

The NIH Record

Students, Colleagues and Friends

NIH Research Festivities Offer Something for All

By Anne Barber

"A day just for ourselves," said Dr. Joseph E. Rall, NIH's deputy director for intramural research.

"Like a family reunion," said Dr. Philip S. Chen, NIH's associate director for intramural affairs. "It is a great thing for getting together NIH's intramural program. We are interested in bringing together scientists who now do not have much contact."

Rall and Chen are talking about Research Festival. Begun 4 years ago, it was expanded this year to include an extra day of activities. This year there were 5 symposia, 35 workshops and 383 posters displayed during the 2 days of activities—Sept. 10 and 11.

For the first time, a Distinguished Alumni Award was presented. The recipients were Drs. Emil Frei and Emil Freireich, who developed the first successful cure for childhood cancer using chemotherapy.

NCI's director for the Division of Cancer Treatment, Dr. Bruce Chabner, chairman of the symposium honoring Frei and Freireich,



DCRT's Pete Morton (r) explains his poster on Bitnet topology to Dimiter Dimitrov (c) of NCI as Bill Jones (l), another DCRT'er, looks on during Research Festival '90, held Sept. 10-11 all over campus.

said the idea for having a Distinguished Alumni Award yearly belonged to Dr. Abner Notkins and the NIH Alumni Association. Notkins serves as chairman of the organizing committee for the association.

"NCI had the privilege to bestow the first award," said Chabner, "and we chose two of our most distinguished alumni. They were

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Medical Revolution Initiated, Anticipated

First Human Gene Therapy Trial Debuts at NIH

By Carla Garnett

After more than 3 years awaiting federal approval, the first human gene therapy clinical trial got under way last month at the Clinical Center.

"We feel that gene therapy is potentially a major new therapeutic option that should have significant effects in the next century," said Dr. W. French Anderson, chief of NHLBI's Molecular Hematology Branch and one of the trial's three principal investigators.

"We also feel that as important as anything else is to get started," he said.

"The possibility of coming up with a therapy that really can fundamentally help is very exciting," echoed Dr. R. Michael Blaese, chief of the cellular immunology section of NCI's Metabolism Branch and another principal investigator.

"Everything is sort of slow steps," he continued. "I think this is a small step as well but it's a very exciting one."

The treatment, historic in its implications but comparatively simple in its procedure, began mid-day Sept. 14 in the pediatric intensive care unit.

About 2 ounces of the patient's own genetically repaired cells, suspended in saline solution, were reinfused intravenously to the

patient—a 4-year-old girl diagnosed with adenosine deaminase (ADA) deficiency.

ADA deficiency is a rare, genetic disease that severely cripples the immune system, leaving patients vulnerable to serious infections. Fewer than 10 children a year in North America are born with the disease, which often results in death in the first years of life.

The patient was awake and mobile during the treatment, which took about 30 minutes. The therapy is the first of several periodic treatments the patient will have in the next 6 months to a year. Eventually, NIH researchers

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Furlough Update: Seems Likely But of Limited Duration

As the *NIH Record* went to press, the latest news on a possible furlough for NIH employees was that HHS was considering NIH's request to furlough employees 1 day per month (half a day per pay period) and to begin the furloughs during the last week in October.

NIH's plan is to treat all employees equally and to allow ICD directors to make individual

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Parity Among Sexes Sought

New Women's Health Office Announced at NIH

By Carla Garnett

The NIH has created a new office devoted entirely to research on women's health. Named the Office of Research on Women's Health, the new entity will help establish parity among the sexes in biomedical research.

"The Department of Health and Human Services and the NIH recognize the need to include women in clinical studies and to be attentive to women's health concerns," said NIH acting director Dr. William Raub, who announced the creation of the new office at a recent roundtable meeting of DHHS and NIH officials and members of the Congressional Caucus for Women's Issues.

"The NIH will take all the steps necessary to ensure that appropriate numbers of women are included in research projects," he said.

The new office comes to NIH amid criticism from some members of Congress that the institutes have not studied adequate numbers of women in clinical trials.

Criticism stemmed in part from a July 1990 General Accounting Office report that NIH had been slow to implement a policy published originally in the 1986 *NIH Guide to*

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FURLOUGH

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decisions about how and when to furlough specific employees.

According to the minutes of a recent meeting of ICD directors, some 1,600 NIH'ers had responded in writing within a week to a memo announcing the possibility of furlough issued by NIH personnel chief Stephen Benowitz in late August.

While there was still hope in late September that budget conference decisions would make furloughs unnecessary, officials in Bldg. 1 conceded that furloughs seem likely.

Center To Sell Used PHS Uniforms

The service committee of the D.C. metro area branch of the Commissioned Officers Association, Inc., is opening a Uniform Service Center on Wednesday, Oct. 3. This center will sell almost new and used PHS uniforms to commissioned officers. All proceeds from the sale of items are contributed to charitable organizations. If you are interested in donating PHS uniform items to the center, contact Jane McCarthy or Allen Jarrell, 443-4874.

The center will be housed temporarily in the B wing of Bldg. 2721 of the FDA Center for Devices and Radiological Health, 12721 Twinbrook Parkway, Rockville, MD. It will be open on Wednesdays from 11 a.m. to 1 p.m. and the phone number is 443-9704. An answering machine will record your messages when the center is closed.

The Uniform Service Center is looking for volunteers to help staff this activity. Officers should call Constance Burtoff, 496-2292, if interested in volunteering once or twice a year. □

Panel To Discuss Disabilities Act

The Division of Equal Opportunity and the advisory committee for employees with disabilities are sponsoring a panel presentation on Friday, Oct. 12, in Wilson Hall, Bldg. 1, from 1 to 2:30 p.m. The subject of the presentation is "Spotlight on the Americans with Disabilities Act (ADA) of 1990." The purpose of the session is to give NIH personnel an overview of the legislation and provide participants the opportunity to discuss any present and future implications.

The panelists will be: Dr. David Gray, member of advisory committee for employees with disabilities; Erica Jones, legislative liaison, president's committee on employment of people with disabilities; Christopher Bell, executive assistant to the chairman, U.S. Equal Employment Opportunity Commission; and Maureen Miles, NIH contract compliance officer, Division of Contracts and Grants.

All NIH employees with equal employment opportunity, civil rights and contract compliance responsibilities are encouraged to attend. For additional information call Dr. David Gray, 496-1383, or Joan Brogan, 496-2906.

Sign language interpretation will be provided. For reasonable accommodation needs, call the Division of Equal Opportunity, 496-6301. □

Research Volunteers Needed

Earn up to \$378 for participating in a psychopharmacology experiment at USUHS relating to the effects of commonly prescribed drugs. Minimum time required over a 7-week period. Must be between ages 21 and 50, in good health, and not active-duty military. For more information, call 295-0972 weekdays between 9 a.m. and noon. □



Paula Mercer was the first-place winner of the Most Creative Use of Software (Color Division) award in the SAS Graphics Competition at the 15th annual SAS Users Group International Conference in Nashville. SAS is a statistical analysis system used in business and research throughout the world. Mercer is a computer programmer analyst in NIDR's epidemiology program. Her graph was cited for the care and attention given to its conceptualization and the clear and organized way it was presented.



Several dedicated individuals received awards at the R&W annual meeting held recently. Standing are (from l) Patricia Scullion and Mary Yuen, who received awards for their involvement with Camp Fantastic; Jack Welter, David Perry, Mary Zinn and Phyllis McKee of the R&W Theatre Group; Bill Stancliff, for his work for the NIH patient community; Rowena Abern, R&W 1st vice president. Seated are (from l) Genevieve Schiffman, NIH medical scientists committee; Dan Rogers, R&W 3rd vice president; Mary Hodges, R&W recording secretary; Andrew Himelfarb, for his involvement with R&W endeavors.

The NIH Record

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Dr. Jeremy Nathans Presents NIH Lecture

By Joyce Doherty

Color has always been a handy metaphor for expressing an abstraction—seeing red, feeling blue, black humor, green-eyed jealousy—but how we perceive color is still a gray area. For decades we have known that pigments in the human eye play a role in color vision, but until recently, scientists have not understood the makeup of those pigments or how they evolved. A leader in elucidating the nature of these pigments, Dr. Jeremy Nathans, will deliver the annual NIH Lecture on the topic, "Molecular Genetic Studies of Visual Pigments," in Masur Auditorium, Bldg. 10, Oct. 11 at 3 p.m.

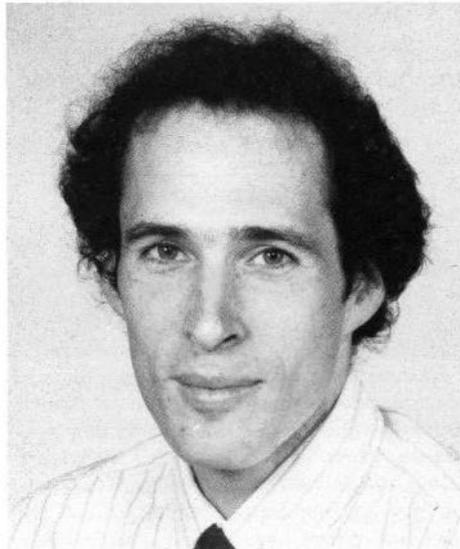
Nathans and his fellow scientists have isolated and characterized the genes for color vision. Their work explains the genetic basis for variations in the degree and type of human color deficiencies, opens the way for direct study of the color vision pigments and provides clues about how color vision evolved and may still be evolving.

About 7 million cone-shaped retinal cells lining the inside of the eye are genetically programmed to produce either a red, green or blue pigment. The pigment makes the cell sensitive only to the wavelength of light producing that color. Another pigment called rhodopsin, which is found in nearby rod cells, enables us to see in dim light in a monochrome of black, white and gray.

