 hours on reproductive hormone function. Volunteers must be on no medications including oral contraceptives, be nonsmokers, be regular menstrual cycles, and be willing to spend 4 days as an inpatient in the NIH Clinical Center. Women in the following categories will be studied: • Sedentary lifestyle, moderate runners (10-25 miles per week) and runners averaging more than 25 miles a week. Volunteers will be paid.

Call Dr. Ruben Alvero, 6-9854.

Students participating in NIGMS' Minority Access to Research Careers (MARC) Program recently gathered in the NIH Visitor Information Center to meet with NIGMS and NIH staff involved in biomedical research and training programs. The students, who come to NIH to do summer research, also had the opportunity to meet one another. Pictured with the students are Dr. Clifton Poodry (first row, far left), director, Minority Opportunities in Research Programs Branch, NIGMS; and Dr. Adolphus Toliver, director, MARC program (first row, second from right).
The Record

August 16, 1994

DRG Retiree Irving Gerring, Here 25 Years, Dies

Irving Gerring, a former health science administrator with the Division of Research Grants, died July 26 of kidney failure. He graduated from the Connecticut Agricultural College, now the University of Connecticut, in 1931, earning a bachelor of science with major studies in bacteriology and chemistry. In 1935, he was awarded a master of science degree in public health from the Delamer Institute of Public Health, Columbia University. In that same year he was appointed chief of the environmental health section in Bridgeport, Conn., the city of his birth. While there he was instrumental in seeing that legislation in the city council allowed only pasteurized milk to be distributed in the city and in passing an ordinance banning all raw milk products.

From 1939 to 1941, he attended the Horace Rackham School of Graduate Studies at the University of Michigan for further study in biology and public health. In 1941, he was appointed associate public health engineer in the Division of Sanitary Engineering of the U.S. Public Health Service. In this capacity he made surveys and recommendations for the development and construction of water supply needs in newly created war production areas.

In 1942, PHS assigned him to a new program known as Malaria Control in War Areas, which was headquartered in Atlanta. His work there was to identify and eliminate mosquitoes that transmit malaria, particularly in those areas surrounding military camps in Louisiana. In 1943, Gerring went to the territory of Alaska for work in health and sanitation activities. He was commended for his work in the inspection of food handling establishments surrounding the large military bases in Anchorage, Fairbanks and Valdez. While in Alaska, he was promoted to the rank of major.

In 1945, he was assigned to the War Assets Administration and in 1947 was appointed as a health science administrator in the newly created Division of Research Grants at NIH. During his 25 years there, he served as a science administrator and executive secretary to several study sections. Among his study section assignments were the environmental sciences, particularly in the water pollution, air pollution and occupational health areas. Other sections in which he served as executive secretary were parasitology; radiology; public health research involving medical care, nursing and epidemiology; biostatistics and biomathematics; nutrition; and population research. He also served as an executive secretary in the U.S.-Japan Medical Cooperative Research Program. He retired in 1977 to his home in Greenbelt, Md.

Gerring is survived by his wife of 51 years, Ethel; sons Arnold of Frederick, Md., Mark of Columbia, Md., and Alan of Greenbelt, Md.; and a sister, Lillian Ribak, of Bridgeport, Conn. He had seven grandchildren and one great-grandchild.

Birth Defect Recurrence Studied by NIEHS

Mothers of babies with a birth defect are at high risk of having another baby with the same defect, says a team of Norwegian and United States researchers. Dr. Allen Wilcox, chief of the Epidemiology Branch, NIEHS, was a coauthor of the study published July 7 in the New England Journal of Medicine.

Some birth defects are already known to run in families, but this study finds that every kind of birth defect tends to recur in families.

“Given what we know about genetic causes of birth defects, this is not so surprising,” says Dr. Rolv Terje Lie, who directed the project.

“What did surprise us was that the risk of repeating the same defect was lower for couples who moved to a different city than those who stayed in the same city. If this is true, it means environmental factors may be more important than we’ve thought.”

The study was carried out in Norway, where nearly 1.5 million births have been recorded in the Medical Birth Registry since 1967.

Researchers used unique ID numbers to link family records, and then calculated birth defect risks for families whose first baby had a defect.

In Norway, birth defects affect about 2.5 percent of all newborns. Defects range from lethal conditions like anencephaly to milder defects that can be treated surgically. Researchers divided these defects into 23 categories and found that for every category, women with one affected baby had a higher risk of the same defect in their next baby. On average, the risk was seven times higher than if their first baby had been unaffected. “The actual percent is still low,” reassures Lie. “Ninety-five percent of women with an affected baby will have a normal baby the next time.”

If women had their second baby with a different partner, their risk of repeating the defect was lower. This supports the idea that genetic factors are at work. However, the risk of repeating the same defect was even lower for mothers who kept their same partner but moved to a different city.

“Past efforts to find environmental causes of birth defects have been frustrating,” says Wilcox. “But these latest results suggest we should not give up the search. Environmental toxins, perhaps among people who are genetically susceptible, may be more important than past studies have been able to show.”

Tube the Shenandoah River

Take a relaxing tube trip down the Shenandoah River in Virginia, and end the day with an all-you-can-eat steak dinner. The trip is on Saturday, Aug. 20, and cost is $30 per person, which includes tube rental and dinner. Visit the R&W activities desk in Bldg. 31 or call 6-4600 to reserve a seat.
Hispanic High School Students Tour NIH

On July 18 and Aug. 1, 125 outstanding young Hispanic scholars from around the country visited the NIH campus and were given an orientation and an overview of the training opportunities available for students. They also attended meetings with Hispanic scientists, who gave the students their perspectives on becoming scientists, and toured NIH research laboratories. These young Hispanic leaders—participants in the National Hispanic Youth Initiative—came to Washington, D.C., while the future of health care of this nation is being decided upon, and they received first-hand knowledge and information on this issue.

The students spent 2 weeks lodged at George Washington University and visited several historical landmarks, museums and health agencies including HRSA, PHS, FDA, and DHHS as well as Congress and the White House. The program is sponsored by the InterAmerican College of Physicians and Surgeons, a national organization representing Hispanic physicians.

The program at NIH began with a stop at the Visitor Information Center, where the scholars were escorted to the Little Theater by Gregory Roa. John Medina III, NIH Hispanic Employment Program manager, welcomed the scholars, gave them an overview of NIH and apprised them of the Office of Equal Opportunity’s Hispanic Employment Program.

Levon Parker, EEO officer and director of NINDS’ Summer Program in the Neurological Sciences, discussed research training opportunities for students supported by NIH. He also recruited current NIH Hispanic summer students to discuss their hands-on research training and experiences.

Hispanic scientists Dr. Victor Hernandez, Dr. Arlyn Garcia-Perez and Dr. Milton Hernandez (who is also chairman of the Hispanic American advisory committee—HAAC), gave the scholars their perspectives on becoming a scientist.

During lunch, Dr. Francisco Calvo, Dr. Richard Martinez, Dina Larach-Robinson (HAAC vice-chair) and Dr. Mary Custer, also a HAAC member, had informal chats with the students. After the luncheon, the scholars joined the scientists and the summer students for a visit to several research laboratories.

Before leaving Washington, the scholars were presented photos of their visit to NIH at a farewell banquet held at the Comissioned Officers’ Club at the Naval Medical Center.