NIH African-American History Program Opens

Dr. Beverly Coleman-Miller, keynote speaker for the opening program of NIH's African-American History Month observance, could have discussed any number of African and African-American women who have earned the title "Warrior Queen," the theme of this year's program. She could have talked about Egyptian pharaoh Nefertiti or former Congresswoman Shirley Chisholm or cancer specialist Dr. Jane C. Wright or poet Phyllis Wheatley. But

Dr. Beverly Coleman-Miller

Coleman-Miller wanted to talk about an as-yet-unknown soldier, the smallest warrior queen.

"I decided that the warrior queens I wanted to talk about were born more recently," she said, describing an undersize, month-old baby girl born addicted to crack cocaine who rests in a unknown soldier, the smallest warrior queen.

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When AZT Flunks Out

NIAID Study Shows Two Drugs Slow HIV Disease

The drugs didanosine (ddl) and zalcitabine (ddC) are similarly effective and safe in slowing the progression of disease in HIV-infected individuals who no longer benefit from zidovudine (AZT) or who are intolerant of its side effects, according to a community-based study sponsored by NIAID.

At present, ddl is the only anti-HIV medication approved by the Food and Drug Administration for single-drug use in patients who cannot take or do not respond to treatment with AZT. ddC currently is indicated for use in combination with AZT.

"These new findings suggest that single-drug therapy with ddC has a role in the treatment of people with HIV disease who are unable to tolerate AZT or in those whose disease worsens while taking AZT," says Dr. Anthony S. Fauci,

Ficca Takes Post to Heart

Ficca Takes Helm at Office of Research Services

When Steve Ficca accepted Dr. Bernadine Healy's invitation to take over the Office of Research Services last winter following the retirement of ORS Director Norman Mansfield, he had but one stipulation—he'd take the job on an acting basis, but only for 6 months.

This past Christmas Eve, however, Ficca accepted for keeps the mantle of NIH associate director for research services, a title that became official Jan. 10. As with many other jobs he has held in the past 22 years at NCI and NHLBI, Ficca got deeply involved and found he liked the work.

He had been executive officer at NHLBI for 5 years when Healy asked him to consider the ORS post. "At first, I really wasn't interested," he relates. "Then I accepted it on an acting basis, with the great support of Dr. (Claude) Lenfant (NHLBI director). I was pretty sure I didn't want it, though, so Dr. Healy agreed that I'd work for 6 months—no longer. As time went on, I found myself more entrenched. I'm the type of person who takes things to heart, and my ORS roots grew rapidly and deeply."

Ficca found in ORS a wide variety of challenges in fields he had never explored. "It was risky for me," he admits, "but I found out in my first year that we could get some things done. We started the Natcher Bldg., set the Clinical Center on a new track toward a replacement building, and began many new management initiatives with all of the ORS divisions. Once I started these projects, I couldn't abandon them. I didn't like the idea of starting a project and not seeing it to completion."

With the sincere but somewhat reluctant blessing of Lenfant, Ficca has embarked on a full-fledged ORS leadership heading that will require, because of its extent and diversity, every bit of his

Scientists To Discuss NMR at the NIH Lecture, Feb. 24

Three NIDDK scientists will deliver the NIH Lecture on Wednesday, Feb. 24 at 3 p.m. in Masur Auditorium, Bldg. 10. They will speak on "Protein Nuclear Magnetic Resonance (NMR): Pushing Frontiers in Structural Biology."

The speakers, members of NIDDK's Laboratory of Chemical Physics, are Dr. Adriaan Bax, chief, biophysical NMR spectroscopy section; Dr. G. Marius Clore, chief, protein NMR section, and Dr. Angela M. Gronenborn, chief, structural biology section.

The trio has pioneered the development and application of NMR, a widely used analytical tool in chemistry that employs strong superconducting magnets to detect distinct magnetic waves given off by the nuclei of molecules.

Using sophisticated biophysical techniques and computers, scientists analyze these magnetic waves to identify and characterize molecular structures. Structural characterization of molecules is important in understanding the molecular components of disease processes and is considered a key to developing drugs to combat disease itself.

Available since the 1940's, NMR originally was limited to analysis of small, organic structures in one dimension only. Today, because of improvements in methodology and equipment and through the efforts of scientists such as Bax, Clore, and Gronenborn, the technique has put scientists on the threshold of understanding the role of molecules in disease and of developing treatments for many biomedical disorders, including HIV, the virus that causes AIDS.

The major focus of their research has been the development of multidimensional, heteronuclear NMR to extend the application of the NMR method to proteins of more than 150 residues.

Novel Regimen May Help Treat Sickle Cell Disease

A novel regimen of hydroxyurea, recombinant erythropoietin, and an iron supplement may reduce the debilitating effects of sickle cell disease, a genetic blood disorder, researchers at NIDDK and Johns Hopkins University report in Jan. 14's New England Journal of Medicine.

In the study, led by Dr. Griffin P. Rodgers of NIDDK, four patients with sickle cell disease had beneficial changes in their blood after receiving hydroxyurea and escalating doses of erythropoietin with oral iron sulfate over 7 weeks.

Hydroxyurea, an anticancer drug, benefits some patients with sickle cell disease by increasing the production of fetal hemoglobin. This increase reduces the tendency of the hemoglobin in defective red blood cells to "polymerize" or form long fibers, causing the cells to clump inside the blood vessels. This distortion results in anemia, painful crises, and other complications, including death.

This study sought to enhance the benefits of hydroxyurea by encouraging the production of more red blood cells with fetal hemoglobin using recombinant erythropoietin.
Because of their work, it is now possible to create highly accurate three-dimensional structures of proteins up to 25,000 daltons. They hope to be able to use the NMR method on even larger proteins. Using these techniques, they have elucidated the high-resolution solution structures of many important proteins such as those related to AIDS, as well as cytokines and chemokines.

The three-dimensional structure of a protein or other biomolecule provides critical information about the molecule’s function, about possible drugs that can be targeted against it, and understanding of its role in the cell, according to Dr. Allen Spiegel, NIDDK intramural director and official host of the NIH Lecture.

