A Fact of Modern Life?

NCI's Rosenberg Decrees Secrecy in Biomedicine

By Rich McManus

It's no secret that the free and open exchange of information that represents the noble ideal of scientific inquiry doesn't always exist in the real world—especially after the appearance of a Feb. 8 editorial in the New England Journal of Medicine by NCI's Dr. Steven A. Rosenberg.

Chief of the Surgery Branch and prominent scientifically as well as publicly (for his much-publicized service as surgeon to former President Ronald Reagan), Rosenberg charges, in the magazine's "Sounding Board" column, that progress in medical research is being compromised by an increasingly common and accepted practice of secrecy about methods and results.

"The complex legal arrangements that are often required before reagents are shared impedes scientists from acquiring the materials needed to perform their work," he writes. "These impediments...appear to be arising more frequently."

But others claim that secrecy in biomedical research may be a small enough price to pay when the government-industry partnerships that demand quietude (because of eventual opportunities for profitmaking) may yield breakthroughs and therapies otherwise unobtainable.

Rosenberg outlines the battlefront where business ethics collide with medical ethics, and gives each side its due, concluding that discussion can heighten awareness of this issue and laws can be written to protect intellectual property rights while allowing for free exchange of information and reagents.

His colleagues on campus who are familiar with the issue have been happy to be party at least to the discussion, if not the lawmaking.

Dr. Michael Gottesman, NIH deputy director for intramural research, agrees with Rosenberg that secrecy is harming the open atmosphere that ought to characterize scientific inquiry. "But the impact of secrecy generated by commercial interests in slowing down the exchange of information is countered to some extent by other..." (See SECRECY IN MEDICINE, Page 6)

NIH Record To Present NIH Director's Lecture

Dr. Eva J. Neer of Harvard Medical School, a biochemist who is internationally recognized for her contributions to the understanding of signal-transducing molecules, will present the NIH Director's Lecture on Wednesday, Apr. 3 at 3 p.m. in Masur Auditorium, Bldg. 10. The title of her talk is "Heterotrimeric G Proteins: Transmitters and Tuners for Membrane Signals."

The G proteins are heterotrimeric molecules, composed of alpha, beta, and gamma subunits, that convert signals from extracellular stimuli into intracellular responses. They are involved in modulating diverse and complex functions such as thought and cognition, blood pressure control, cell growth and differentiation, the senses of smell and sight, (See DIRECTOR'S LECTURE, Page 2)

Water Main Break Affects NIH, 5,000 Workers Excused

On Mar. 12, a major water main break involving a pipe 96-inches in diameter near the Washington Suburban Sanitary Commission’s pumping station in Potomac affected the water pressure throughout lower Montgomery County, including NIH buildings on and off campus. Typically, the water pressure at NIH is about 75 pounds per square inch (psi), but the break caused it to fall below 45 psi, a drop of more than 40 percent. In 1977, authorities recall, NIH was shut down for 2 days because of a similar loss of water supply to NIH.

This time the major concern for NIH was the threat the drop in pressure posed to the fire protection systems and the supply of usable water, especially in the Clinical Center and the Children’s Inn. Although NIH has some booster pumps in place to use in such situations, officials were forced to take action.

Progress Made on Worksite Exercise Options

This is the second in a series of articles describing initiatives made in response to the Employee Health Promotion Survey. The first article appeared in the Feb. 13 issue of the NIH Record and featured nutrition. The survey was undertaken in late 1993 by the NIH worksite health promotion action committee (WHPAC) to determine how NIH employees felt about their work environment and what steps could be taken to improve employee health.

Many employees enjoy walking, running, biking, or swimming for fitness. Perceived impediments to these activities are the need for more locker and shower facilities, bike racks, convenient exercise centers, and access to a swimming pool. The committee examined each of these concerns and tried to find solutions. Progress has been made in the following areas:

- **Showers and Locker Rooms**—Working with the Office of Research Services, WHPAC identified all the existing shower facilities in buildings occupied by NIH employees. Committee members checked each shower to ensure easy accessibility and good working order. A list was compiled of 26 showers that can be used by any interested exerciser. This list will be published in the spring issue of the NIH phone book, under a section labeled “Employee Health Promotion” and is available also through the fitness centers in Bldg. 31 and Rockledge, and the various visitor information centers around campus. Facilities that are accessible to people with disabilities (currently Rockledge is the only one since others were constructed before passage of the Americans with Disabilities Act) will be indicated on this and succeeding lists.

With the exception of the Natcher Bldg., for which the addition of showers is planned for August 1996, it is unlikely that the number of showers and lockers can be increased at this time due to space and budget constraints. Nevertheless, WHPAC (See WATER MAIN, Page 9) (See WORKSITE EXERCISE, Page 4)
and the constellation of "fight or flight" responses.

For more than 20 years, Neer has brought a biochemical and a molecular biological perspective to the study of G-proteins, the large family of signal-transducing molecules that link cell-surface receptors and intracellular effectors. In 1984, she and her colleagues discovered Go, a G-protein abundant in neural tissue. This discovery provided one of the first indications that the G-proteins comprise a large family of related proteins.

Neer also is recognized for her contribution to the understanding of the role of the G protein beta-gamma subunit in cell function. Most recently, she and her colleagues have conducted a detailed study of the structural features of the alpha and beta-gamma subunits to define the sites of their interaction. The studies of the beta subunit take on added importance because it is a member of a large family of proteins found in all eukaryotes that share repeating sequences and probably a common propeller-like structure. Information about the structure and function of one member of the family is likely to shed light on all.