Most color deficiency is inherited, and the most common type—red-green deficiency—is almost always found in males who inherit the defective gene from a normal-vision mother who carries the gene on her X chromosome. Unlike females, males have no second X chromosome that could carry a gene to offset the defective gene.

To locate the genes, the researchers used the previously identified gene for bovine rhodopsin as a probe to detect complementary DNA sequences that constitute the gene's chemical structure. This method was predicated on the theory that all color vision genes evolved from a common progenitor gene. They found a family of four genes and, from their chemical makeup and chromosomal locations, deduced their evolutionary ages. The genes for red and green pigments have nearly identical chemical structure and lie head to toe on chromosome X. Their structural similarity and proximity suggest that they evolved together and relatively recently. The genes for blue pigment and rhodopsin each have a distinctive chemical makeup and are found on different chromosomes—7 and 3, respectively—suggesting that they evolved earlier.

Nathans' group further showed that color deficiency can result either from a mutation in the gene or from a loss of a gene due to unequal exchanges of genetic material during



Dr. Jeremy Nathans

meiosis, the process in which certain chromosomes separate into egg and sperm cells. The scientists also found that some people can distinguish all three colors, but, because of abnormal pigments that have uneven spectral sensitivities, they see colors with diminished, or at least different, vibrancies.

What surprised the researchers was the finding that some people with normal vision have one or more extra copies of the green pigment gene. Nathans speculates that shuffling of genetic materials in the extra gene could lead to the evolution of a pigment that would recognize a different wavelength and perhaps provide us with a four-color vision palette. The duplicate genes give evolution some material with which to experiment.

Nathans is now studying which element of the pigment makes it possible for a green cone cell, for example, to react only to the wavelength in the green range of the light spectrum. He is also investigating how genes in one cell specify production of only red pigment while those in a similar cell specify only blue pigment.

Nathans is an assistant professor in the department of molecular biology and genetics at the Johns Hopkins University School of Medicine, and an assistant investigator, Howard Hughes Medical Institute. He received his Ph.D. in biochemistry in 1985 and M.D. in 1987 from Stanford University School of Medicine and has received seven awards in the past 4 years for his scientific achievements. □

Reminder: Dial Area Codes Now for Some Local Calls

As of Oct. 1, NIH'ers in Maryland making calls to our neighbors in nearby Virginia and Washington, D.C., must use the area code, even though the calls are local.

According to the Telecommunications Branch, ORS, the Chesapeake & Potomac phone company has now exhausted the supply of telephone numbers associated with local dialing. Therefore, area codes, preceded by the normal prefix "9" for an outside call, must be used even for metro area calls outside the caller's area code.

When calling a local (no toll) number in the same area code, dial 9 and the 7-digit phone number as you do now. When calling a local (no toll) number in another area code, dial 9, the area code, then the 7-digit number.

Always know the code you are calling from and the one you wish to reach. Maryland's code is 301; D.C. is 202; and most of Virginia is 703.

Toll calls continue to require the prefix "8" before the area code and number. □

Lecture on Women's Surgery

"Gynecological and Obstetrical Surgery: How Much Is Enough?" will be discussed by Dr. Luella Kline, professor of obstetrics and gynecology at Emory University School of Medicine, on Wednesday, Oct. 10, in Conf. Rm. 10, Bldg. 31, from 12:30 to 1:30 p.m.

This seminar, sponsored by the advisory committee on women's health issues, is open to all NIH employees. For further information, contact Dr. Connie Atwell, 496-5301. □



Pictured are (from l) Drs. Alison Wichman, George Chrousos, Eric Ottesen and Jacqueline Whang-Peng, who were panelists at the recent "Case Studies in Bioethics: Cultural Perspectives" discussion sponsored by the cross-cultural health committee and the Clinical Center's educational services office. Conducted by CC bioethics research fellow Dr. Michele Carter, the group discussed the ethical aspects of conducting research involving human subjects in cultures with different value systems.

Study Suggests That Nuclear Plants Pose No Cancer Threat to Neighbors

By Kara Smigel

Results from a 2-year National Cancer Institute county survey show no increased risk of death from cancer for people living in 107 United States counties containing or close to 62 nuclear facilities. Included were 52 commercial nuclear power plants, nine Department of Energy research and weapons plants, and one commercial fuel-reprocessing plant. The facilities in the survey had all begun operation before 1982.

The NCI researchers examined deaths from 16 types of cancer, including leukemia. In the counties with nuclear facilities, cancer death rates before and after the startup of the facilities were compared to cancer rates in 292 similar counties without nuclear facilities (control counties).

The NCI survey showed that, in comparison to the control counties, some of the study counties had higher rates of certain cancers and some had lower rates, either before or after the facilities came into service. None of the differences that were observed could be linked to the presence of nuclear facilities. "From the data at hand, there was no convincing evidence of any increased risk of death from any of the cancers we surveyed due to living near nuclear facilities," said Dr. John Boice, chief of NCI's Radiation Epidemiology Branch.

He cautioned, however, that the size of the counties may be too large to detect risks present only in limited areas around the plants. "No study can prove the absence of an effect," said Boice. "But if any excess cancer risk due to radiation pollution is present in counties with nuclear facilities, the risk is too small to be detected by the methods used."

The survey, conducted by Seymour Jablon, Drs. Zdenek Hrubec, B.J. Stone, and Boice, was started in 1987 for scientific purposes, in response to American public health concerns and after a British survey of cancer mortality in areas around nuclear installations in the United Kingdom showed an excess of childhood leukemia deaths near some facilities. No increases in total cancer mortality were found in the British study, and other smaller surveys of cancer deaths around nuclear facilities from the U.S. and U.K. have yielded conflicting results.

The NCI scientists surveyed more than 900,000 cancer deaths in the study counties using county mortality records collected from 1950 to 1984. The researchers evaluated changes in mortality rates for 16 types of cancer in these counties from 1950 until the facility began operation and from start of operation until 1984. For four facilities in two states (Iowa and Connecticut) cancer incidence

data were also available. Data on cancer incidence in these counties resembled the county's mortality data patterns.

For each of the 107 study counties, three counties that had populations similar in income, education, and other socioeconomic factors, but did not have or were not near nuclear facilities, were chosen for comparison. The study and control counties were within the same geographic region and usually within the same state. More than 1,800,000 cancer deaths were surveyed in the control counties.

Analysis and comparison of the number of cancer deaths in the study and control counties determined the relative risk (RR) of dying from cancer for persons living near a nuclear facility. A relative risk of 1.00 means that the risk of dying from cancer was the same in the study and control counties; any number below 1.00 indicates that the overall risk was lower in the study county than in the control county; and any number greater than 1.00 indicates a higher risk in the study county. For example, an RR of 1.04 would indicate that there was a 4 percent higher risk of cancer death in the study county. Conversely, an RR of 0.93 would indicate a 7 percent lower risk in the study county.

For childhood leukemia in children ages 0 through 9 years, the overall RR comparing study and control counties before the startup of the nuclear facilities was 1.08; after startup the RR was 1.03. These data indicate that the risk of childhood leukemia in the study counties was slightly greater before startup of the nuclear facilities than after. The risk of dying from childhood cancers other than leukemia changed slightly from an RR of 0.94 before the plants began operation to an RR of 0.99 after.

For leukemia at all ages, the RRs were 1.02 before startup and 0.98 after. For other cancer at all ages, the RRs were essentially the same: 1.00 before startup and 1.01 after. These results provide no evidence that the presence of nuclear facilities influenced cancer death rates in the study counties. □

NIA Seeks Volunteers

The Laboratory of Neurosciences, NIA, is seeking healthy volunteers to participate in a study investigating the effects of aging on brain functions. Volunteers must be in excellent health, medication free, and without past or present major health problems. Those above age 60 are particularly needed. For more information call 496-4754, Mon.-Fri., 9 a.m.-5 p.m. □

Exhibit on Public Health History

An exhibit on "Public Health in New York City in the Late 19th Century," commemorating the centennial of the publication of Jacob Riis' *How the Other Half Lives* is now on display in the lobby of the National Library of Medicine, where it will continue until Dec. 28.

Riis' famous descriptions and photographs of life in the New York City slums helped to publicize the conditions under which the urban poor lived, including the serious public health problems that they faced. The exhibit



A New York City Board of Health physician examines a baby in a tenement building; from the cover of Harper's Weekly, Aug. 10, 1889.

features books and pictures from the NLM collection, as well as materials borrowed from the Library of Congress, the Museum of the City of New York, and the private collection of William Helfand.

Single copies of a booklet bearing the same title as the exhibit may be obtained without charge by writing: Chief, History of Medicine, National Library of Medicine, 8600 Rockville Pike, Bethesda, MD 20894 (please include a self-addressed label).

The library is open 8:30 a.m.-9 p.m. Monday-Thursday and 8:30 a.m.-5 p.m. Friday-Saturday. □

Allergic to Cats?

The Laboratory of Allergenic Products, FDA, is seeking volunteers who are allergic to cats, for skin testing. Participants will be compensated for their time. Interested subjects should send a written request to receive a questionnaire to Jackie Matthews, Bldg. 29, Rm. 201 or Bldg. 10, Rm. 11C420. For further information call 496-4862 or 496-9054. □

NIH Celebrates Hispanic Heritage Month

In May 1988, Congress provided for the designation of National Hispanic Heritage Month, and authorized the president to proclaim annually the 31-day period beginning Sept. 15 and ending Oct. 15 as Hispanic Heritage Month. The month is set aside to recognize the achievements of Hispanic Americans and their rich contributions to the heritage of our nation as well as to address issues concerning Hispanics.