"Nothing short of the real, three-dimensional structure can give you that kind of information. It’s anticipated increasingly that the availability of this information will really revolutionize our understanding of the function of various proteins and, through rational drug design, give us new insights into how to intervene in pathologic processes," said Spiegel.

The investigators are currently analyzing the structures of a number of cytokines, including interleukin-1B, interleukin-4, and interleukin-8, which play a key role in the immune and inflammatory responses. They are also studying calmodulin, a ubiquitous, biologically important molecule that binds calcium in the cell and thereby regulates the activity of other important enzymes and proteins. They are also working on the structures of a number of DNA-protein complexes.

In addition, the investigators are attempting to determine the structure of key proteins associated with HIV infection. This work could lead to an ability to block HIV integrase, a protein that combines the HIV nucleic acid with the host cell genome. If the virus cannot integrate into the cell it will not replicate. No replication could mean no more AIDS.

Until recently, the only way to determine the three-dimensional structure of a protein was through x-ray crystallography, a process that involved purifying enough protein to allow it to crystallize, and then x-raying it. Using sensitive biophysical techniques and computers, one could then determine a three-dimensional structure.

However, it is difficult to crystallize many types of proteins. NMR not only more closely approximates the real state of a protein, but also permits molecular motions to be studied. Using NMR, scientists can see proteins change their shape and analyze their response to different modifications. This is a key advantage in understanding the protein’s role.

Bax received his Ph.D. in applied physics in 1981 from Delft University of Technology in The Netherlands. He came to NIH in 1983 as a research associate and was promoted to section chief in 1991.

Bax has received numerous honors. He was awarded the Allan C. Davis Medal of the Maryland Academy of Sciences as Maryland’s Outstanding Young Scientist for 1987. He received the NIH Director’s Award in 1992. Last year, Science Watch declared Bax “the world’s most cited chemist,” based on use of his chemistry journal articles describing his NMR research advances.

Clore received his M.D. in 1979 and his Ph.D. in 1982 from the University of London. He came to NIH in 1988 as an NIDDK senior investigator and was promoted to chief of the protein NMR section in 1991.

In 1990, Clore won both the Distinguished Young Scientist Award of the Maryland Academy of Sciences and the Scientific Achievement Award (Biological Sciences) of the Washington Academy of Sciences. He received the NIH Director’s Award in 1992.

Gronenborn received her Ph.D. in organic chemistry from the University of Cologne, West Germany. She came to NIH in 1988 as an NIDDK senior investigator and became chief of the structural biology section in 1991.

In 1990, Gronenborn won the Scientific Achievement Award (Biological Sciences) of the Washington Academy of Sciences. In 1992, she received the NIH Director’s Award.
NHLBI Grantees Observe Model Asthma Program for Minorities

The young Hispanic mother of five asthmatic children gaped in disbelief and shouted, "Are you kidding?" She was responding to a question about whether she preferred emergency room treatment for her children's asthma or continuous care at a New York City child health clinic.

The rhetorical question came from a team of grantees of NHLBI's Lung Division on a site visit to the New York City health department's Sunset Park health clinic. The visit was part of a 2-day meeting of investigators from NHLBI's "Interventions for Control of Asthma in Black and Hispanic Children," arranged to review progress in the 5-year projects, to discuss unexpected challenges to their programs, and to observe the New York City project. Dr. Robert Mellins of the department of pediatrics at Columbia University is director of the New York City project.

In August 1990, NHLBI awarded 5-year grants totaling $10 million to five universities to test new organizational approaches to improve medical care, monitor children's asthma, and educate families in asthma management in African American and Hispanic communities. At the time, NHLBI director Dr. Claude Lenfant noted that asthma has been increasing in prevalence, morbidity and mortality in recent years, especially among African Americans and Hispanics. "Research is needed to develop model, replicable programs that reduce illness from asthma and improve the quality of life for children with asthma," he said.

'Old MacDonald' Recruited

Three Agencies To Cooperate in Agricultural Health Study

The National Cancer Institute, the Environmental Protection Agency and the National Institute of Environmental Health Sciences have announced the initiation of a joint study that will be the nation's largest ever epidemiologic study of farmers and their families.

The Agricultural Health Study will identify and assess factors that may account for previously reported cancer excesses among farmers. About 100,000 farmers, spouses of farmers, and pesticide applicators will be involved in the $15 million study, which is planned to last at least 10 years. The research will also assess noncancer health endpoints (e.g., reproductive and neurologic) that may also be associated with farm practices and lifestyles.

Farmers tend to live longer and healthier lives than other people. But evidence has shown that they have higher than normal rates of several cancers. These cancers include leukemia, multiple myeloma, non-Hodgkin's lymphoma, and cancers of the brain, prostate, stomach, skin, and lip. This phenomenon may be due in part to farmers' chronic exposures to potentially harmful compounds such as pesticides (insecticides, fungicides, rodenticides, herbicides, and others), chemical solvents, engine exhausts, animal viruses, sunlight, and other substances common to agriculture.

Although some of these agents have been linked to the development of cancer, reasons for farmers' increased risks for many types of cancer are still unclear. These same agents may also be associated with other health effects such as neurologic or kidney diseases, conditions not yet well studied in farmers.

In addition to studying occupational exposures of farmers themselves, the investigators will study the health of farm family members who may also be exposed to lower levels of the same potential farming hazards. This portion of the study may be especially relevant to the general population. Chemicals traditionally associated with agriculture (pesticides, fertilizers) can now be commonly found in urban areas. Furthermore, some cancers excessive among farmers appear to be increasing in the general population.

As a result of a competitive process, 5-year contracts were awarded to study two states. Contractors are the University of Iowa College of Medicine, Iowa City, and Survey Research Associates, Durham, N.C. These two states were chosen as field sites based on their populations of farmers and pesticide applicators and their types of farm products, as well as the level of representation of minority participants. Subjects will be enrolled in the study over a 3-year period, as they renew pesticide applicator's licenses. All participants will come from Iowa and North Carolina.