Neer is currently investigating where and how the receptors and effectors bind to G proteins in vitro. Her laboratory is also exploring how G proteins work in cells and in intact animals. Says Neer, "If we can understand the role of the G protein system as the go-between in signal transduction and understand how the signal gets across—and particularly what keeps it specific—we may be able to modify particular pathways. This could eventually lead to the development of treatments for a wide variety of problems related to defects in information relay systems such as in heart disease, malignancy, or genetic diseases associated with G protein abnormalities."

Neer received the NIH Merit Award in 1989. In 1994, she was named chair of the board of scientific counselors of the Division of Intramural Research, NHLBI. She also has been honored by the American Society for Molecular Biology and Biochemistry, which named her chair of its publication committee in 1989.

For more information about the lecture, call 4-5595.
Risk Factor for Lupus Kidney Disease Identified in Blacks

Researchers supported by NIAMS have identified a gene associated with increased risk of lupus kidney disease in African Americans. Variations in this gene affect the ability of immune cells to remove potentially harmful molecules from the body. This finding is a significant step toward enabling doctors to predict who is at risk for lupus and its complications and to take steps to minimize that risk.

Systemic lupus erythematosus (SLE, or lupus) is an autoimmune disease that is three times more common in African Americans than in white Americans, and also tends to be more severe in African Americans.

"We found an inherited susceptibility factor that is important in determining the severity of disease in a population [African Americans] that gets more severe disease," said Dr. Jane E. Salmon of the Hospital for Special Surgery/New York Hospital, Cornell University Medical College, in New York City, who led the collaborative, multicenter research study.

Research indicates that lupus is caused by a complex interplay of genetic and environmental factors. The results provide clues to the cause of lupus, particularly lupus nephritis, the kidney disease that can be a serious complication of SLE and can lead to kidney failure.

Investigators studied 257 African Americans with lupus and 139 African Americans without the disease. They looked at a gene that controls production of proteins called Fc receptors, which help certain white blood cells capture and destroy potentially harmful molecules called immune complexes. The researchers found that, among African Americans with lupus, those with lupus nephritis had an increased likelihood of having the gene for a form of the Fc receptor that has a low efficiency for capturing immune complexes. Excessive buildup of immune complexes in the kidneys is known to be associated with lupus nephritis.

"Our results suggest that inheriting a low capacity for removing immune complexes plays a role in determining predisposition to lupus kidney disease," Salmon said. "By unraveling the causes of the disease we can begin to design better treatments, and predict those who are likely to get lupus nephritis and take steps to prevent it."

Ninety percent of people with lupus are women, and the disease most often strikes during the childbearing years. Researchers supported by NIAMS are working to identify other genes involved in determining susceptibility to lupus. They have evidence that multiple genes contribute to disease susceptibility, and that no single gene can by itself cause the disease.

The study was reported in the Mar. 1 issue of the Journal of Clinical Investigation.—Elia Ben-Ari

Growth Factor Gene Linked to Human Dwarfism

A study at NIDR has linked a mutation in a growth factor gene to a type of dwarfism that is characterized by abnormal development of the limbs and limb joints. The identification of the gene and its critical role in skeletal development could lead to new approaches for repairing cartilage and bone defects and reconstructing joints.

Scientists in the Bone Research Branch identified the structure of the human gene that carries the blueprint for a growth factor called cartilage-derived morphogenetic protein-1, or CDMP-1. The investigators discovered that a mutated version of the gene is present in individuals with a form of dwarfism known as Hunter-Thompson type chondrodysplasia. Affected individuals have shortened and misshaped bones in the lower arms and legs, with the most pronounced disturbances in the joints of the hands and feet. The fingers are very short and the toes are ball-shaped and functionless. The study results are reported in the March issue of Nature Genetics.

"The association of a CDMP-1 gene mutation with Hunter-Thompson chondrodysplasia provides direct evidence that this morphogenetic protein plays a key developmental role at sites of bone growth and joint formation," said Dr. Terrig Thomas, lead author on the paper.

Identification of the human gene opens the door for using recombinant DNA technology to produce CDMP-1 commercially and evaluate its potential for skeletal repair and joint reconstruction. Although the scientists still don’t know exactly how the growth factor functions, recent work by study director Dr. Frank Luyten demonstrated that a recombinant form of CDMP-1 led to the formation of cartilage and bone when implanted under the skin of rats.

The investigators determined the DNA sequence of the CDMP-1 gene and found an extra piece of DNA inserted into the gene of those affected with Hunter-Thompson chondrodysplasia. According to Luyten and Thomas, the mutation most likely results in a faulty protein that can’t carry out its role in the normal development of limbs and joints.

CDMP-1 is a growth regulator that is a member of the transforming growth factor-beta superfamily of proteins. Despite the fact that Hunter-Thompson chondrodysplasia is quite rare and has been documented only in a few families from isolated communities, this study is the first example of a human disorder attributable to a mutation in one of these proteins.—Wayne A. Little
has urged that all new construction and lease agreements include an evaluation of the availability of such facilities, with inclusion of such facilities in the plans if needed. Further, WHPAC is committed to providing input into the planning of all new buildings, additions and renovations (such as the proposed new Clinical Center addition) to see that these needs are addressed.

- **Bike Racks**—With encouragement and advice from the NIH Bike Club, ORS installed 90 new U-shaped bike racks on campus in 1995. Locations include Bldgs. 4, 8, 32, 41, 9A, 6, 31 and 45. Locations of the new racks in "weather protected" areas include MLP-7 and Bldg. 36. The new rack is preferred by NIH cyclists since it offers greater security for bicycles by accommodating any kind of lock or more than one lock. Each rack holds two bicycles, one on each side.