This year's program will be held Monday, Oct. 15 from 10:30 a.m. to 1:30 p.m. in Wilson Hall, Bldg. 1, sponsored by the Division of Equal Opportunity, Hispanic Employment Program and its Hispanic American advisory committee. It will feature a keynote address by Dr. B. Roberto Cruz, president of the National Hispanic University, Oakland, Calif.

Cruz received his Ph.D. from the University of California, Berkeley, in policy, planning and administration and has a master's degree in education from the same university; he received his bachelor of arts in education from Wichita State University in Kansas.

Cruz served on Berkeley's graduate admissions committee, school of education; was a lecturer at Stanford University's school of education; was assistant professor at St. Mary's College school of education and was executive director of a nonprofit educational group that addressed the educational needs of language minority students through teacher training, technical assistance and research.

He also served as president of the National Association for Bilingual Education, was appointed by the U.S. Secretary of Education to a national advisory council dealing with the education of language minority students, and



Dr. B. Roberto Cruz

is past-president of the California Association for Bilingual Education. He has worked extensively in the field of education as a teacher, administrator, trainer consultant, and university instructor.

Cruz is an author of research articles relating to the education of language minority students. He has received many awards and honors from educational organizations throughout the nation, including induction into the Hispanic Hall of Fame in 1987, along with our current Secretary of Education Dr. Lauro Cavazos, and the 1984 Education and Community Service Award from the Mexican American Foundation.

In 1981, Cruz was appointed president of the only national Hispanic university in the United States.

To culminate the observance on Oct. 15 there will be a folkloric musical group, a Pan American flags exhibition and Hispanic food sampling from Central, South American and Caribbean cultures. □

Guide to Accessible Facilities At NIH Is Published

Can you tell me where the handicapped parking is for Bldg. 1? Is the entrance to Bldg. 31C accessible? These are the kinds of questions regarding accessible facilities at NIH that are frequently asked by employees, visitors, and patients at the Clinical Center. To help answer these questions, the Division of Equal Opportunity and the Division of Engineering Services have developed a comprehensive *Guide to Accessible Facilities at NIH* that covers the NIH campus; NIH Animal Center in Poolesville; north, south and east campuses at Research Triangle Park, N.C.; Frederick Cancer Research and Development Center; and NIH rental buildings in the Washington metropolitan area.

Throughout the guide, a facility or feature is defined as "accessible" when it meets the definition or description of the Uniform Federal Accessibility Guidelines. The guide consists of a separate page for each building and lists the common features, with a yes/no indicating remarks regarding the accessibility of each feature; a diagram showing the location of the handicapped parking, building entrances, elevators, toilet rooms and corridors; location of public telephones, drinking fountains and cafeterias.

Copies of the guide have been distributed to ICD directors, executive officers, EEO officers, EEO counselors, personnel officers, committee management officers, and information officers. For additional copies and information on the guide, call Joan Brogan, NIH Disability Employment Program manager, 496-2906. □

ECS Offers Video Seminars

The Employee Counseling Services (ECS) is offering a new educational series called "Work, Career, and Personal Growth Issues."

Organized around videotapes dealing with personal/career development issues in the workplace, the first four-segment seminar—"Self-esteem and Peak Performance"—will be offered four Tuesdays in October from noon to 1 p.m. in the Little Theater, Bldg. 10. Segment 1 will be Oct. 9; segment 2, Oct. 16; segment 3, Oct. 23; and segment 4, Oct. 30.

For more information about the series, call ECS, 496-3164. □

FOCC Plans Bake Sale

The Friends of the Clinical Center (FOCC) is planning a bake sale on Thursday, Nov. 15. Proceeds from the sale will benefit FOCC in its continuing effort to provide emergency assistance to NIH patients and their families. To donate baked goods or volunteer to work at the bake sale, contact Andrea Rander, Bldg. 10, Rm. 1C144, 496-1807. □



NHLBI director Dr. Claude Lenfant recently presented certificates of recognition to 16 D.C. elementary school students whose science projects won achievement awards in the city's first annual City-wide Elementary Science Fair. Some of the future scientists are shown here with Lenfant at an NHLBI reception held in their honor. NHLBI staff members Dr. Kathryn Ballard, Eric Brown and Helena Misboe served as judges for the NHLBI special awards.

GENE THERAPY

(Continued from Page 1)

hope patients will be able to receive the gene treatments at their home hospitals.

No outward physical results of the treatment are expected to be evident for several months; however, periodic blood samples from the patient will measure the amount of repaired cells circulating in the patient's body and will give researchers a wide representation of what infections the blood cells have to fight against during a typical year.

"We would hope that we'll begin seeing effects of the gene's modified cells in the first year," said Blaese, who has made his career taking care of children with severe immune disorders.

"I certainly don't expect to tell you next week that this treatment is a roaring success," he cautioned. "It's not designed to give answers within a week. It's designed to help us for a long period of time."

"We really feel a very large burden on our shoulders," Anderson said, answering questions at a news conference held the day before the treatment was scheduled.

One reporter asked him why the investigators decided to infuse so few "corrected gene" cells. Wouldn't more cells have produced a greater impact on the experiment? the journalist wanted to know.

"There have been critics who have said 'Why are you starting so soon?' and why are we going with a child?" Anderson answered. "It is imperative that we not do anything wrong or dumb or have it go badly."

He continued: "Our point of view is, it is more important to start very slowly so that we are ultrasafe than to move quickly ahead and take the chance that something that we did not anticipate would happen."

Put in perspective, the amount of cells reintroduced to the patient does seem small.

About 1 billion human cells—a tiny fraction of the body's total cells—were involved in this first stage of the trial, according to the third principal investigator, Dr. Kenneth Culver, a senior clinical researcher in Blaese's section.

"A drop in the bucket," he said smiling, as Anderson indicated with his thumb and forefinger the pellet-size amount of history being discussed.

Of course, the implications of the trial, much grander and more far-reaching than the tiny pellet of cells would indicate, were not considered lightly by the researchers.

"The technical ability to do gene therapy has been around for several years," Anderson said, addressing the ethical issues posed by critics since gene therapy technology was initiated some 20 years ago.

He explained: "The concern has been that as soon as scientists and physicians, no matter

how dedicated and how conscientious, begin to manipulate the blueprint of our lives—our genes—then that concept is very disturbing."

Even during the news conference, one group of critics was silently making its concerns known.

Press releases from the Foundation on Economic Trends, a Washington, D.C., think-tank, were neatly stacked beside gene therapy fact sheets on a table just outside the Bldg. 31A conference room where trial investigators fielded media questions.

"The NIH has brought us into the Brave New World of human genetic engineering," Jeremy Rifkin, foundation president, said in the release. "We are calling for a complete halt on future human gene therapy experiments until an advisory board on eugenics is established that will fully assess each proposed experiment."

"While there are many potential benefits of somatic gene therapy," Rifkin continued, "the technology has the potential of being misused and abused on a massive scale. The social and ethical impacts of human genetic engineering may be the most profound ever to face humanity. They cannot be ignored by the NIH."

Far from ignoring the ethical impact of the trial, Anderson recounted the numerous tests gene therapy in general, and this trial specifically, have had to pass before arriving at last month's threshold of discovery.

"The review process was set up to give the public confidence that when gene therapy was finally attempted, it would not take place in

some haphazard or random or rushed way," he said. "It was thoroughly reviewed over a long period of time by a large number of committees composed of very conscientious people who were looking for any possible problem."

"The reason it's taken us over 3 years to get approval is that a large number of people have done a very dedicated job," he said.

Anderson also emphasized the importance of animal research to the development of the gene therapy trial.

"Our goal is to devise treatment for incurable human diseases," he said. "Research with animals is critical for the success of that objective."

Anderson said the extensive approval process helped the public understand the importance and safety of the trial.

"I think the American public, from my interactions and from talking with groups, are comfortable and as excited as we are," he continued. "What we hope for is that the procedure goes well and that this child and other children are ultimately helped."

What began last month in the arm of a 4-year-old could ultimately eliminate the world's most serious and devastating disorders, according to Anderson.

"The longer term implication, if this works, is that gene therapy might very well become a major new revolution in medicine," Anderson concluded. "This should provide cures for what are presently incurable diseases." □

NIMH Seeks Female Volunteers

The section on behavioral endocrinology, Biological Psychiatry Branch, NIMH, is seeking female volunteers between the ages of 18 and 45 to participate in studies on premenstrual syndrome.

Volunteers must have regular menstrual cycles with no changes in mood in relationship to menses, be free of medical illnesses and not taking any hormones or medication on a regular basis. Volunteers will complete daily rating forms and are asked to participate in one of several protocols. For further information call 496-9675. □

R&W Offers Bahamas Cruise

Plan now for your spring vacation—a 4-night Bahamas cruise aboard Royal Caribbean Line's new ship, the Nordic Empress. R&W is able to offer a substantial group discount for this vacation; your price as an R&W member is only \$639, a savings of \$156 off the regular fare of \$795. Sailing date is Apr. 29, 1991. A \$25 deposit holds your reservation until November. Stop by the R&W Activities Desk for more information, or call 496-4600. □



Ed Sniadowski, NIH operations manager for Guest Services Inc., the company that manages five cafeterias on NIH's main campus, reads the names of winners in GSI's "Just to Say Thank You" campaign. Begun in July, the monthly campaign has already awarded more than \$500 in cash and prizes to NIH cafeteria dwellers. Register to win this month's drawing by filling out an entry form in any of GSI's campus cafeterias—Bldg. 31, Bldg. 1, Bldg. 35, Bldg. 10 clinic and Bldg. 10 hospital. Prizes include dinner for two at an area restaurant, \$50 cash, a \$50 gift certificate and a week's worth of free GSI cafeteria lunches.

Sculpture Welcomes Visitors to Children's Inn

Between the double glass doors leading into the Children's Inn at NIH, there stands a sculpture of a young girl with her arms around a shaggy dog. "The Welcoming," as the 42-inch bronze statue is called, is indeed that. The sculpture was dedicated to Merck & Co., Inc., for its contribution of \$3.7 million to build the inn and was presented by the Friends of the Children's Inn.