Of the 100,000 study subjects, 46 percent will be farmers who apply pesticides to their crops and livestock, 34 percent will be spouses of farmers, and 20 percent will be other pesticide applicators. It is estimated that 60 percent of the subjects will be male and 40 percent will be female. Information on the children of the farmers will also be included.

Because this is a prospective study, investigators will collect data on exposures and disease as they occur, instead of relying entirely on information from the past. This approach helps to reduce errors associated with trying to remember events, and will make conclusions more valid. A prospective design also provides the opportunity to evaluate a wide variety of endpoints that may relate to agricultural factors.

The study itself is composed of several parts. In the main study, the farmers, their dependents, and the pesticide applicators will be followed for 10 years or longer. Investigators will compare the number of cases of cancer that are expected to appear in this population to the number that actually appear. They will also compare disease risks in individuals exposed to specific substances to risks in unexposed individuals.

(See FARM STUDY, Page 4)
The study, conducted at 78 sites affiliated with the 17 units of NIAID's Terry Beirn Community Programs for Clinical Research on AIDS (CPCRA), enrolled 467 patients, approximately two-thirds of whom had been diagnosed with AIDS.

“In addition to providing opportunities to participate in research studies to those who might not otherwise have access to them,” says Dr. Lawrence R. Deyton, chief of the community research branch of NIAID’s Division of AIDS, “the CPCRA has demonstrated with this study that community-based clinical trials can provide important information to front-line health providers and persons with HIV.”

The study had an "open-label design," meaning that although participants were randomly assigned to receive either ddl or ddC, both the investigators and patients knew which drug each patient was receiving.

The midpoint of the CD4+ T cell counts of the patients in the study was 37 cells per cubic millimeter (mm3) of blood. CD4+ T cells are the crucial immune cells depleted during HIV infection. Healthy persons without HIV disease usually have 800 to 1,500 cells/mm3. Of the 230 patients taking ddl, 156 died or suffered new infections or other conditions indicating a worsening of their HIV disease. Of 237 in the ddC group, 150 participants became more ill or died.

“In both groups, the time to the first event that marked a progression of disease was about 9 months,” says Dr. Donald I. Abrams, chairman of the San Francisco Community Consortium and principal investigator of the study. “The trend in survival rate for patients taking ddC was slightly better, but not statistically significant. Patients taking ddl had a small, transient rise in their CD4+ T cell count early in the study, but this increase lasted only a short time.”

Approximately two-thirds of patients on each of the study drugs suffered at least one adverse event attributable to their assigned medication. However, the pattern of these side effects was different for each drug. Compared with patients who received ddC, more patients who took ddl reported stomach pain, diarrhea and symptoms of pancreatitis as the most common side effects. Patients who took ddC were more likely to report numbness, pain or burning in their feet or hands, and painful mouth ulcers.

“These results reinforce previous observations that ddl and ddC have different toxicity profiles, important considerations for physicians when recommending antiretroviral treatment for an individual patient,” says Abrams.
SICKLE CELL DRUG REGIMEN OFFERS CAUTIOUS OPTIMISM

By giving hydroxyurea for 4 consecutive days and then erythropoietin for 3 consecutive days, researchers increased fetal hemoglobin by 48 percent over levels achieved using hydroxyurea alone. The regimen also increased the number of red blood cells containing fetal hemoglobin from 64 to 78 percent.

"It's basically a one-two punch," explains Rodgers. "You increase the total fetal hemoglobin production with hydroxyurea, and erythropoietin comes in and gives a synergistic effect, further diluting the effect of sickle hemoglobin." Iron supplements, an element not used in earlier studies, appeared to help increase the number of red blood cells by allowing erythropoietin's full biological effect.

Rodgers also noted that the findings seem to contrast with those of a similar study published in 1990 in the New England Journal of Medicine, but there were several differences in the protocols, including the fact that the earlier study did not use oral iron sulfate.

Although the results appear promising, researchers caution that the treatment is not yet ready for clinical use. "It's highly experimental," said coauthor Dr. Arthur Nienhuis of NHLBI. "Additional clinical studies are needed to fully evaluate its potential."

Increasing fetal hemoglobin levels reduces the levels of adult sickle hemoglobin and thereby reduces the severity of the disease, and, researchers hope, its high rate of morbidity and mortality. "The goal of the current study was not only to increase the amount of fetal hemoglobin in red blood cells but also to increase the distribution so that more red blood cells would have it," said Rodgers.

Prior to birth, fetal hemoglobin, which does not polymerize, is the predominant form of oxygen-carrying molecules in red blood cells. After birth, fetal hemoglobin is reduced to 1-2 percent, and in individuals with sickle cell disease, the adult sickle hemoglobin that causes the disease predominates.

Hydroxyurea is approved by the Food and Drug Administration for use as an antineoplastic drug. Erythropoietin is approved for treatment of the anemia associated with end-stage renal disease. A limited trial at five sites around the country being coordinated by Rodgers is trying to determine the optimal dose of each drug in treating sickle cell disease.

The combined therapy may be especially valuable in treating children with the hereditary blood disorder because it requires lower doses of hydroxyurea. Doctors have been reluctant to give children high doses of hydroxyurea because it suppresses bone marrow and its long-term toxicity and effects on growth and development are unknown.

Although still experimental, if the treatment proves widely effective, it could cut medical costs significantly for severely affected patients who are hospitalized frequently for blood transfusions and antibiotic treatment.

Sickle cell disease occurs worldwide among diverse racial and ethnic groups. In the U.S., the disease primarily affects African Americans, striking 1 in 500 newborns in this group.

Patient care and clinical support for this study were provided by the Clinical Hematology Branch, NHLBI. Other study coauthors are Dr. Constance T. Noguchi, NIDDK; Dr. Alan N. Schechter, NIDDK; Dr. George J. Dover of Johns Hopkins; and Dr. Nobuhiro Uyesaka of Nippon Medical School, Tokyo.