- **Walking/Jogging Paths**—Committee members mapped walking/jogging trails from the EFS/EPN and Rockledge buildings. (Health’s Angels, the NIH running club, had previously developed a map of routes from campus into Rock Creek Park.) For campus employees not wishing to wander too far, the Division of Safety has mapped Heart Walks around campus and inside certain campus buildings. Later this spring, look for red heart markers on the sidewalks between main NIH buildings for a self-guided 1-mile Heart Walk. All these maps will appear in the spring edition of the NIH phone book under "Worksites Health Promotion" and are available at the Bldg. 31 and Rockledge Fitness Centers, and NIH visitor centers.

- **Convenient Exercise Facilities**—The R&W operates three fitness centers conveniently located for many NIH employees: an aerobic center in Bldg. T39, where classes are offered during lunch and after work; a Fitness Center in Bldg. 31, which is open from 5:45 a.m. to 8:45 p.m. on weekdays and 9 a.m. to 3 p.m. on Saturdays; and the Rockledge Fitness Center, which is open from 7 a.m. to 7 p.m., Monday through Friday.

  In addition, plans are under consideration for a fitness center in the Natcher Bldg. and the proposed Clinical Research Center. WHPAC inquired about the feasibility of expanding the fitness center in Bldg. 31, enlarging the locker rooms and adding an aerobic dance area.

WHPAC member Paul Horton, director of the Division of Space and Facility Management, advised the committee that space is not immediately available but consideration will be given to this request as space is reallocated later. He said that in recognition of the limited amount of exercise space available on campus, ORS has approached various fitness clubs in the community about offering employees reduced corporate rates. Seven fitness clubs have agreed and ORS is planning an Exercise Fair to give employees an opportunity to learn more about these options.

- **Swimming Pool**—High costs and space requirements preclude a swimming pool on campus. A Ymca is located three blocks north of campus on Old Georgetown Rd. However, according to WHPAC member and general manager of the R&W, Randy Schools, the Y pool is very popular with NIH employees and members of the community, making it crowded at prime times. For employees located in the Executive Blvd. or Rockledge areas, the Montgomery Aquatics Center is the closest swimming facility.

WHPAC will continue to explore other ways to make it easier for NIH employees to improve their health and fitness. As always, it welcomes employees’ constructive comments and suggestions. Contact Susanne Strickland, fax number 480-9654, or email strickls@od31em1.od.nih.gov, or send mail to Federal Bldg., Rm. G10.

---

**NIH Breast Cancer Study Needs Jewish Participants**

NIH launched a study Feb. 26 among Jews in the greater Washington, D.C., area to see how frequently a specific alteration in BRCA1—a gene associated with breast cancer—occurs in the community and whether having the alteration is associated with an increased risk of cancer.

The Clinical Center is one of 16 testing centers in the Washington area. A wide range of volunteers—Jewish men and women, over the age of 21, with or without a personal or family history of cancer—are needed. Participation requires about 20 minutes. The NIH test center is open Monday through Friday. For more information, or to schedule an appointment, call (301) 251-4272.

Participants, on arrival at a test center, will be asked to provide a small "finger prick" blood sample and complete a brief medical questionnaire. The questionnaire concentrates on family history of cancer, including the type of cancer that developed in members of the family, and the approximate age of diagnosis. Blood samples will remain anonymous, and study participants will not receive individual results.
Students Learn Dangers of Spit Tobacco

Students at Norwood School in Bethesda learned about the dangers of using smokeless, or spit, tobacco during a recent presentation organized by the National Institute of Dental Research. Delivering the anti-spit tobacco message to the school's fourth, fifth, and sixth graders were NCI's Dr. Sherry Mills and Baltimore Orioles head trainer Richie Bancells.

Richie Bancells.

Mills, a program director in the Division of Cancer Prevention and Control, explained to students that spit tobacco contains nicotine and cancer-causing chemicals, she said, it is addictive, harmful, and not a safe alternative to cigarettes.

Using posters produced jointly by NIDR and NCI and an enlarged model of the mouth, Mills showed the children the types of changes in the mouth that can result from spit tobacco use. The youngsters, who were fascinated by the mouth lesions, learned what oral leukoplakia and oral cancer look like. They also watched a videotape produced by NCI and NIDR called Dangerous Game, which features major league baseball players discussing the negative consequences of spit tobacco use.

Bancells told the students about his past experience as a spit tobacco user, beginning with his boyhood in Kentucky. When he was growing up, he said, spit tobacco use was widespread among boys who played sports. Bancells continued to use spit tobacco after becoming a trainer for the Orioles. He didn’t use it during the off season, he said, but each year would resume the habit at the start of spring training. This was in part because of the easy availability of spit tobacco during baseball season, he explained. In the past, tobacco companies distributed free samples of spit tobacco to major league clubhouses during the season. Eventually Bancells quit using spit tobacco altogether, and has since been active in helping other major leaguers break or avoid the habit. Nearly all the ballplayers who use spit tobacco would like to quit, he said, but find it extremely difficult to break the addiction. The Norwood students were impressed when Bancells cited Cal Ripken as an example of a ballplayer who would never consider using spit tobacco.

NIH Manual Available Electronically

NIH Manual chapters are now available via the NIH Gopher and the NIH Home Page on the World Wide Web. This electronic format allows users to search the entire NIH Manual. Chapters can be printed and easily filed to a user’s personal computer for future reference, updating and additional searching.

The following information may be useful to potential users: Access via Gopher: select NIH Campus Information; NIH Manuals. Access via NIH Home Page: URL is http://www.nih.gov:80/science/campus/. For policy questions, contact either the issuing office listed for a particular chapter, or call the appropriate ICD contact identified in the gopher file, “About the NIH Manual.”