Several congressional wives who are also officials of the Friends of the Children's Inn—Carmala Walgren, president; Debbie Dingell, vice president; and Chris Downey, secretary—commissioned artist Elliott Offner, the Andrew W. Mellon professor in the humanities at Smith College, to craft the sculpture.

Attending the dedication ceremony on Sept. 11 was Walgren, who began the ceremony saying, "This is another happy day at the Children's Inn." Referring to a Biblical admonishment, she said, "It is better to give than to receive. I am truly delighted and pleased to be able to dedicate this sculpture to the Merck Company." And to the artist, she said, "It is clear you took the Children's Inn personally."

Dr. William F. Raub, NIH's acting director, said NIH has more than 16 nations represented in its preschool and infant care centers and expressed amazement at the non-verbal skills that children use to demonstrate how they think and feel. "They are extremely able communicators," he said. "Many children will be able to see it (the sculpture), feel it and sense the welcome it embodies. It is the Children's Inn."

Offner said that for inspiration he used an old photograph of his daughter Emily, taken 20 years ago at age 5, with the family dog George. "The dog was found in the woods by a farmer. Pretty soon, Emily and George were inseparable. The face on the sculpture, however, is the face of my grandchild.

"The sculpture reflects movement that



Participating in the dedication of the new sculpture at the Children's Inn are (from l): Dr. William F. Raub, NIH acting director; Andreano Johnson; Carmala Walgren, president, Friends of the Children's Inn; Robin Hogen Jr., executive vice president of the Merck Co. Foundation; Bennett Han; Jessica Chancellor; artist Elliott Offner; and Christina Han.

exists when two creatures are in relationship to each other," he continued.

C. Robin Hogen Jr., executive vice president of the Merck Company Foundation, accepted the sculpture on behalf of Merck and Dr. P. Roy Vagelos, its chief executive officer and chairman. "We at Merck are very proud of NIH and the Children's Inn. In fact, our last two newsletters to our stockholders and more than 34,000 employees were filled with articles on the inn."

He continued, "I have four kids and two

dogs so I can relate to the sculpture. This will be home to kids less fortunate than mine; this is so appropriate. I feel very privileged to be a part of this building. I am very honored and delighted to receive this special tribute. Thank you very much."

After the dedication ceremony, several children visiting the inn helped Offner uncover the bronze sculpture. They were allowed to touch and get a thorough look at the little girl and her dog. Their reactions were unanimous—they liked it.—Anne Barber □



Giving platelets on opening day of the newly relocated NIH Platelet Center in Bldg. 10 are (from l) Floyd Sandlin, Katherine Dusbel and Ben Fulton. Dusbel and Fulton have been platelet donors since 1974, when the old mobile trailers that used to house the center opened on parking lot 10-D. The new center welcomes all donors—old and new. To schedule an appointment, ask for Virginia on 496-4321.

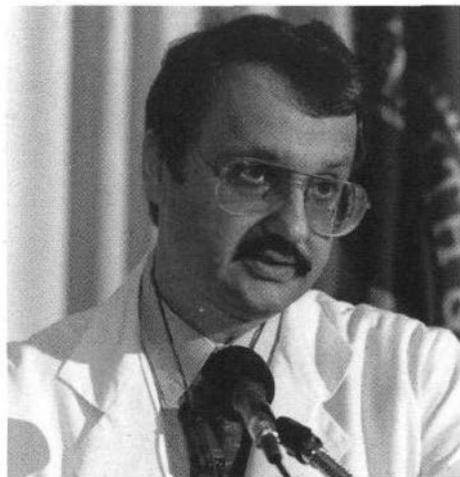
ECS Lecture Series Begins

The theme for the 1990-1991 Employee Counseling Services guest lecture series is "Intersections: Health and Illness in the Workplace."

A combination of lectures, films and small group discussions, the series is centered around work and health issues and the impact of life stressors on the workplace.

The first presentation, "Wellness in the Workplace," will be given by Dodi Ardalan on Thursday, Oct. 18 in Bldg. 31A, Conf. Rm. 4, from noon to 1 p.m. On Oct. 25, the film "Managing Stress" will be shown in the Little Theater, Bldg. 10, from noon to 1 p.m.

For more information, call ECS, 496-3164. □



Dr. Samuel Broder, NCI's director, spoke on "Therapeutic Interventions in HIV Infection," at the AIDS symposium.

RESEARCH

(Continued from Page 1)

here 35 years ago and many of us have profited from their research."

"I was one of the last trainees of these two gentlemen during their last years at NIH in 1960," said former NCI director Dr. Vincent DeVita, now of Memorial Sloan-Kettering. "Cancer was considered a killer and chemotherapy was talked about despairingly because of the side effects.

"The main issue of the sixties was whether or not cancer chemotherapy could cure cancer. These two doctors established the dose response and toxic effects to come up with the combinations used here in the fifties. Their aim was curing leukemia. Their idea was controversial but stimulating."

Continued DeVita, "Their model was childhood leukemia. I remember being quite

stunned when I saw their first remission from chemotherapy. The general reaction was indignant rejection, opposition then cautious adoption.

"Frei taught me not to believe anything I was taught unless I saw the proof," he continued. "There is a quote I leave to all trainees. I don't know who said it but the quote is: 'Do not follow where the paths may lead, go instead where there is no path and leave a trail.'"

Dr. Donnal Thomas of the Fred Hutchinson Cancer Center in Seattle stated that in the 1950's there was no corrective therapy for leukemia. "The first bone marrow paper was published in 1957 and transplantation followed in 1959. Now platelet transfusions have become routine."

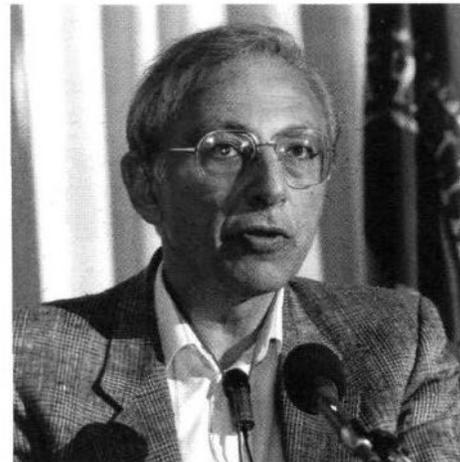
Freireich, presently at the M.D. Anderson Cancer Center, said in his acceptance speech, "I spent 10 years at the Clinical Center and the things we (Frei included) learned there have guided us through the past 25 years.

"We were bold enough to propose a cure. It proved to be rational and I was lucky I got to see this proven during the past 25 years. Normally, the problem in this field is that we don't live long enough to see what the long-term results are.

"Now we have to work with genetics. Cellular genetics is just overpowering and molecular genetics is now exploding. I believe the next 25 years will be more exciting and I hope I'll be here to talk about them," Freireich concluded.

When Frei arrived at the Clinical Center in 1955, his goal was research. "We did new things with the idea that we did not bring patients into the Clinical Center to treat them in routine fashion," he said.

"We had new techniques, we developed novel approaches from basic and clinical sciences. Today, we combine both novel and traditional approaches.



NCI's Dr. Robert Gallo was one of the speakers at the AIDS symposium on Sept. 10, the first day of the Research Festival.

"We need to give the investigator resources and a chance to go with his or her ideas," Frei continued. "We need to have primary goals relating to cancer research and the freedom and resources to reach them. This is what should be done at a place like the National Institutes of Health."

Rall, who gave the opening remarks at the AIDS symposium later the same day, received a photograph of the NIH campus in honor of his 70th birthday being celebrated this year. Dr. John Gallin, chairman of the Research Festival '90 organizing committee and director of NIAID's Division of Intramural Research, presented the framed photograph. "In keeping with the spirit of the festival, we are honoring someone who has been at NIH for more than 35 years and helped us establish this Research Day." The plaque was signed by laboratory chiefs and directors.

Dr. Samuel Broder, director of NCI, emphasized how important it is that NIH have a research festival for the intramural program. "It proves that laboratory research can make a difference and lead to therapies that help keep people alive," he said.

Dr. Robert Gallo, chief of NCI's Laboratory of Tumor Cell Biology and one of the speakers at the AIDS symposium, discussed recent advances in the study of Kaposi's sarcoma.

There were two symposia held on Monday and three on Tuesday; all were filled to capacity with standing and sometimes sitting-on-the-floor room only. The symposium on "Gene Transfer and the Potential for Genetic Therapy" held in Wilson Hall was particularly well attended, with Dr. Arthur Nienhuis, chief of NHLBI's Clinical Hematology Branch, serving as chairman.

Dr. David Dichek of NHLBI's Molecular Hematology Branch had prepared one of the slides used in his presentation with his own



Enjoying the scientific humor poster are (from l) John De Leonardis, NHLBI; Marion Andrew, visiting from Australia; Arthur Zetts, NHLBI; Albert Baukal, NICHD; and Dr. Prince K. Avora of NIDDK, who prepared the exhibit.

hands. He joked that when he went to get the professional artists to do the slide, they had been placed on furlough.

NCI's Dr. R. Michael Blaese spoke on gene therapy for ADA deficiency, and Dr. Steven A. Rosenberg, chief of NCI's Surgery Branch, discussed gene therapy in the treatment of cancer. Dr. W. French Anderson, chief of NHLBI's Molecular Hematology Branch, spoke on the present and future use of gene therapy. Two of these physicians, Blaese and Anderson, 3 days later led the team that made history by performing the first gene therapy on a 4-year-old girl with an immune system defect.

Attending several symposia was Dr. C. Michael Fordis, director of NIH's Office of Education, who said, "The scope of the research demonstrates that at NIH we have a successful marriage between basic science and application in clinical medicine."