HISTORY PROGRAM SALUTES AFRICAN-AMERICAN WARRIOR QUEENS

The Cardiology Branch, NHLBI, needs normal healthy postmenopausal women who are not on hormone replacement therapy for a study assessing the effects of hormone replacement on the cardiovascular system. The study involves two outpatient visits. Volunteers must be in good health and on no regular medications. Participants will be paid. For more information, call Diane Badar, 104-3741-7 (digital beeper).
refreshingly wide range of interests.

Though he has not yet unpacked boxes of mementos from his earlier administrative posts at NIH, Ficca’s office decor offers insight into his values. Prominent among the artifacts are his photographs of the late jazz legend Miles Davis, a trumpet player, composer and painter who was as famous for creating bold new styles as he was for excelling in any one of them.

Ficca recounts with pleasure a Davis concert in Washington, D.C., 2 years ago that drew big-tent America—the suits, the kente cloth, the denim, the hoary heads that had seen Davis perform in New York in the 1950’s as well as ponytailed hipsters who were seeing jazz’s most prolific recording artist for the first time.

“That ability to draw such a diverse range of people is a trait I respect in people,” reflects Ficca, who takes over perhaps NIH’s most diverse work force.

Born in Wilmington, Del., Ficca grew up loving music and brawny exertion, and cherishing unabashedly romantic notions of a life in the railroad or perhaps medicine. While an undergrad at the University of Delaware, he toured a variety of majors including psychology, music and pre-med before settling on business economics. Outside the classroom, he played trumpet in the school marching and jazz bands.

“I took some aptitude tests to find out what I might settle on for a career,” he recalls. “They showed I was best suited to be a teacher, either of music or biology. Since I was good at math and economics, I chose my eventual major.”

During college summers, Ficca worked on a track gang for the C&O/B&O Railroad, spiking steel for spending money.

“That was a fun time,” he reminisces. “At that point I thought I’d end up being a manager for the railroad. I had several opportunities to talk with some of the top managers at Baltimore headquarters and it was quite stimulating. It was a romantic outfit that I could identify with.”

Following college, Ficca enrolled at Loyola College in Baltimore, where he obtained an MBA. It was during undergraduate and postgraduate trips to Washington to such jazz outposts as the old Cellar Door that he became aware of a place called NIH.

“I guess it was fate,” he says of his decision to apply here. “From the moment I first saw NIH, I knew I would like to work there.”

Expressing his interest in a possible career in health administration to a relative, Ficca was put in touch with Phil Amoruso, who is now NCI’s executive officer. Then in the NCI budget office, Amoruso was talking with young Ficca when Jack Patterson, well-known at NIH as a CFC and Bond Drive consultant who retired as NIDR executive officer, hired him on the spot.

“I had some preconceived notions of working in personnel, or in hospital administration—

something involving work with medical doctors,” Ficca remembers. “After my first year here (1971), I got a better idea of what NCI, and to a lesser extent NIH, was all about and began to focus my career goals toward administrative management.”

He then spent 3 years in NCI’s Administrative Career Development Program (see related story, page 7), learning the ropes with a variety of distinguished NIH’ers. Interestingly, Ficca’s NCI career rose nearly in parallel with those of Amoruso and Dr. Vincent DeVita, from division-level management to institute leadership.

After 16 years at NCI, during which he served in a variety of budget and administrative positions, Ficca became executive officer at NHLBI in 1987.

Ficca indicated that deciding to leave NHLBI for the ORS director’s position was especially difficult since it meant leaving for the first time the extramural and intramural program operations that he had grown so fond of over the years. It was from the NHLBI job that he was lured to Bldg. 1 a year ago.

Like the music of Miles Davis, Ficca wants to keep ORS plans “ahead of the curve.” Accordingly, the most important initiative for now is NIH’s 20-year master plan, which “will set out a direction and become our blueprint for growth and how to meet program needs in the next 20 years.”

Ficca calls the Clinical Center replacement project “the keystone to the whole master planning concept. The CC represents approximately one-half of the occupiable space on campus, so essentially we’re talking about moving half the campus.” An excellent Design and Engineering Services team has already completed early phases for this project, he said, adding with a laugh, “What we need now is money.”

Ficca said by the time a first draft of the master plan is prepared late this spring, ORS should have a clearer picture regarding this project and site selection possibilities. With regard to this and all planned facilities, it is essential that they include a flexible design in order to meet changing research needs, Ficca emphasized.

NIH also needs state-of-the-art cell biology and metabolism facilities, primarily to extend knowledge gained through the Human Genome Project, he said. The genome program’s intramural program is also an ORS priority, Ficca related.

“Art Levine (NICHD scientific director) explained to me that we’re at the stage now of writing the telephone book of all the genes. Next we need to analyze the relationships among those names—who’s related to whom and who knows who.”

Underlying the best-laid plans of this and future generations of scientists is the grim realization that NIH didn’t pay its maintenance dues over the past few decades; a massive repair and improvement program is sorely needed.

“We didn’t spend the money for proper maintenance earlier, and now we’re paying for it,” Ficca admitted. “We’re past the day when spare parts could repair systems. Now whole systems need replacement. We’ve got to spend big bucks to address these problems.”

National Academy of Sciences and Army Corps of Engineers studies show that large facilities such as NIH ought to spend 2 to 4 percent of the total replacement costs of the facility for maintenance. “That would work out to some $73.5 million for NIH,” Ficca calculates. In the past, NIH has been able to afford an average of about $10 million annually for the needed repairs, he said. “If this continues, we can do only the most critical repairs, and slowly do maintenance over time, but we’ll fall behind.”

Ficca is quietly confident that Healy’s strategic planning for NIH makes the intramural program and its needs a high enough priority that ORS will be able to meet its challenges. That these hurdles are all completely new to him just makes the job more fascinating.
**Career Development Program Announced in March by NCI**

The NCI Administrative Career Development (ACD) Program will accept applications Mar. 1-22. Up to two candidates will be accepted for the program, which fills positions at the GS-7, 9, 11 and 12 levels. The program prepares individuals with management potential for administrative management positions at NCI. ACD interns work closely with a mentor in planning formal coursework and developmental assignments in such areas as financial management and planning, grants and contracts management, and personnel management. The length of internship is based on the intern's interests, previous experience and education, and may last up to three years. After completing the program, interns take administrative positions at NCI.