Kaiser Health Plan Day, Mar. 28

Kaiser Permanente Health Plan will be on the NIH campus Thursday, Mar. 28 to assist enrollees who have claims or enrollment problems or questions. A Kaiser representative will be available from 9:30 to 11:30 a.m. in Bldg. 31, Conf. Rm. 8 and from 1 to 3 p.m. in Bldg. 38, Conf. Rm. B.

No appointment is necessary. Assistance will be provided on a first-come, first-served basis. It is anticipated that Kaiser will be at NIH once each month hereafter.

Morgan To Speak at Executive Seminar Series, Apr. 10

The third seminar of the 1995-96 Executive Speakers Seminar Series, which focuses on contemporary trends in human resources management, will be held on Wednesday, Apr. 10 at 2 p.m. at the Natcher Bldg. main auditorium.

Calvin Morgan, management development administrator at Northeast Utilities, and a long-time organizational consultant and trainer, will speak on “Managing Cultural Diversity in Organizations.”

His seminar will focus on examining one’s knowledge and attitudes about diversity, reflection on the value of diversity, and heightening awareness of the need for diversity in the workplace.

An engaging speaker, Morgan has competed in the World Championship of Public Speaking, winning second place in 1987 and was elected to the Toastmasters International Hall of Fame. His varied background in business and human services, combined with his sense of humor and dedication to helping others, have won him praise from seminar participants.

No registration is required for the seminar. For more information, call Joyce Laplante, 2-3380.

Cancer Prevention Fellowship Program Accepts Applications

NCI is now accepting applications for its Cancer Prevention Fellowship Program, which trains people from a variety of health backgrounds in the field of cancer prevention and control.

The program provides for: master of public health training at accredited university programs; participation in a 6-week summer course beginning in July 1997; work with preceptors on cancer prevention/control projects; and brief field assignments.

Fellows—who must hold a medical degree or Ph.D. and be either U.S. citizens or resident aliens within 4 years of citizenship eligibility—will be accepted for up to 3 years of training, beginning July 1, 1997. Applications are due Sept. 1, 1996.

For more information, call Barbara Redding, 6-8640.
SECRECY IN MEDICINE
(Continued from Page 1)

developments such as increased speed of
electronic communications, faster
publishing schedules, and the blossoming of...powerful new techniques in the lab,
which make the production and trans-
mission of many types of results faster
than ever.”

Dr. Allen Spiegel, NIDDK scientific
director, says it’s time to drop the
naiveté about openness and start grap-
pling with the real forces at work.

“Anyone who has spent a number of
years—over 22 for me—in biomedical
research can attest that there is not now,
nor has there ever been in my experience
totally ‘free and open discussion of
research can attest that there is not now,
and the chances it offers to make a

fortune bring new pressure to bear on
research teams to be cagey.

“The difficulty is in providing the
appropriate incentive in the form of
potential profits to encourage research
without preventing the type of communi-
cation that would speed progress,”
Spiegel argues. “Anyone who has had a
CRADA (cooperative research and
development agreement—the standard
instrument governing industry-federal
collaboration) or other interaction with a
company has experienced a ‘secretive'
atmosphere.”

Gottesman says secrecy has, unfortu-
nately, become more common in areas
where intellectual property is at stake or
commercial development is a possibility.

“NIH as a community is more open
than some of the universities that I have
visited,” said Kleinman. “I have pretty
surely is and strongly

contributes to an unwillingness to share information and
reagents.”

“I don’t believe that pressure for prestige is any greater now than ever, but pressure for funding surely
is and strongly contributes to an unwillingness to share information and
reagents.”

Dr. Allen Spiegel

“Anyone who has spent a number of
years—in biomedical research can attest that there is not now,
nor has there ever been in my experience
totally ‘free and open discussion of
research can attest that there is not now,
and the chances it offers to make a

fortune bring new pressure to bear on
research teams to be cagey.

“The difficulty is in providing the
appropriate incentive in the form of
potential profits to encourage research
without preventing the type of communi-
cation that would speed progress,”
Spiegel argues. “Anyone who has had a
CRADA (cooperative research and
development agreement—the standard
instrument governing industry-federal
collaboration) or other interaction with a
company has experienced a ‘secretive'
atmosphere.”

Gottesman says secrecy has, unfortu-
nately, become more common in areas
where intellectual property is at stake or
commercial development is a possibility.

“NIH as a community is more open
than some of the universities that I have
visited,” said Kleinman. “I have pretty
surely is and strongly

contributes to an unwillingness to share information and
reagents.”

—Dr. Allen Spiegel
on the spirit of sharing, but says, "we should do our best to prevent this from happening. There are firm rules—imposed both by NIH and by the major journals—that if you receive government funding, or if you publish in the journals, you must be willing to share your information and reagents. Prior to publication, although there is no obligation to provide reagents, it is a strong part of the ethos of science to contribute to the exchange of ideas at scientific meetings."

NICHD’s Mayer notes, however, that, even after results have been published, there can still be a stinginess with materials. “The reality is that the mechanisms for distributing materials are not well developed. A small research group can be swamped by requests for material, and lose valuable research time physically distributing material.” None of the intramural scientists—with the exception of Rosenberg in his NEJM editorial—was particularly interested in citing examples from his or her own work where secrecy thwarted progress. Gottesman said his field of study—drug resistant tumor cells—is dominated, fortunately, by people who insist on sharing. “The scientists whom I hold in the highest regard understand the importance of sharing, and also the importance of crediting other scientists and respecting any privileged information with which they have been entrusted.”

Rosenberg’s article concludes with a call for all scientists to become aware of the issue. “There would be immediate improvement if scientists refused to keep information confidential and refused to sign any agreements for the transfer of information or reagents that included a requirement of confidentiality,” he maintains.