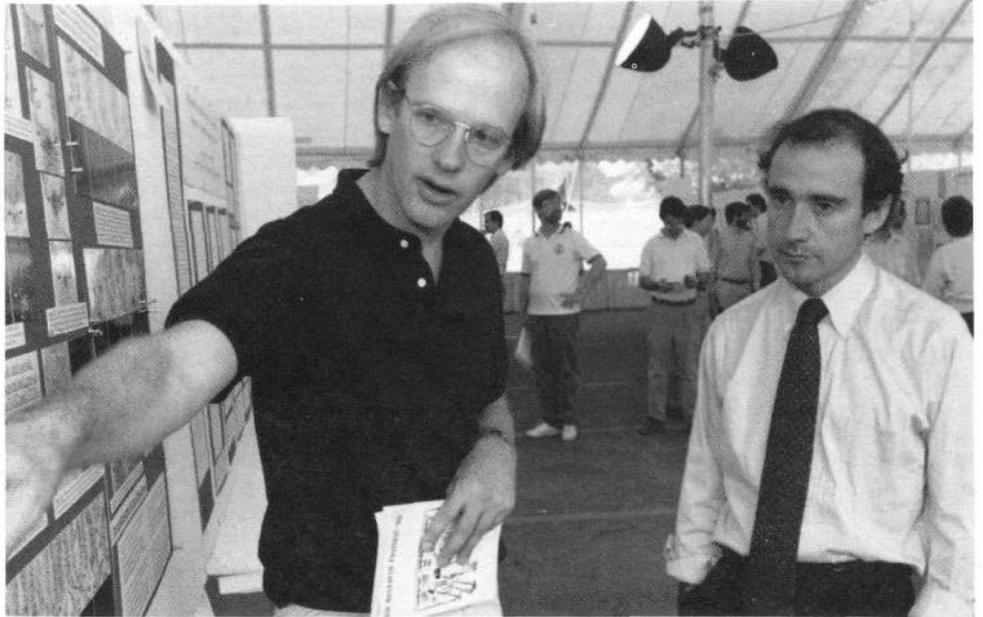
The poster session was held in two tents with more than 380 posters displayed during the 2 days of activities. New exhibits were displayed daily with the exception of one poster that drew such a large audience that it was returned by popular demand. Titled, "Scientific Humor and the NIH Scientist," it was presented by Dr. Prince Arora of NIDDK's Laboratory of Neuroscience.

Arora studies how stress affects the immune system, so he thought his humorous poster would relieve some stress. "I just wanted to make them laugh," he said. Arora also presented a poster titled, "Opiate-induced inhibition of calcium flux in immune cells."

"There are just so many things to see and go to," said Bldg. 1's Chen, who paused at Arora's poster. "The festival offers an excess of good things to do."

Agreeing with that were crowds of young scientists trying to attend as many of the symposia and poster sessions as they could.

Dr. Yuan Jiangang, Laboratory of Chemical Biology, NIDDK, was one of those. A visiting associate from China who has been at NIH



Dr. William P. Hayes (l) of NICHD explains his poster titled, "Correlated onset of POMC mRNA expression inside and outside the brain: Evidence for embryonic brain-pituitary interactions" to Dr. James L. Olds, NINDS.

for 3 years, Jiangang said he had been to the AIDS symposium. While there was not a lot of new territory covered in it, he thought Research Festival was great.

Andrea Cooper, a Fogarty fellow from England who has worked in NIAID's Laboratory of Parasitic Diseases for the past year, said going to the workshops was good. "It is nice to get in touch with other people, have a look around and see what everybody is doing."

Dr. K. Shimoda, a visiting scientist from Japan, has been working for NIMH's Laboratory of Biochemical Genetics at St. Elizabeths Hospital for 3 years and has presented a poster for the past 2. He said, "My interest is very limited so I am delighted to talk to anyone who is interested in my field. To find out there are a lot of collaborators out there is a very good thing. Very exciting. This is a big opportunity to discuss my work with top scientists."

Dr. Paul Levine of NCI's Environmental Epidemiology Branch was there with his poster, "The American Adult T-cell Leukemia/Lymphoma Registry (ATLR): Recent Observations." It was his first time exhibiting at the poster session. "It has been very worthwhile. I have been asked very provocative questions that I now have to find out the answers to," he said.

"Very interesting," said Dr. Antonella Farsetti, a Fogarty visiting fellow from Rome, about the poster session. Farsetti has been working in NIDDK's Clinical Endocrinology Branch for a year and plans to stay for one more. "I just follow what I'm interested in—thyroid hormone effect. It is always good to

(Continued on Page 10)



DCRT's Marylyn Westervelt (r) explains her poster on computer systems to Wojciech Grzesiek of NIDR.

Photos: Ernie Branson



Steven Gearing (r) explains DCRT's electronic Bulletin Board System to NIA's Dave Purdon at a Research Festival poster session.



Dr. John Gallin (l), chairman of this year's Research Festival, presented a photograph of NIH's campus to Dr. Joseph E. Rall in honor of Rall's 70th birthday. Rall serves as NIH's deputy director for intramural research.

(Continued from Page 9)

know what others are doing so that a door is not closed to you," she continued.

Dr. Reuben Siraganian of NIDR's Laboratory of Immunology has been at NIH for 17 years and says, "Research day, since it started, has been a very good addition to the NIH community."

Harriet Greenwald, editor of the NIH Alumni Association's newsletter *NIHAA Update*, manned a booth both days. She reported that people were interested and that NIHAA had picked up some new members. "This is a good opportunity for us to let people at NIH know it (NIHAA) is not just for past employees but for current employees as well. We now have 1,300 members throughout the United States, with 450 of those members from the metropolitan area—including Baltimore, Washington, D.C., and Bethesda.

NIHAA will sponsor the Distinguished Alumni Award annually at Research Festival with the institutes rotating the sponsorship. Next year the National Heart, Lung, and Blood Institute will honor its distinguished alumni. □

CC Gallery Listings

Through Nov. 20 includes:
Gallery I

Nancy Reinke — prints
Gallery II

Eric Mohn — paintings
Gallery III

Gelicia Belair-Rigdon — collage □

Three Named to NIGMS National Advisory Council

Three new members have been named to the National Advisory General Medical Sciences Council. They are Drs. Susan B. Foote, of the University of California, Berkeley, William B. DeLauder, of Delaware State College, and Wilma K. Olson, of Rutgers University.

Foote, a native of California, is presently an associate professor in the school of business administration at Berkeley. Holder of a J.D. from that university's Boalt Hall School of Law, her primary interest is in the areas of medical technology and public policy. She has also been a consumer representative on Food and Drug Administration advisory panels for many years.

DeLauder, a chemist, received his Ph.D. from Wayne State University in Detroit. A

native of Maryland, he was a professor in and chairman of the department of chemistry at North Carolina A&T University from 1976 to 1981. For the next 6 years, he served as dean of the university's college of arts and sciences. Presently, he is president of Delaware State College, where he is actively involved in efforts to increase the number of minority students in the biomedical sciences.

Olson is a professor in the department of chemistry at Rutgers University, where she has been a faculty member since 1972. A native of Philadelphia, Olson earned her Ph.D. at Stanford University. She has also served as a visiting professor at the Universitat Basel in Switzerland and Jilin University in the People's Republic of China. □

Navy's Bowling Center Is Open

The Edward L. Clauss Memorial Bowling Center, located directly across the street from NIH on the Bethesda Naval Base, is open to all NIH employees and their guests. The bowling center has 20 tenpin lanes, a full service snack bar with beer on tap, a bowling pro shop and game room with four pool tables. It is not too late to consider joining a fall bowling league to get in on all the fun.

The hours of operation for the center are: Sun.-Mon. 12 noon-10 p.m.; Tues.-Thurs. 4-11 p.m.; Fri. 4 p.m.-midnight; Sat. 12 noon-midnight.

For more information call 295-2034. □

R&W Offers Atlantic City Trip

We're off again to the exciting world of the big rollers. This time R&W is embarking for the Claridge Casino on Atlantic City's boardwalk. Please join us as we travel by deluxe motorcoach to the casino on Friday, Oct. 19. For \$25 you will receive round trip transportation, \$5 in coin, \$3 in food coupons, and \$5 deferred. We will leave 31C at 7 a.m. and return about 9 p.m. Reservations can be made at any R&W location. Better sign up early—these trips are popular. For more information, call the R&W activities desk, 496-4600. □

Fire Prevention Week To Be Observed at NIH, Oct. 8-12



Jane Healy of the CC nursing department learns how to use a fire extinguisher from Lt. Randy Poole of the fire and emergency response section, Emergency Management Branch. Classes are offered upon request. To sign up call 496-2372.

The great Chicago fire, which occurred on Oct. 9, 1871, inspired the National Fire Protection Association (NFPA) to create Fire Prevention Week. In that tragic fire, more than 250 people lost their lives and over 17,000 buildings were destroyed. In 1922, NFPA members urged President Warren G. Harding to proclaim Fire Prevention Week—to be nationally recognized every October.

To commemorate Fire Prevention Week here at NIH, two fire safety presentations have been planned. All concerned individuals are invited to attend.

Wednesday, Oct. 10
1:30-3:30 p.m. — Bldg. 13, 2nd Fl., Conf. Rms. B and C.

The Division of Safety will be showing four award-winning fire safety educational films produced by the NFPA:

- Fire: Countdown to Disaster
- Fire Safety in Health Care Facilities
- Fire Extinguishers: Fight or Flight
- Fire Power

Learn about the lethal effects of smoke that precede the flames. Learn how to spot and eliminate fire hazards and how to protect yourself against hazards involved with fire extinguisher use. See what a big difference sprinkler systems can make in the speed of fire suppression.