Applicants must:
- Be an HHS employee and currently hold a career or career-conditional appointment at the GS-7 level or above;
- Occupy or be willing to accept a full-time position, and
- Meet the basic eligibility requirements for the position, available from the NCI staffing office, Bldg. 31, Rm. 3A16.

NCI staff will discuss the program at an information session on Mar. 8 from 2 to 4 p.m. in Wilson Hall, Bldg. 1. Application packages will be available there and from the NCI Personnel Management Branch, Bldg. 31, Rm. 3A16. For more information call 496-6862.

**Blood Donor Day Planned**

This month, the NIH Blood Donor Center held its annual luncheon for the volunteers who assist in donor resources. "This is a small token of our appreciation and gratitude for their commitment to the department of transfusion medicine," said a spokesman.

Donor Appreciation Day will be held on Friday, May 21, from 11 a.m. to 2 p.m. "This is our way of expressing thanks for your commitment over the past year to the Blood Donor Center," said DTM. For more information about Donor Appreciation Day or to schedule a blood donation, call 496-1048. The center is located in Bldg. 10, Rm. 1N916. Hours are Monday-Friday, 7:30 a.m. to 3:30 p.m. and Tuesdays, 7:30 a.m. to 12:30 p.m.

**DCRT Computer Training Classes**

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Classes are offered by the DCRT Training Program without charge. Call 496-2339 for more information.

**NICHD Sponsors Pain Conference**

The National Center for Medical Rehabilitation Research (NCMRR) of the NICHD is sponsoring a conference titled "Chronic Pain Management: Developing a Treatment System for People with Disabilities." The conference will take place from 9 a.m., Mar. 1 through 12 p.m. Mar. 3 at the Pooks Hill Marriott Hotel, 5151 Pooks Hill Rd. in Bethesda.

Chronic pain is often defined as pain that persists after an illness has passed or an injury has healed or recurs at intervals for months or years. As of 1989, chronic pain syndromes afflicted one third of the U.S. population, resulting in more than 550 million lost work days and costing the nation more than $70 billion.

Speakers at the NCMRR conference will place particular emphasis on the special needs for treatment of pain during and after rehabilitation of a physical disability. Conference presentations will include: personal experiences with chronic pain, goals of pain management, measurement and assessment of chronic pain, and research needs on treatment effectiveness and rehabilitation issues.

Those interested in attending the conference may contact Dr. Cheryl Chanaud, 402-2242.

**Cruise the Isles**

R&W is sponsoring a four-night cruise aboard Royal Caribbean's Nordic Empress to Nassau, Freeport and a private island on Apr. 12. "M" category cabins (inside) are $799 per person, double occupancy; "H" category cabins (outside) are $899 per person, double occupancy. Call 496-4600 for more information.

**Yoga Classes Begin**

A 6-week session of Hatha Yoga classes will be conducted by a certified integral yoga instructor on Mondays, Mar. 1 to Apr. 5, 5:30-7 p.m. in Billings Auditorium, Bldg. 38. Cost is $20. Call Ruth, 496-6061, for more information.

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Dr. Leroy Nyberg recently was named senior urology advisor, a position approved by the HHS secretary. Under his leadership, a joint NIH/American Foundation for Urologic Diseases urology research training program has been developed, urology research centers have been established, and the NIDDK urology program has doubled in size. In addition to responsibilities as deputy director of NIDDK's Division of Kidney, Urologic, and Hematologic Diseases, Nyberg will continue to direct the urology and women's urological health research programs and chair the urology subcommittee of the kidney, urologic, and hematologic diseases interagency coordinating committee.
STEP Program Explores Prostate Cancer

The Staff Training in Extramural Programs (STEP) committee will present a "Science for All" program entitled "Prostate Cancer: Problem, Progress, Promise" on Mar. 10 from 1 to 3:30 p.m. in Wilson Hall, Bldg. 1. The series is designed for NIH staff, without scientific backgrounds, to increase their knowledge about timely scientific issues.

Prostate cancer is one of the least publicized epidemic causes of disease and mortality in men. Risk increases more rapidly with age than with any other form of cancer, a major problem as the baby boom population moves into the next century. In 1992, 132,000 American men will be diagnosed with prostate cancer, and 34,000 will die of the disease. One of 11 men will be diagnosed with prostate cancer in his lifetime, and a majority may have occult prostate disease at time of death. Black men are at especially high risk, with prostate cancer accounting for 25 percent of all cancer diagnoses in this population.

Detection can be difficult because the most common test currently employed is a digital rectal exam, and the disease has no symptoms at its earliest, most treatable stage. While new tests are coming, their cost and efficacy as general screening tools are being questioned.

The lecture will take place in the H. Trendley Dean conference room (Rm. 117) of NIDR’s Bldg. 30. All NIH employees are welcome.

Hearing Impairment in Infants, Children Is Subject of Consensus Conference

Approximately one of every 1,000 infants is born deaf. Many more children develop some degree of hearing impairment later in childhood.

An NIH Consensus Development Conference on the "Early Identification of Hearing Impairment in Infants and Young Children" will explore important scientific issues concerning childhood hearing impairment. Sponsored by NIDCD and the NIH Office of Medical Applications of Research and cosponsored by NICHD and NINDS, the conference will be held Mar. 1-3 in Masur Auditorium, Bldg. 10.

The knowledge and methods for the early identification of childhood hearing impairment exist. Nevertheless, across the United States, the average age of identification remains close to 3 years. Lesser degrees of hearing impairment may go undetected even longer. Any degree of hearing impairment can have devastating effects on a child’s speech and language development, learning and social interaction. Unfortunately, much of the critical period for speech and language development has passed by the age of 3 years.

The conference will bring together specialists in audiology, otolaryngology, pediatrics, neonatology, hearing science, speech-language pathology, health care administration, epidemiology, counseling, and other health care areas and will include representation from the public.