Says NIDDK’s Spiegel, "What is needed is development of a consensus among academic, government and industry scientists on how to reconcile the conflicting needs of open communication and the need to be profitable. Modifications of existing patent laws and other creative measures should be possible to address these conflicting needs.” To get reprints of Rosenberg’s editorial, write to him at Bldg. 10, Rm. 2B42 or send a fax to 2-1738.

### Paying for Clinical Trials

**NCI, Defense Department Launch Partnership**

One of the country’s largest employee health programs will pay for medical care received in National Cancer Institute-sponsored clinical trials as part of a new agreement between NCI and the Department of Defense. The alliance could become a model for other partnerships between the health insurance and medical research communities, said NCI director Dr. Richard Klausner.

The agreement is structured as a demonstration project that allows TRICARE/CHAMPUS, the DoD health program, to reimburse beneficiaries who participate in treatment trials.

“This partnership means that we will attempt to integrate a very large and important provider and payer system with [NCI’s] national clinical research enterprise,” said Klausner, who signed the interagency agreement on Mar. 5 along with Dr. Stephen Joseph, assistant secretary of defense for health affairs. “We really believe that this can be a model,” Klausner added, “a model that we need in this changing health care environment to make sure that our clinical research and clinical trials system remains viable.”

NCI has already begun to approach managed care organizations with similar proposals, according to Dr. Robert Wittes and Mary McCabe, who negotiated the agreement. The Department of Health and Human Services further intends to explore the possibility of a similar demonstration program under its Health Care Financing Administration, said Dr. Philip Lee, assistant secretary for health, who spoke at the signing ceremony. HCFA administers Medicare and Medicaid.

TRICARE/CHAMPUS is rapidly moving toward a managed care system, Joseph said. It has about 8.3 million beneficiaries, about 12,000 of whom will develop cancer each year. The demonstration program will benefit these patients by providing broader access to state-of-the-art therapy. It will also benefit society at large by showing that managed care organizations can be active partners in research. “My sense is that...the most important thing of all [is] the demonstration that it is a responsibility of managed care systems to some extent, at some level, to contribute to the advancement of knowledge,” Joseph noted.

The agreement covers phase II and phase III treatment trials performed at

### Questions About Allergy, Asthma? Ask an Expert

NIH and the Washington Hospital Center’s institute of allergy and asthma are hosting question-and-answer sessions for patients suffering from sinusitis, allergy and asthma. Experts will discuss the latest in prevention, treatment and research. The sessions are Mar. 27, 7-9 p.m. in the Natcher Bldg. auditorium, and Mar. 30, 10 a.m.-noon at the University of Maryland’s inn and conference center in College Park. Call for reservations, (202) 877-8197.

### Problems with Alcohol?

NIAAA is seeking both actively drinking and recovering alcoholics for studies. If you are 18 or older, have no significant medical problems, no current drug use (except alcohol), and take no medications, you may qualify for free treatment. Call 6-1993.

### Healthy Adults Sought

NIMH is looking for healthy adults to participate in brain imaging studies of potential antidepressants. Volunteers will be paid. If interested, call 2-4926 and leave a message for Libby Jolkovsky. Include day and evening numbers.
Charles M. Goldstein Retires After 21 Years at NLM

Charles M. Goldstein, chief of the Information Technology Branch in NLM’s Lister Hill National Center for Biomedical Communications, recently retired after 21 years at the library.

Formerly chief of the Scientific Computing Branch at NASA’s Lewis Research Center, he joined NLM in 1974, becoming responsible for establishing applied R&D programs in the areas of library and information science and computer-based educational technology.

Goldstein directed the establishment of the NLM Learning Resources Laboratory, which provided a “window to the world” of computer-based educational technology and was the forerunner of NLM’s Learning Center for Interactive Technology.

Most recently, he led the team that developed, under the auspices of the Agency for Health Care Policy and Research, the Full-Text Retrieval System (FTRS) that supports HSTAT (Health Services/Technology Assessment Text). HSTAT is an initial step toward more user-friendly, integrated access to the full text of clinical practice guidelines, as well as other government publications, in the context of a Medline search or a computer-based patient record system.

Among other major program efforts under his direction were the information retrieval experiment, which later became FTRS; the ILS (Integrated Library System); the Advanced Terminal System for computer-based education; the Hepatitis Knowledge Base Delivery System; In Process Control System and Retrospective Data Entry System for library operations; and projects involving the encoding of digital information on optical videodiscs.

During his tenure at NLM, Goldstein received numerous awards for his leadership as well as for his pioneering research and development activities. He was presented with the NIH Director’s Award “for leadership of a nationally recognized program to explore and develop innovative computer applications for libraries and computer-based education.” He received the NLM Board of Regents Award and the Medical Library Association’s Rogers Award for his work on ILS. He was also corecipient of the Rogers Award for his work on the Online Mendelian Inheritance in Man project—an interdisciplinary model involving academic scholars, librarians, and publishers in the application of new technical tools to knowledge management.

His many friends and coworkers honored Goldstein at a recent dinner and wished him well in his retirement.

NIGMS Grantee Hartwell Receives Horwitz Prize

Dr. Leland H. Hartwell, an NIGMS grantee for more than 30 years, has been named the recipient of Columbia University’s 1995 Louisa Gross Horwitz Prize. The award is presented annually for outstanding research in biology or biochemistry.

Hartwell is a professor of genetics at the University of Washington in Seattle. Through his research, he has made fundamental contributions to understanding cell division and replication, and how these processes are altered in cancer.