Space is limited for this presentation. Contact the fire prevention section, Emergency Management Branch, 496-0487 to reserve a seat.

Thursday, Oct. 11
1:30-3:30 p.m. — Lipsett Amphitheater, Bldg. 10

The Division of Engineering Services is hosting a presentation regarding the installation of automatic sprinkler and fire alarm systems throughout Bldg. 10. Due to the sensitivity, importance and impact of this project on the building, the presence of all users and administrative officers is highly encouraged.

Hispanic Workers Assist

Hispanic High School Students Tour NIH with Expert Guides

More than 80 junior and senior Hispanic high school students from around the country visited NIH recently as part of a 2-day program sponsored by the Interamerican College of Physicians and Surgeons.

The students spent 7 days bivouaced at George Washington University and visited several historical landmarks, museums and health agencies, including Walter Reed Army Medical Center, Parklawn Bldg., Congress and the White House.

The program at NIH began with a stop at the Visitor Information Center (VIC), where students viewed the NIH slide show and gathered publications and pamphlets. Dr. Manuel Torres, chair of the NIH Hispanic American advisory committee, oriented the students to NIH's structure and answered many questions.

Tom Flavin, NIH special projects officer, explained the research nature of the institutes and related high points in medical history made here.

During the second day, Victor Canino, NIH Hispanic Program manager, welcomed the scholars and stressed the importance of continuing their education, including applying for NIH internships.

Helping out both days was Levon Parker, EEO officer and director of NINDS' Summer Program in the Neurosciences. He discussed research training opportunities and recruited some current program members to talk about their summer work here.

Many members of NIH's Hispanic community pitched in to help the students. Alfred Salas, NINDS personnel officer, talked about training and employment opportunities at NIH. Dr. Ciriaco Gonzalez, director of the Minority Biomedical Research Support Program Branch, NIGMS, emphasized the need for Hispanics in biomedical research.

At a picnic lunch held for the high schoolers, Dr. Henry Stevenson, an NCI senior scientist, talked about national Hispanic health issues; his mother had been a resident advisor for the kids during their week here.

Several Hispanic employees from various occupations on campus joined each table and had informal chats with the students. Sergio Bauza, a nurse on 9 East, talked about his education in Puerto Rico. Gloria Newcomb, a CC social worker, offered tours of the hospital. NEI researcher Dr. Ana Chepelinsky walked her students to Bldg. 6 to meet her colleagues and observe experiments taking place in her lab, which does research on DNA sequencing.

Levon Parker's four summer students took a large group of guests to Nobel laureate Dr. Carleton Gajdusek's area in Bldg. 37 to see the Laboratory of Central Nervous System



Gonzalo Graupera (l), a third-year student at Johns Hopkins and a second-year student-scientist with NINDS, has his students mesmerized by his pipetting method. Graupera also received an exceptional summer student award this past summer.

Studies in action.

Other NIH'ers who pitched in to make the visit worthwhile included Drs. Janet Cuca and Muriel Kaiser-Kupfer of NEI, who introduced their colleagues Drs. Rafael Caruso and Manuel Datiles; Nellie Villacreses, a biologist with NIA; Priscilla Rivera, nurse on 7D; Juan Rivera, NIAMS biologist; Dr. Gabriella Marin of NICHD and Juanita Villabalos, an NIAID biologist.

The last stop on the tour was NLM, where

Bob Mehnert, information officer, and his assistant Roger Gilkeson offered glimpses of the library's treasures.

Before leaving Washington, the students, visiting under the auspices of the National Hispanic Youth Initiative in Health and Policy Development, received photos of their visit to NIH and the best wishes of those who had helped orient them to the research life.—Susan Gerhold



Gabriela Tobal (l), a Hispanic summer student from the University of Santa Cruz, has worked with senior research scientist Dr. Ana B. Chepelinsky for the past two summers on DNA sequencing in the Laboratory of Molecular and Developmental Biology, NEI.



Research biologist Dr. Ralph Garruto (r) spends a few minutes with a student who shows interest in his NINDS research efforts.

Photos: Ernie Branson
Judi Bolander

WOMEN

(Continued from Page 1)

Grants and Contracts. The policy, suggested by the NIH advisory committee on women's health issues, informed grant applicants of the need to include women in clinical trials.

Raub announced plans for several measures that will immediately address the concerns of Congress and GAO.

One measure has already been implemented: The *NIH Guide to Grants and Contracts* now includes a revised announcement to would-be grantees that numbers of women in clinical trials should be proportionate to numbers of women with the condition under study.

Raub said NIH's new efforts toward women's health will include enhanced research activities by all institutes and will be intramural as well as extramural.

Raub's announcement warns grantees: Have "compelling justification" for excluding women from the study, or forfeit the NIH grant.

"Failure to provide gender information about proposed studies will result in deferral of the application," he said.

In addition, required training sessions have been scheduled on seven different occasions to

"The NIH will take all the steps necessary to ensure that appropriate numbers of women are included in research projects."

—NIH acting director Dr. William Raub

inform NIH personnel who handle grants of these new policies.

Rep. Patricia Schroeder (D-Colo.), cochair of the Congressional Caucus for Women's Issues, applauded the new NIH actions.

"I think we're going to find in the future that it will be much easier to keep track of and see what kind of progress we're making," she said. "I think it shows the dedication of NIH and how well they were listening."

Schroeder recently advocated an increase in national obstetric and gynecological research.

"Women are more complex (than men) and therefore the studies, according to GAO, become all the more important," she said.

"You can have women who are pregnant and nonpregnant. You can have women pre-, post- or menopausal. All those states could require different types of treatment."

According to Sen. Barbara Mikulski, who introduced the Women's Health Equity Act in Congress Aug. 2, women have been short-changed long enough.

"When one looks at medical practice, the facts are frightening," she said. "Women's health needs have either been ignored or our life processes—like birth and menopause—are often treated like diseases rather than natural



Dr. Ruth L. Kirschstein

processes to be studied, helped and assisted. Often our life processes are minimized or trivialized."

Schroeder said primary caregivers for women need the results of gender-specific research to direct them.

"(Without it), they are really flying blind," she said. "And that's been happening a lot as we look at the research."

One often-cited example of medical research results that differ among men and women is the 1981 NHLBI study of 22,000 male physicians.

That study found that men reduced their incidence of heart attacks by taking an aspirin every other day. Because the study involved no women, the preventive aspirin strategy may or may not be applicable to females.

"It's all a very well-kept secret that the number one killer of women in America happens to be heart disease," Schroeder said. "Sometimes I think there's been a myth out there that we're all healthy. But when you look at the statistics, we're not."

Raub said the majority of NIH's research is not gender-specific, but equally relevant to both sexes.

"The bulk of our clinical research is and should be applicable to both genders as is the fundamental basic science that makes those clinical research opportunities possible," he said.

NIGMS director Dr. Ruth L. Kirschstein echoed Raub's sentiments, citing an NCI colon cancer study that included women in numbers appropriate to the disease's prevalence in females.

"Unfortunately, colon cancer kills more women annually than all gynecological cancers combined," she said.

Kirschstein, who has been named acting associate director for research on women's health and will lead the new office on women's health until a permanent director is found, is cochair of the PHS coordinating committee on women's health issues.

"One goal of the Office of Research on Women's Health is to determine what

research, intramurally and extramurally, may relate specifically to diagnosis, treatment and prevention of diseases in women," she said.

"The office will maintain an ongoing dialogue with the scientific community and with women's health advocates and will communicate their concerns to the director of NIH and to the directors of the various institutes, centers and divisions."

The new office will develop a trans-NIH plan to keep track of NIH-funded research on all diseases and conditions that affect women, she said.

Rep. Connie Morella (R-Md.), who represents Montgomery County in the House of Representatives, and this year sponsored the Women and AIDS Outreach and Prevention Act, called for a special effort to increase the number of women in AIDS studies.

Representation of women in clinical AIDS studies critically trails representation of men, she said.

"We know that the federal response to the AIDS epidemic has been appropriate in terms of men—appropriate for the decade of the nineties—but the response to the epidemic in women lags about 10 years behind," she said.

"Statistically it's rather frightening that women now comprise the fastest growing group of people with AIDS," Morella continued.

In New York City, AIDS has become the leading cause of death for women ages 20 to 40, she said.

"So often women have been looked at as transmitters of the disease to men and to children without being looked at as entities unto themselves," she said.

Mikulski summed up the concerns of the caucus: "We want to be sure that research is translated into action, prevention, outreach, public education—not only of consumers but also of physicians who deliver service.

"This isn't a one shot deal," she continued. "This is a commitment to be sure that, when we go into the 21st century, we go in practicing 21st century medicine, but not with 14th century attitudes." □

AMA Salutes Kirschstein

NIGMS director Dr. Ruth L. Kirschstein is the recipient of the 1990 Dr. Nathan Davis Award from the American Medical Association; she won in the category of member of the executive branch in career public service. She was cited in recognition of her distinguished 34-year federal career as a researcher, manager and executive.

The awards, named after the AMA's founder, were inaugurated in 1989 to salute outstanding government leaders who have "dedicated their expertise and understanding in support of public health." Kirschstein has been director of NIGMS since 1974.

Dr. David Rall, NIEHS and NTP Director, Retires

Dr. David P. Rall, director of the National Institute of Environmental Health Sciences since 1971, and also director of the National Toxicology Program since 1978, retired on Oct. 1.

His retirement marks the end of an era during which NIEHS grew from a handful of employees housed in leased space with an annual budget of \$24 million, to a world center for toxicological research with 1,000 employees and an annual budget of more than \$230 million.

Prior to his NIEHS appointment, Rall was associate scientific director for experimental therapeutics at the National Cancer Institute.