The goal of the conference is to reach agreement on which infants and young children should have their hearing screened or tested and at what age, which methods and models are preferred for identifying hearing impairment in infants and young children, and the key areas for future research.

Following 1 1/2 days of presentations and audience discussion, an independent nonfederal consensus panel will weigh the scientific evidence and write a consensus statement. A press conference on Mar. 3 will conclude the conference.

The conference is free and open to the public. Sign language interpretation and reasonable accommodations will be provided. To register call Debra Steward, Technical Resources, Inc., (301) 770-3153 or Jo Bagley, NIDCD, 402-0252 (TDD/TT). □

Breast Cancer Talk Scheduled

The NIDR employees advisory committee is sponsoring a talk on breast cancer Thursday, Feb. 25, from 9 to 10:30 a.m. Dr. Sandra Meta Swain, director of the comprehensive breast center at the Lombardi Cancer Research Center, is the speaker. Her talk, directed toward a lay audience, is titled "Causes and Risk Factors of Breast Cancer and the Chemoprevention Trial." Committee members decided to sponsor the event after an informal survey showed that breast cancer was high on the list of health concerns among employees.

The lecture will take place in the H. Trendley Dean conference room (Rm. 117) of NIDR’s Bldg. 30. All NIH employees are welcome.

Gender Differences Talks Continue

The Women’s Health Seminar Series, sponsored by the Office of Research on Women’s Health, will hold the second of its four parts on Tuesday, Mar. 2 from 2 to 4 p.m. in Lipsett Amphitheater, Bldg. 10 on "Gender Differences in Addictive Behaviors: Alcohol, Smoking and Other Drugs." The three presenters at the seminar are: Dr. Sheila B. Blume of South Oaks Hospital, Long Island, who will address "Alcohol and Other Drugs: Gender Differences." Dr. Neil E. Grunberg of USUHS will speak on "Gender Differences in Tobacco Use." And Dr. Andrea G. Barthwell from Interventions, Chicago, will interpret the data presented and discuss "Ethnic Differences in Alcoholism and Other Drug Dependency." For more information call Joyce Rudick, 402-1770.

Readers Needed for the Blind

Metropolitan Washington Recording for the Blind (RFB) urgently needs volunteers who are able to donate their expertise for about 2 hours each week to record textbooks for students who are blind, dyslexic, or have other reading impairments. RFB needs volunteers who are fluent in one or more areas of science or math and who are able to verbalize the graphic material found in technical texts. For more information call (202) 244-8990.
NIGMS Director Kirschstein Receives FASEB Award

The Federation of American Societies for Experimental Biology (FASEB) has announced that NIGMS director Dr. Ruth L. Kirschstein will be the recipient of its 1993 Public Service Award, which is given "to the individual who has made outstanding contributions to the cause of biological or medical research in such fields as government, public affairs, writing, the law, and other areas."

Kirschstein, who has directed NIGMS for 18 years, is being honored for her "strong leadership in the fields of basic biomedical research, research training and women's health issues," according to FASEB president Dr. Shu Chien. Chien described Kirschstein's leadership during her 35-year federal career as both a scientist and an administrator as "effective, intelligent and compassionate." He noted that her "record of achievement provides definitive evidence of the importance of basic research to the health of the American people and to the nation's economic growth."

The award will be given at the FASEB board meeting in June. FASEB is an organization of nine scientific societies with a membership of more than 43,000 biomedical researchers. Previous recipients of the FASEB Public Service Award include former House Speaker Thomas P. (Tip) O'Neill, Jr., the late Rep. Silvio Conte of Massachusetts, Rep. William Natcher (D-Ky.), columnist Ann Landers, philanthropist Mary Lasker, and former NIH director Dr. James Wyngaarden.

Study Requires Women

Women ages 18-45 with normal menstrual cycles are needed for hormone studies. Blood, urine, and endometrial samples will be collected. Compensation is available for participants. Call 496-4244 and ask for the Blithe study.

DCRT Names Risso New Deputy Director

William Risso was named deputy director for the Division of Computer Research and Technology on Jan. 24. Before the appointment, he served as DCRT's associate director. As he moves into his new position, Risso predicts that change in computational bio-sciences and the computing industry will continue to challenge DCRT. "As the computing environment evolves, DCRT is strengthening its commitment to distributed systems, massively parallel computing, networks, and other new ways to put computing into the scientists' hands. We're responding to what the NIH scientific community has asked of us," he said.

The success of NIH's mission, Risso points out, increasingly relies on the power that computers and computer network connections bring to biomedical research. "Exciting initiatives in such areas as medical imaging, biomedical databases, high-speed networking, and high-performance computing all benefit clinical and research efforts," he said. But he noted that large administrative applications and databases are critical components of the NIH, and he looks forward to continuing innovation in these areas. "We're aggressively pursuing new ways of making the very successful DCRT central computing resources available to the community," he remarked.

Risso is no stranger to NIH's biomedical computing environment. During more than 20 years with NIH, he served in the Commissioned Corps as an electronics engineer and advanced to be DCRT's associate director, serving as special assistant to the director and assistant director of the division along the way. During his early career as an engineer, he helped to design innovative computer systems for CT/PET/MRI scanning, patient monitoring, image processing, and laboratory data analysis. Responding to recommendations from NIH's scientific community in 1989, Risso created and has directed DCRT's computational molecular biology section, which provides support and guidance to NIH intramural scientists interested in applying computer-based tools to the collection and analysis of DNA and protein sequence data.

Dr. David Rodbard, DCRT's director, marked the occasion by saying, "Bill's experience and expertise in electronics and computer engineering very nicely complement my own background in clinical medicine and research."

Risso was recognized with a 1991 NIH Director's Award for his "exceptional contributions to the planning and completion of DCRT's initiatives, particularly in the areas of scientific computing."