Hartwell has studied a simple, one-celled organism, brewer’s yeast, to tackle the difficult problem of how a cell is able to copy its genetic information faithfully and divide in two without transmitting potentially lethal errors in its genetic blueprints.

Hartwell has documented the existence of cell cycle checkpoints, control mechanisms in which incomplete early events in the cycle generate signals that inhibit later events. He has also studied how defects in cellular DNA disrupt the cell cycle, sometimes leading to malignancy, and how restoration of cell cycle controls can help prevent cancer.

The Horwitz Prize, which carries an award of $22,000, is considered a Nobel Prize predictor. Since it was first presented in 1967, more than half of its recipients have gone on to win Nobel Prizes.
Results of National Oral Health Survey Released

Results from the first phase of a nationwide survey of oral health in children and adults have been released by NIDR, giving a snapshot of the nation’s dental health. The survey provides the most reliable estimates yet of dental disease in several population subgroups, including children under age 5, adults age 60 and over, and Black Americans and Mexican Americans—the two largest minority groups in the U.S.

What emerges from the first 3 years, or phase I, of the 1988-94 National Health and Nutrition Examination Survey—called NHANES III—is a more complete picture of the dental treatment needs of children and adults from Mexican American, non-Hispanic Black, and non-Hispanic white backgrounds.

“While there has been remarkable improvement in the nation’s dental health over the past couple of decades, the survey findings point to many challenges for the American public and the dental community,” said NIDR director Dr. Harold Slavkin. “For example, it appears that caries in permanent teeth continues to decline among school-age children, and that’s good news, but the other side of the coin is that 45 percent of children and adolescents still suffer from this preventable infectious disease.”

NHANES III dental examiners found no caries, or tooth decay, in the permanent teeth of 55 percent of children and adolescents ages 5 to 17. Only a couple years earlier, a 1986-87 survey had found that 50 percent of 5 to 17-year-olds were caries-free in their permanent teeth. The survey showed that Black children enjoyed the highest caries-free rate in permanent teeth—61 percent, followed by white children at 55 percent and Mexican American children at 51 percent.

Unfortunately, tooth decay continues to affect millions of U.S. children and adolescents, with the majority experiencing caries by their late teens.

Untreated decay in primary teeth was a major problem uncovered by the survey. Nearly half (47 percent) of the caries in the primary teeth of 2 to 9-year-olds had not been treated. Mexican American children had the highest percentage of untreated decay—62 percent, followed by 59 percent for Black children and 41 percent for white children.

Tooth decay is nearly universal among American adults. The survey found that 94 percent of people age 18 and older had either untreated decay or fillings in the crowns of their teeth. On average, American adults had 22 decayed, missing, or filled coronal surfaces (out of 128 possible surfaces). Women had more caries than men (24 decayed, missing, or filled surfaces, versus 21 in men), but they also had slightly less untreated decay.

The survey also showed that 10 percent of adults are missing all their teeth. The remaining 90 percent have, on average, 23.5 teeth. Almost a third of adults have all 28 teeth. Gender did not play a role in tooth loss, the survey found, but age and race-ethnicity did. Virtually none of the adults ages 18 to 24 were toothless, but 44 percent of those age 75 and older were missing all their teeth.

Removable complete or partial dentures are a fact of life for millions of Americans, the survey showed. About 20 percent of adults ages 18 to 74 wore some type of removable denture, with use more common in women than men. As expected, denture use increased with age; half of Americans ages 55 and older wore a partial or complete denture. A high percentage of denture wearers—60 percent—reported problems with their appliances.

More than 40 percent of adults who had teeth—or almost 62 million Americans—had at least one tooth or tooth space that might benefit from treatment. No differences were found by gender or race, but problems did increase with age.

Overall, women had better periodontal health than men.

The survey found that 25 percent of Americans ages 6 to 50 had sustained some sort of injury to the incisors—the eight front teeth. The most common injury was a chipped tooth, and trauma was more common in males than in females. One-fourth of children and adults ages 8 to 50 had perfect alignment of the front teeth.
You can sit down to discuss a problem and in 3 microseconds get 26 ideas you never knew existed," is how Perry Plesco, chief of DCRT’s Computing Facilities Branch, describes him. Ask DCRT staff about their director, and you’ll hear about his intensity, good humor, and accessibility to staff. You’re also likely to hear about his knowledge of computers, especially in scientific applications. But what impresses people most is his quick mind and tireless energy: “David can gather information from many different sources and synthesize it into a workable approach in an amazingly short time,” says Dave Songco, DCRT assistant director. “In terms of raw intellect, I’ve never met anybody like him. He can be working on one idea in the foreground while crunching another in the background. He redefines the word ‘dynamic.’ He never stops.”

“He’s a constant source of creative ideas, but more than that, he’s a fair person with a genuine concern for people and a real commitment to equal opportunities for everyone,” says Gloria Richardson, DCRT’s EEO officer.

On Apr. 1, DCRT director Dr. David Rodbard, whose clinical and basic research career spanned two institutes and the study of endocrinology, mathematics, statistics, and computer science, retires after 30 years of service to NIH. He will join the Association of American Medical Colleges in Washington, D.C., as director of information resources outreach and liaison activities.

During his 5-year tenure as director, Rodbard guided DCRT through a period of reorganization, streamlining functions and introducing peer review for every lab, branch, and program in the division. “Due to rapid advances in computing technology and in computational biology, we’ve changed more in the past 5 years than in the previous 25,” he says. “We moved away from the ‘glass house’—the data center as the main focus of the division—to a diversified, multi-platform, open-system, network-based computing environment.”