Under Rall's leadership, scientists at NIEHS laboratories as well as at college and university laboratories supported by institute grants and contracts have made major advances in understanding the toxicity of scores of hazardous substances, including the cellular and molecular mechanisms by which environmental contaminants cause illness. Rall was among those to initiate early studies on the hazards of halogenated aromatic hydrocarbons, a family of chemicals including PBB's, PCB's, dioxin and dibenzofurans. Under his leadership, major advances were made in the study of asbestos, vinyl chloride, diethylstilbestrol (DES), cadmium, mercury and lead, among many other examples. Rall was also instrumental in initiating and supporting landmark studies in the causes and health effects of air pollution.

The National Toxicology Program under his leadership has expanded its series of published technical reports to cover more than 300 chemicals. These studies cover a wide range of toxicities among which are carcinogenicity, mutagenicity, teratogenicity, as well as effects on the reproductive, immune and cardiovascular systems. Slides and wet tissue specimens from most of these studies comprise the NTP archives, one of the largest such toxicological repositories in the world and an invaluable resource for future toxicological studies.

Among Rall's many accomplishments as director was the planning, funding, and construction of the new NIEHS facilities in Research Triangle Park, N.C. These state-of-the-art laboratories have been identified as among the most advanced toxicological research facilities in the world. The facilities, occupied in 1981, have served as the site of scores of international conferences on a wide range of environmental health subjects. The NIEHS today performs or funds approximately one-third of all environmental health science studies in the world and is the only federal agency with the mission to conduct and support basic biomedical and human health research in the environmental health sciences.

Rall, an assistant surgeon general in the



Dr. David P. Rall

Public Health Service, has been widely honored for his leadership role in the environmental health sciences during the past 20 years. He was recently one of 23 international science and policy leaders to be named to the World Health Organization's commission on health and environment. He is a 1989 recipient of the Ramazzini Award presented by the Collegium Ramazzini, from the town of Carpi, Italy, in memory of Bernardino Ramazzini (1633-1714), an early pioneer in environmental sciences.

Rall was honored in 1989 by the Institute of Occupational Health in Helsinki, an agency of the Finnish government, with its Distinguished Service Medal, and has twice been honored by the PHS with its Distinguished Service Medal. In 1988, the WHO awarded Rall the "Health for All 2000" medal for his outstanding scientific accomplishments.

Rall is a member of the Institute of Medicine of the National Academy of Sciences and is a recipient of the Arnold J. Lehman Award from the Society of Toxicology, as well as the alumni merit award from Northwestern University, where he received both the M.D. and Ph.D. degrees. Rall is a native of Aurora, Ill., and did his undergraduate work at North Central College, Naperville, Ill.

Rall and his wife Gloria plan to reside in Washington, D.C., where they have recently bought a new home. Rall was a longtime resident of Chapel Hill, N.C., but spent many years commuting between NIEHS and the NIH campus in Bethesda. In his work with WHO and in other ways, Rall is expected to remain active in his leadership role in environmental health sciences.

While a search committee helps select Rall's successor, Dr. David G. Hoel, director of the NIEHS Division of Biometry and Risk Assessment, will serve as acting NIEHS director.

Dr. William F. Raub, acting NIH director, said, "I congratulate Dr. Rall on his long and successful service as director of the National Institute of Environmental Health Sciences. His dedication to environmental health research and his perspective on the many emerging health issues of our times has gained him recognition within both the national and international scientific communities. His pioneering spirit, steadfast resolve and concern for human health will be long remembered."

A longtime employee and senior scientist at NIEHS, Dr. James R. Fouts, commented on Rall's retirement: "Dr. Rall has set very high standards in scientific research, with a steadfast vision of the role of basic research in environmental health decisions. Dr. Rall has kept an open mind on emerging issues without being overly distracted by the many extremes of opposing thought. His place as a pioneer in the environmental health sciences is well established."—Thomas Hawkins □

'Inside the Cell' Revised

You can take a guided tour through the spectacular miniature world of the human cell in the National Institute of General Medical Sciences' newly revised brochure, *Inside the Cell*. This illustrated, 62-page booklet takes you from the cell's "command center" to its marvelous outer "skin"—the membrane—and explains how a cell goes about its various jobs of making proteins, communicating with other cells, and making copies of itself. Find out what biologists have learned about healthy (and diseased) cells, as well as what remains mysterious. Single, free copies of *Inside the Cell* are available from the NIGMS Office of Research Reports, Bldg. 31, Rm. 4A52, 496-7301. □

Five Join NINDS Council

Five new members have been named to the National Advisory Neurological Disorders and Stroke Council.

Appointed to 4-year terms are: Dr. Arthur K. Asbury, professor, department of neurology, University of Pennsylvania School of Medicine; Morton Gorn, founder and president of Gorn Properties, Inc., and the Gorn Management Co., Inc., Baltimore; Dr. Leslie H. Hicks, professor and chairman of the department of psychology, Howard University; Dr. Anne G. Osborn, director of neuroradiology, University of Utah School of Medicine; and Dr. Charles F. Stevens, professor, laboratory of molecular neurobiology, the Salk Institute for Biological Sciences, La Jolla, Calif. □

Facility for X-Ray Studies Dedicated at Cornell University

By Michael Fluharty

Officials from Cornell University and the National Center for Research Resources gathered recently in Ithaca, N.Y., to formally open the world's only biological isolation facility in which crystals of hazardous viruses such as hepatitis and poliomyelitis can be subjected to intense x-ray beams to determine their structure. Such structural determination, using beams a million times more intense than a medical chest x-ray, is a key to developing vaccines and antiviral drugs.

The new "BL-3" biocontainment facility, a self-contained laboratory for preparing viruses and other biological materials for exposure to strong x-ray beams, is funded by an approximately \$5 million grant from NCRR's Biomedical Research Technology Program. The x-ray beam comes from the NSF-funded Cornell High Energy Synchrotron Source (CHESS), of which the NIH-funded Mac-CHESS program at Cornell is a part. The facility uses synchrotron radiation to study biological structures.

In addition to the BL-3 facility, four other new lead-lined experimental stations—small rooms in which beams are focused and directed at targets—were added to existing stations through a grant from NSF. Because of the newly added facilities, hundreds more scientists are able to perform x-ray probes of biological and other materials.

"This construction makes CHESS one of the country's most active centers for synchrotron studies," said Dr. Boris Batterman, director of CHESS at Cornell. Batterman noted that the addition of the BL-3 isolation facility "will allow some of the most exciting new work in x-ray crystallography of biological materials."

CHESS is particularly suited for virus studies because its intense, ultrafast pulses can provide enough information to yield the structure of a virus before delicate virus crystals are destroyed by radiation, according to Batterman.

Synchrotron radiation is electromagnetic radiation spewed out by beams of high-energy electrons and positrons as they are bent by powerful magnets into a circular path in particle accelerators. Such radiation, from visible light to high-energy x-rays, is emitted in the forward direction of travel, like the headlight of a locomotive sweeping around a curve. By adding windowed ports in the side of an accelerator chamber, scientists can use the beam to analyze materials.

CHESS x-rays are produced in a one-half mile underground ring in which counter-rotating beams of electrons and positrons are collided at energies of about 5 billion electron volts. The collisions yield subatomic particles whose properties can then be studied.



Dr. Boris Batterman (r), director of CHESS at Cornell University, explains some of the intricate synchrotron radiation hardware to Dr. Robert A. Whitney, Jr. (l), director of NCRR, and Peter Bruns, director of the Division of Biological Sciences at Cornell. The NCRR-funded resource is used for obtaining crystal structures of viruses and proteins.

Because electrons and positrons circle the ring in tight bunches about the size of sewing needles, synchrotron radiation is produced in short bursts of about one ten-billionth of a second, spaced several hundred-billionths of a second apart.

Two of the newly added CHESS stations are served by a beam line that contains a beam-intensifying device called a wiggler. The wiggler consists of 24 permanent magnets that oscillate the electron beam back and forth, intensifying the synchrotron x-rays at least

24-fold. The wiggler will produce x-ray beams with energies up to 100,000 volts.

In addition to the formal dedication ceremonies, a symposium was held on applying high-energy x-ray beams to the study of viruses and biological molecules. Making presentations about how synchrotron radiation had benefitted their work were Drs. Michael Rossman from Purdue University, Stephen Harrison from Harvard University, and Keith Moffat from Cornell. □

NIDR's Robert Bunch Retires

Robert L. Bunch, a supply technician and property manager at the National Institute of Dental Research, retired recently after 36 years of government service, the last 27 of them with NIDR.

Bunch began working at NIH in 1953, and since then has held a variety of jobs ordering and cataloguing supplies and equipment. Most recently, he worked in the Office of the Director, NIDR, keeping track of all equipment in the institute and also assuming some procurement responsibilities. Before joining the Office of the Director, he served as a grants technician in NIDR's extramural program. Prior to his career at NIH, Bunch majored in sociology at Morgan State College, where he played on the football team.

At a retirement party in his honor, Bunch received a variety of gifts—most of them relating to fishing, which he hopes to spend more time doing.



Robert L. Bunch holds up one of his many retirement gifts at a party held recently in his honor.