FAES Has Summer Grants

The FAES will award grants of $1,200-$2,100 to students conducting research at NIH this summer. An additional $500 to cover travel and living expenses might be available if need can be demonstrated. High school, undergraduate, graduate and medical students who will work for a minimum of 8 weeks are eligible. Applications are available in the FAES business office, Bldg. 10, Rm. B1C18 or by calling 496-7975. Completed applications must be received by Apr. 2. Award notification will be made by the end of April.

Income Tax Preparation Offered

An independent accounting firm, Teti & Carswell, will offer income tax preparation and/or consultation at NIH for employees and foreign nationals. Weekend appointments are also available. Reduced fees are available for service arranged through the R&W, 496-4600.
NINDS' Karin Nelson Receives Award for Seizure Research

Dr. Karin D.B. Nelson, medical officer in the Neuroepidemiology Branch, NINDS, recently received the annual Distinguished Clinical Investigator Award from the American Epilepsy Society and Milken Family Medical Foundation. The award was presented to Nelson at the society's 4th Annual Research Awards Program in Seattle.

The program honors professionals whose research has brought creative new perspectives to the search for causes and treatments of epilepsy and other childhood seizure disorders. Nelson was recognized for her work, along with Dr. Jonas Ellenberg, chief of the Intramural Biometry and Field Studies Branch, NINDS, and other colleagues, on neonatal febrile and nonepileptic seizure disorders in children.

Febrile seizures are the most common form of childhood seizure disorder. Approximately one in every 25 children will have at least one febrile seizure and more than one-third of these children will have additional seizures before they outgrow the predisposition to them. Although they can be frightening to parents, the vast majority of febrile seizures are harmless and rarely cause serious brain damage.

Nelson's studies have had a significant impact by showing the benign nature of this condition and questioning the effectiveness of the most common treatment, phenobarbital. A recent study by Nelson and colleagues not only documented the ineffectiveness of phenobarbital in "high risk" children with febrile seizures, but also substantiated negative effects of the drug on cognitive functions.

Nelson's contributions extend beyond the field of febrile seizures. According to the Milken Foundation, her work in cerebral palsy is legendary. Her extensive writings and teachings have established that most cerebral palsy is of unknown cause, that few cases are due to asphyxia at birth, and that many cases of asphyxia at birth are a result, not the cause, of neurological damage.

Cerebral palsy is a group of disorders affecting the motor-control areas of the central nervous system. The symptoms include movement and balance problems, spasticity, delays in physical development, and seizures, speech difficulties, and learning impairments. An estimated half million Americans have cerebral palsy.

Nelson and Ellenberg have long searched for the origins of cerebral palsy. Much of their work was based on the Collaborative Perinatal Project, a large NINDS-supported study of more than 45,000 pregnant women and their children. Nelson and Ellenberg found that when they considered the conditions around labor, delivery, and the newborn period for these women and their infants, they could improve predictions of which infants would have cerebral palsy by only 3 percent. They also discovered that there was no correlation between maternal diabetes, length of labor, or drug use and cerebral palsy.

Nelson's other studies focus on seizures in young children and the risk of recurrence, and the effects of seizures on intellectual development. And, although epidemiology has been an important discipline within neurology, Nelson is one of the few neurologists who have applied epidemiologic techniques to the study of pediatric epilepsy.

Nelson received her medical degree from the University of Chicago School of Medicine. She then trained in neurology at George Washington University and NINDS. She has been an associate clinical professor of neurology at George Washington University since 1972 and an attending neurologist at Children's Hospital in Washington, D.C., since 1971.

Over the years, Nelson's research has garnered her many honors and awards including the NIH Merit Award and the Hower Award of the Child Neurology Society in 1991, and the NIH Director's Award in 1992. She is an honorary member of the Society of Perinatal Obstetricians and the Canadian Association of Child Neurology.

Nelson is a member of the Child Neurology Society, the American Academy of Neurology (ex-councillor), the American Epilepsy Society, the American Neurological Association, the International Child Neurology Association, and the Baltic Child Neurology Association. She serves on the editorial boards of Pediatric and Perinatal Epidemiology, Developmental Medicine and Child Neurology, and Brain and Development, and is field editor for Epilepsy Advances. She has served on many professional committees and has acted as a consultant to many groups.

NIH Manual System Revised; Available in Print Form or via Bulletin Board

As a result of efforts of the NIH manual systems contacts subcommittee, a new NIH Manual 1710 "NIH Manual System" was recently issued, effective Jan. 4. The subcommittee, chaired by John Migliore, used a customer-focused approach in the development of the chapter. The subcommittee was composed of staff from the policy issuing offices, policy clearance staff and the ICDs. The chapter represents the efforts of the subcommittee to enhance the quality and uniformity of NIH policies and procedures using one mechanism, the NIH manual chapter, for issuing internal NIH policy. I&I memos will no longer be issued. Other major changes in the new policy include:

- Revising the format of a manual chapter to be compatible with today's computer technology;
- Creating forms to enhance the review and approval process when issuing an NIH Manual chapter;
- Allowing for simultaneous rather than sequential policy review before a manual chapter is issued in final;
- Promoting the use of the MANUALS electronic bulletin board for policy dissemination; and
- Establishing an ongoing evaluation of the NIH Manual System through periodic meetings of the MSCs.

In addition to being distributed on the NIH Manual mailing keys, text of the chapter is also available in the MANUALS bulletin board in the MGMTASCI and MGMTBIN directories under filename M710. Additional paper copies are available from the Division of Support Services, 496-1787, and the Division of Management Policy, 496-2832. Call this number if you have questions on the new policy or would like to learn how to use the bulletin board.

D.C. Opera Sponsors NIH Nights

The Washington Opera has designated two of its spring performances "NIH R&W Nights at the Opera." Shows are Turandot, by Puccini on Wednesday, Mar. 10, 8 p.m. and The Cunning Little Vixen, Friday, Mar. 12 at 8 p.m., both at the Kennedy Center Opera House. Seating prices are $80 (orchestra), $135 (box) $60 (tier 1) and $45 (tier 2).

For reservations call Tom Oliver, (202) 416-7851, and ask for NIH R&W seats.
NIDDK Funds Nine Centers Specializing in Kidney and Urinary Disorders

The NIDDK has announced the funding of nine multidisciplinary research centers specializing in the study of kidney and urinary tract disorders.