As part of the reorganization, DCRT introduced a central point of contact for customer assistance, so anyone at NIH can find quick help for a computer problem by calling 4-DCRT or by emailing 4dcrt@nih.gov. Also created were the Network Systems Branch, which develops and operates the fiberoptic backbone connecting NIH’s 300 local area networks, and two new research laboratories—the Computational Bioscience and Engineering Laboratory and the Laboratory of Structural Biology.

Rodbard takes pride in DCRT’s scientific program, recognized for its many achievements in molecular modeling, image processing, and the application of highly parallel computing to a variety of biomedical research problems such as the prediction of protein folding. Through its laboratories and services, including the Scientific Computing Resource Center and the newly created Center for Molecular Modeling, the division also assists NIH scientists with the computational aspects of their research.

Change is a theme Rodbard often returns to in conversation and one amply reflected in his own career. He came to NIH as a clinical associate in NCI’s Endocrinology Branch, where he “was fortunate to have as mentors two extraordinary physician-scientists, the late Dr. Mortimer Lipsett and the late Dr. Griff T. Ross.” At NCI, and later NICHD, he treated patients with choriocarcinoma and other endocrine cancers. He quickly saw the potential of computer technology for his own research and began a longstanding collaboration with DCRT as he developed computer programs for data processing and quality control of radioimmunoassays for hormones and tumor markers. He also developed programs for bioassay and to estimate the molecular size of proteins and nucleic acids using polyacrylamide gel electrophoresis. Thousands of copies of the programs were distributed worldwide, and the methods developed by Rodbard and coworkers remain the industry standard today. Together with Drs. Peter Munson and André DeLean, Rodbard then developed the ALLFIT program to analyze families of smooth sigmoidal dose response curves: this method is now standard for pharmacology, physiology, and ligand binding. Later, the three developed the LIGAND program to analyze receptor binding: the Analytical Biochemistry paper became a “citation classic,” with more than 10,000 citations to date.

In 1971, Rodbard joined NICHD’s Endocrinology and Reproduction Research Branch, where his research focused on characterizing receptors for drugs and hormones. He became head of the biophysical endocrinology section and later was appointed chief of NICHD’s Laboratory of Theoretical and Physical Biology and head of its theoretical biology section.

“When I came to NIH in 1966, computers were used by about 2 percent of NIH staff. Now, everyone uses them,” he said. “Everything we order, write, publish and analyze is done with computers. They’re indispensable.”

Computers are simplifying life at NIH in other ways. Electronic commerce—purchasing supplies over the Internet using electronic catalogs—will soon enable labs to get materials such as chemical reagents, cell lines, and other supplies faster and easier. “DCRT has been supporting this process, now being tested in several pilot programs,” said Rodbard. “We’re also looking at ways to provide software configuration and asset management so software can be distributed to 20,000 desktop machines throughout NIH from a central source.”

He concludes, “To stay at the cutting edge, NIH needs a group of dedicated professionals with relevant expertise to provide leadership and coordination. NIH needs a strong DCRT.”

Blue Cross/Blue Shield Day

Blue Cross/Blue Shield of the National Capital Area will be on the NIH campus Thursday, Apr. 4 to assist enrollees who have claims or enrollment problems. A representative will be available from 10 a.m. to 2 p.m. that day in Bldg. 31, Conf. Rm. 9, armed with a laptop computer to access directly the enrollee’s records at company headquarters.

No appointment is necessary. Assistance will be provided on a first-come, first-served basis. It is expected that Blue Cross/Blue Shield will schedule more service days in the future.

Treatment for Panic Attacks

People currently experiencing panic attacks may be eligible for a free treatment outcome study evaluating nondrug treatments for panic and anxiety. For more information call Jack Trakowski at the USUHS department of medical and clinical psychology, (301) 295-3651.
NIGMS Retiree Carl Kuether Dies

Dr. Carl A. Kuether, a former NIGMS program director, died on Feb. 21 after suffering a heart attack. He was 80 years old.

He retired in 1994 after 32 years of government service, 28 of which he spent with NIGMS. During his career there, Kuether administered grants in the areas of natural products chemistry, synthetic organic chemistry, chemical reactions and mechanisms, and medicinal chemistry.

Dr. Michael Rogers, acting director of the NIGMS Division of Pharmacology, Physiology, and Biological Chemistry, said Kuether, “managed the chemistry grants with a profound appreciation for the importance of chemistry as a health-relevant science, and with an unwavering commitment to fund the best science available.

“He held the respect and appreciation of even the most famous organic chemists during his tenure, including a number of Nobel laureates,” Rogers said.

Prior to joining NIGMS, Kuether worked for 3 years at the National Science Foundation. He had also been a faculty member at Case Western Reserve University in Cleveland; the University of Washington in Seattle; and Youngstown State University in Ohio; and he worked as a senior research biochemist at Eli Lilly and Co.

A native of Ripon, Wis., Kuether received a B.A. in chemistry from Miami University in Oxford, Ohio; an M.S. in physiological chemistry from Wayne State University in Detroit; and a Ph.D. in biochemistry from George Washington University.

He was a member of the American Chemical Society, the American Association for the Advancement of Science, and Sigma Xi.

Upon retiring, Kuether moved to Madison, Conn., with his wife, Edith Fisk Lyman Kuether. Among his activities was work as a volunteer at the Scranton Library in Madison.

In addition to his wife, he is survived by a son, Christian Lyman Kuether; a daughter, Elizabeth Kuether Piner; five grandchildren, and a great-grandchild.

Memorial contributions may be made to the Scranton Library, c/o Heather Ciosek, Madison, CT 06443.

NICHD's Dolores Patanelli Mourned

Dr. Dolores J. Patanelli, a reproductive physiologist with the National Institute of Child Health and Human Development, died of breast cancer Feb. 25 at her home in Potomac. She had retired from NICHD in December 1992.