But his retirement won't be devoted solely to relaxation. Bunch plans to expand his interest in sports into a second career by opening a sporting goods shop. □



TRAINING TIPS

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

Courses and Programs *Starting Dates*

Management and Supervisory 496-6371

Managing Stress, Maximizing Effectiveness	11/2
Voice for Success	10/29
Creative Basics for Changing Workplaces	10/29
Working With Personnel Differences MBTI I	11/6
Practical Management Approaches	11/7
Interpersonal Relationships in the Work Environment	11/27
Positive Influence and Negotiation	11/28

Personnel Management Training and Special Courses 496-6211

Qualification Analysis	10/10
Break the Smoking Habit	10/12

Office Operations Training 496-6211

Personal Computer Training 496-6211

Introduction to Wordperfect 5.1	10/16, 10/29
Welcome to Macintosh	10/16, 10/22
Introduction to DeltaGraph (MAC)	10/19
Introduction to dBASE III Plus	10/22
3 Com PC Network Level 1	10/23, 11/6
Wordperfect 5.1-Advanced Topics	10/23
Introduction to DOS	10/26, 11/2
3Com PC Network Level 2	10/29
Lotus 1-2-3 Release 2.2	
Advanced Topics	10/30
Introduction to Personal Computing for New Users	10/31
Introduction to Harvard Graphics	11/1
Excel Level 1	11/2
Introduction to Lotus 1-2-3, Release 2.2	11/5
Introduction to PC Keyboarding	11/5
Introduction to Wordperfect (MAC)	11/5
Wordperfect 5.0 — 5.1 Transition	11/6
FoxBase on the MAC — Level 1	11/9

Training and Development Services 496-6211

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

The URC hours are:

Mon.-Thurs.	8:30 a.m. — 7 p.m.
Friday	8:30 a.m. — 4:30 p.m.
Saturday	9 a.m. — 1 p.m.

Training Center, DCRT, and other training information is available on WYLBUR. Logon to WYLBUR and type ENTER TRAINING

Classes in Traditional Dance

Two forms of line dances—English country and American contra—will be offered on Oct. 25 and Nov. 29. There will be live music at each session. Couples and singles are welcome; no dance experience required. Soft-soled shoes should be worn. Each session will be held in Bldg. T-39, 7:30-9:30 p.m. at a cost of \$3.50, payable at the session. For more information, contact instructor Dan Seigel, 496-1331. To sign up, call the R&W Activities Desk, 496-4600. Drop-ins are welcome. □

Grosvenors Offer Housing Deal to NIH'ers

Discount housing that is within shouting distance from work and that benefits a worthwhile charity can't be real, right? Wrong.

The Grosvenors, two apartment complexes located in North Bethesda, are offering a unique deal to NIH employees: Sign a 1-year lease at Grosvenor House or Grosvenor Tower and get the security deposit waived and 5 percent off the monthly rent.

In addition, the Grosvenors will donate \$100 to the Children's Inn at NIH for every employee who signs a 1-year lease.

"We're offering a special rent program to the dedicated employees of NIH who are looking for rental housing within the immediate vicinity of the NIH campus," said David Low, president of National Housing Partnerships (NHP) Property Management Inc., the company that manages the Grosvenors.

"Because we already have so many NIH employees residing at the Grosvenors, we believe this program will only increase the number," he said.

Low and members of his staff recently kicked off the housing plan by visiting the inn and donating \$1,000 to the facility.

Andrew Tartler, executive director of the inn, welcomed the donation and the deal to NIH employees.

"Without contributions from hundreds of

individuals and businesses, we cannot continue to operate," he said, adding that the inn is still about \$3 million to \$4 million away from its goal of self-sufficiency.

Tartler said that according to accountant estimates, a \$5 million, interest-earning trust fund would allow the facility to meet its basic yearly expenses indefinitely; a \$7 million trust would give the inn a worry-free financial picture.

According to Kim Andreadis, NHP marketing director and co-organizer of the NIH offer, the Grosvenor-NIH housing deal is just the beginning of a long and mutually beneficial relationship.

"Eventually, we hope that the inn's volunteer coordinator will visit the Grosvenors to recruit residents to work at the inn," she said. "We also hope to be able to offer affordable, temporary housing to families of patients who can't be accommodated at the inn."

As a bonus of the housing agreement and to encourage use of the Metro subway to get to NIH, the management corporation will also give new residents a discounted Metro pass for the first month of the lease.

For more information about the housing arrangement, call Andreadis, (301) 530-5300 or (703) 733-2200.—Carla Garnett



David Low, president of NHP Property Management Inc., recently visited the Children's Inn at NIH and donated \$1,000 to kick off a new housing partnership program that pairs the Grosvenors apartment complexes and NIH employees. NHP has made a commitment to offer ongoing monetary support to the inn. Photo: Allen Hrenyk

'Because You Care, Help Is There'

NIH Launches Fall 1990 CFC Campaign on Oct. 17

It's that charitable time of year again. The Combined Federal Campaign will officially begin at NIH on Wednesday, Oct. 17. Organizers are optimistic that NIH'ers will top last year's record-breaking contribution level, which was the most successful in NIH history. The goal for this year's drive is approximately \$730,000.

To get the campaign off to a great start, the Eighth Annual CFC Kickoff will begin at 11:30 a.m. with a parade down Center Dr. from the Clinical Center to Bldg. 1. It will feature live music from area marching bands, the Orioles' Mascot, clowns and a special mystery guest.

After the parade you can participate in the 5K race or 1-mile walk coordinated by the Health's Angels Running Club. Applications are available through Oct. 12 at all R&W locations; there is a \$7 entrance fee and all participants will receive a free CFC T-shirt.

As part of the kickoff's festivities, you can meet in front of Bldg. 1 to enjoy lunch by Stromboli's restaurant and register for fantastic raffle prizes. Prizes will include a cordless telephone from Geico, Busch Garden tickets, Washington Capitals tickets and more.

Lunch will be served from 11:30 a.m. to 1:30 p.m. Meal tickets can be purchased for \$4 at all R&W stores through Monday, Oct. 15. Only a limited number of tickets will be available at the event.

Each year the Combined Federal Campaign raises funds from generous government employees and distributes the donations to various charities. Three of NIH's charities are listed on the donation form this year. These include the Children's Inn, Special Love, Inc., and Friends of the Clinical Center.

All employees who give a minimum donation of \$26 (or \$1 per pay period) will be eligible to win a raffle for a JVC TV/VCR/entertainment center donated by the NIH Federal Credit Union or a round trip domestic flight for two from USAir.

There will be a special raffle this year for CFC keyworkers—those who drum up contributions in individual offices. The prize will be two round trip domestic flight tickets on USAir.

The slogan for this year's CFC is "Because you care . . . help is there." Show your support Oct. 17 by participating in the kickoff events. □

Exhibit on Computers in Medical Research Opens Oct. 17

On Wednesday, Oct. 17, the DeWitt Stetten, Jr., Museum of Medical Research will officially open a new exhibit, "Computers in Medical Research." Prepared in cooperation with DCRT, NLM, and the Clinical Center, the exhibit focuses on the history of computers in biomedical research as exemplified in their use at NIH. The exhibit is located near the main clinic elevators, across from the admissions waiting area in Bldg. 10.

Opening ceremonies will be held at 2 p.m. in Lipsett Amphitheater. They will include a tribute to Dr. Arnold W. Pratt, the first director of DCRT, a pioneer in medical informatics who helped to bring computers to NIH and to apply the technology to biomedical research. Dr. William F. Raub, acting NIH director, will open the symposium, and Dr. William C. Mohler, acting DCRT director, will speak on the topic, "DCRT: Scotty the Pioneer."

Other speakers in the symposium and their topics are: Dr. G. Octo Barnett, director of the Laboratory of Computer Science at the Massachusetts General Hospital and professor of medicine at Harvard University Medical School, "Medical Informatics, Medical Care, and Medical Education"; and Dr. Daniel R. Masys, director of the Lister Hill Center for Biomedical Communications, "Biomedical Computing in the Future: Visualizing the Vir-

tual Library." The public is welcome to attend.

The exhibit includes objects from basic research laboratories such as the LINC computer, the first laboratory instrument computer; from clinical applications of computers such as a light pen used to read information for the Clinical Center's computerized patient-care records; and from biomedical communications applications such as the first version of *Index Medicus* prepared on a composing machine run by a computer.

To make the exhibit interactive and also to demonstrate yet another use of the computer, NLM developed a videodisc program operated via touchscreen technology. The viewer can learn more about any aspect of the exhibit by touching the appropriate menu item on a computer monitor.

For more information, contact Dr. Victoria A. Harden, curator of the Stetten Museum, 496-6610. □

Coffee Drinkers Sought

The medical psychology department, USUHS, is seeking volunteers, ages 18-45, for a study of the effects of common foods and beverages on mood and performance. Participation involves one morning session, lasting 2½ to 3 hours. Volunteers will be paid \$25. For more information call 295-3278. □

NIH Police Stand Tall In Peer Competition

Members of the NIH Police, competing against departments much larger than theirs, placed high in a recent competition of professional police skills.

At the first annual Patrol Officers Competition, sponsored by the Metropolitan Washington Council of Governments, NIH officers placed in the top 50 percent in three of four major categories—firearms, felony traffic stops, incident response and driving. The NIH'ers won a third place trophy in felony traffic stops; the trophy is on display in the police section, Bldg. 31C, B3 lobby.

Fourteen police departments in the metro area competed in the event held in Anacostia Park. Members of the award-winning NIH team were: Cpl. Bruce A. Blum, Cpl. Harold Miller, Ofc. Patrick Coajou and Ofc. Edward Landicho.

Hughes Institute Seminar Set

A special extramural forum on the Howard Hughes Medical Institute (HHMI) sponsored by the Office of Extramural Research will be held on Monday, Oct. 29 from 1 to 5 p.m. in Wilson Hall, Bldg. 1.

The purpose of the seminar is to acquaint the NIH extramural staff with the programs and research-funding of the HHMI so that staff can better understand the funding relationship between HHMI, the Hughes



investigators and their host institutions. This in turn will lead to a better understanding of the relationship of NIH grant requests by Hughes investigators.

Attendance by executive secretaries of initial review groups, program officers, grants management officers as well as contract officers is encouraged.

Dr. Purnell Choppin, president of HHMI, Dr. W. Maxwell Cowan, vice president and chief scientific officer, and Dr. Claire Winestock, senior research program administrator, will make the presentation and be available for questions. □