Seven of the centers have been designated George M. O’Brien Kidney and Urologic Research Centers, named for the late congressman from Illinois. The other two are Research Centers of Excellence in Pediatric Nephrology. Because disorders of the kidney and urinary tract may begin in childhood, the Pediatric Nephrology Centers and two of the O’Brien centers will concentrate on studies of abnormal development of the kidney and urinary tract in the human embryo and in children. All nine centers have been funded for 5 years.

Kidney and urinary tract disorders threaten the health, well-being and longevity of more than 13 million Americans and account for some $50 billion a year in estimated health care costs. The kidney and urological research centers program aims to reduce the major causes of these disorders through basic and clinical studies of their causes, treatment, and prevention.

The seven O’Brien centers are located in the schools of medicine at Northwestern University, Vanderbilt University, Emory University, University of Pennsylvania, University of Michigan, Washington University, and University of Virginia. The two Pediatric Nephrology Centers are located at Vanderbilt and the University of Iowa.

FOP Raffle Results Almost In

The results of the recent Fraternal Order of Police raffle have been announced, but the first-prize winner has yet to claim his $1,000 or trip to Cancun for two. A John Smith, holding ticket number 2233, won first prize but has not come forth as yet. Joan Wilentz won second place (color TV) and Tony Wood placed third (dinner for two at Le Vieux Logis Restaurant). NCI’s Frank Mahaney won the door prize at the hot dog sale. If the holder of ticket 2233 does not claim the prize by Feb. 28, there will be a second drawing for first place. For more information contact Jody Luke, 496-3211.
Gary Ellis To Head Office for Protection from Research Risks

The NIH Office for Protection from Research Risks (OPRR), which oversees programs to protect humans and animals involved in research, has a new director, Dr. Gary B. Ellis. His appointment marks an OPRR anniversary: 27 years ago this month, the Public Health Service first promulgated a policy on research with human subjects.

"Although there have been incidents along the way," Ellis said, "there has been a remarkable record of success in protecting those human subjects."

Ellis takes over OPRR at a time when the office's policies are well in place. Yet implementation of OPRR regulations and policy governing research with humans and animals at the hundreds of institutions nationwide that hold PHS awards worth more than $8 billion is an ongoing process. In addition, in 1991 a number of other federal agencies embraced the core of the HHS regulations for their research using humans.

"OPRR is committed to helping them implement the regulations," said Ellis. "We're sort of the senior partner, in terms of experience with the policies. We're housed at NIH, but we are available to give advice and offer interpretation to all the agencies in PHS and indeed, to all federal agencies."

Approximately 1,004 institutions currently receive $3.9 billion in PHS funds for human subjects research. Some 908 institutions receive PHS awards for animal research worth $4.2 billion. All institutions holding PHS awards must adhere to the same OPRR policies, no matter how large or small their funding.

"The federal government helps the institution manage its research projects involving humans, but we can't always know everything about each local situation. We negotiate written assurances that our regulations are being followed. We work in concert with the IRBs."

A native Clevelander, Ellis graduated from the University of Michigan. After receiving his doctorate in biological sciences in 1980 from Northwestern University, he undertook postdoctoral work at the Institute of Reproductive Biology at the University of Texas at Austin. He also worked as a senior policy analyst in health and life sciences at the congressional Office of Technology Assessment before joining the Institute of Medicine as director of its division of health promotion and disease prevention.

One aspect of Ellis's new position that has changed in the last 20 years or so is the close and highly publicized scrutiny by activists of federal research on humans and animals. Ellis said OPRR respects and responds to every inquiry as well as to all the media attention.

"We have been the object of intense interest," Ellis admitted. "We want to ensure that investigators are exercising the proper stewardship and are using the highest standards to conduct research on humans and animals. We would never question the sincerity of parties expressing concern. It seems that some dimension of every newsworthy development in biomedical research that you read or hear about falls within our purview. That makes our task challenging, exciting and sometimes very hard to do." — Carla Garnett

Management Intern Programs Reflect on 1992, Recruit for 1993

This has been a hectic but rewarding 6 months for the 1992 NIH management interns and presidential management interns.

The NIH Management Intern Program is a 1-year training program for individuals demonstrating a high potential for success in the administrative arena. Individuals spend a year rotating in career areas including grants, contracts, program planning, management, program and legislative analysis, OEO, budget, personnel and additional disciplines. Program graduates generally fill positions at the GS 5-9 levels in administrative fields.

The Presidential Management Intern (PMI) Program is a 2-year training program also in the field of administrative management. PMIs are recent master's degree graduates who must be nominated by their school dean and are selected as PMI finalists by the Office of Personnel Management. Like NIH management interns, PMIs rotate among the ICDs in management areas of interest. PMIs generally graduate at the GS-12 level. Both groups have completed assignments in a variety of locations.

Currently interns are working in budget, grants administration, contracts, planning and evaluation, legislative analysis, and general administration throughout NIH and SAMHSA. In addition, one PMI is on a Capitol Hill assignment with Sen. Alfonse D’Amato (R-N.Y.) and another is at the U.S. Agency for International Development. Graduates of both programs have gone on to serve as senior level managers at NIH and other federal agencies.

The NIH Management Intern Program is currently recruiting. Application packages for the 1993 class are being accepted through Mar. 1 at the NIH Training Center. Call 496-6211 for more information.

Members of this year's presidential and NIH management intern programs are (standing, from I) John G. Amspaugh (PMI), Pamela Boteler (MI), Laura Wilmott (MI), Elsysa Tran (PMI), Catherine Szilagyi (MI), Karen Peterson (PMI), Juliann DeStefano (PMI), Lydia Kendaw (MI), Carl Lucas (MI), Monika Naegeli (PMI); (seated, from I) Amy Hall (PMI), Susan Nadolny (PMI), Donna Carter (MI), Julie Allyn Kaneshiro (MI), Diane Dugard (PMI), and Joy Osborne (PMI).

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