She joined the institute in 1972 as a scientist manager with the Contraceptive Development Branch. She was the project officer for clinical studies that led to the Food and Drug Administration’s approval of the Today contraceptive sponge and the cervical cap. She conducted research into potential compounds for the control of fertility in men and women, and she initiated studies of condoms made from polyurethane polymers.

Patanelli started her career in contraceptive development and research at Merck & Co. in New Jersey in 1963 after receiving a doctorate in reproductive endocrinology from New York University. Earlier, she received a master’s degree in the same field and a bachelor’s degree from NYU.

Survivors include two brothers, Robert W. Patanelli of South Belmar, N.J., and Norman O. Patanelli of Hollywood, Fla. Contributions in her memory may be sent to the Children’s Inn at NIH.

23rd Annual AALAS Lab Animal Seminar

The 23rd annual National Capital Area Branch AALAS seminar will be held at the Turf Valley Hotel & Country Club in Ellicott City, Md., on Sept. 17-18. The seminar is entitled, “Laboratory Animal Science and Chemistry—Reactions and Solutions.” For more information, call Bruce Kennedy, 2-6731, or Charlie Kammer, (410) 529-4762.
Marshall To Deliver 9th Ehrlich Lecture

Dr. Barry James Marshall, 1995 recipient of the Lasker Clinical Research Award, will deliver the ninth Paul Ehrlich Lecture on Wednesday, Apr. 17 at 4 p.m. in Masur Auditorium, Bldg. 10. Titled "New Magic Bullets in the Fight Against Gastritis," his talk will describe the discovery of a new microorganism Helicobacter pylori as a cause or contributing factor in gastritis, gastric and duodenal ulcers and gastric cancer, thus expanding on NIH’s 1994 consensus conference on the topic. The conference established guidelines for the treatment of nonautoimmune peptic ulcers on a global basis. A professor in the department of internal medicine at the University of Virginia, Marshall will be introduced by NIDDK scientist emeritus Dr. Bernhard Witkop.

The distinguished lecture series honors Ehrlich, a pioneer in and founder of modern hematology, clinical biochemistry and molecular immunology. His “side chain theory” was the beginning of the “receptor” concept.

“He put chemotherapy on the map with his ‘magic bullet’ or arsphenamine, the first cure for syphilis in 1908,” commented Witkop. “Ehrlich’s ideas were picked up in 1902 by Reid Hunt (1870-1948), the first chief of the Division of Pharmacology of the Hygienic Laboratory, NIH’s precursor. Hunt had recently returned from a stay in Ehrlich’s lab. The Ehrlich legacy was carried on by Carl Voegtlin, his colleague Sanford Rosenthal and many others.”

Ehrlich is further honored by the new German (200 DM) banknote that carries his portrait and six illustrations taken from a contribution to the 1981 Nobel symposium by Witkop.

Hyperactive Girls Needed

The Child Psychiatry Branch, NIMH, is seeking girls between ages 6-12 who have attention-deficit hyperactivity disorder (ADHD) for a treatment study. Contact Wendy Sharp, 6-0851.

EAP Holds Video Series

In April, the NIH Employee Assistance Program (EAP) will continue its "Tuesdays at the Little Theater" video workshop series on work, career, and personal growth. The next topic will be “Interpersonal Skills in a Team-Oriented Workplace.”

The workshops employ a two-part approach. At each session, an expert speaker’s videotape is shown first. Counselors from EAP then lead a group discussion about the topic. Topics address typical workplace issues faced by NIH employees.

The lunch-time, drop-in format is planned to make attendance simple. The series is free, open to all employees, and no registration is required. The workshops are all held from noon to 1 p.m. in the Bldg. 10 Visitor Information Center’s Little Theater. For more information, call 6-3164.

"Interpersonal Skills in a Team-Oriented Workplace" will be held on the following Tuesdays: Apr. 2, Apr. 9, Apr. 16 and Apr. 23.

Wednesday Afternoon Lecture

The spring schedule of Wednesday Afternoon Lectures includes a visit on Apr. 10 at 3 p.m. in Masur Auditorium, Bldg. 10, by NASA astronaut Dr. Daniel T. Barry. He will speak on “Space Flight: A Physician-Scientist’s Perspective,” hosted by NHLBI’s Dr. Ed Korn.

For more information or reasonable accommodation, call Hilda Madine, 4-5595.

Parenting Seminars Planned

The EEO advisory committee at NICHD is sponsoring a lunch-time seminar series that will deal with practical parenting skills. The series will be presented by Linda Jessup, executive director of the Parent Encouragement Program, Inc. The series is open to all NIH employees and will consist of three sessions, each lasting from 11:30 a.m. to 1 p.m. Participants will be selected on a first-come, first-served basis. Call Mary Plummer, 6-1696 or email Kathy Jones, joneskh01.nichd.nih.gov, to make a reservation.

The schedule is as follows:

Apr. 3, “Single Parenting—What You Need To Know,” 6100 Bldg., 5th floor Conf. Rm. Single parents often emphasize the single instead of the parenting and feel overwhelmed by the task of childrearing. Learn ways to bolster your family’s emotional health and create a sense of teamwork and camaraderie while steering clear of the most damaging pitfalls of separation and divorce.

Apr. 10, “Raising ‘I Can’ Kids,” Bldg. 31, Conf. Rm. 2A52 A child’s "I Can Quota" is a more important indicator of being able to thrive in life than the traditional IQ.

Apr. 17, "Raising Children for Success in Life," EPN, Conf. Rm. H Learn how to equip young people with the six characteristics most crucial to thriving in today’s world.