Indefatigable Investigator

Protein Chemist Saroff Honored By Colleagues

By Anne Barber

Turning 75 years old is just another milestone in the life of Dr. Harry A. Saroff, scientist emeritus working in NIDDK's Laboratory of Biochemical Pharmacology. To help celebrate this occasion, friends and colleagues held a symposium in his honor, Mar. 8, on "The Physical Chemistry of Proteins: 75 Years of Research."

"This symposium was held to honor Saroff for his long-term commitment to excellence in basic science," said Dr. Allen P. Minton, a senior investigator in the same laboratory. "Harry has made numerous contributions to our knowledge of the physical-chemical properties of proteins," he said. "In fact, sometimes his contributions were so original that they were not fully appreciated until years later."

Speakers included Dr. John T. Edsall, emeritus professor at Harvard University, who taught Saroff when he attended Harvard in 1947 as a research fellow; Dr. Harold A. Scheraga, Cornell University; Dr. Robert F. Steiner, University of Maryland; and Dr. Irving M. Klotz, University of Illinois. Dr. Jesse Roth, director of intramural research for

(See SAROFF, Page 4)

Survey Finds Low Use Of Dental Sealants

By Carla Garnett

Only 7.6 percent of American schoolchildren have dental sealants on their teeth, according to survey results announced by the National Institute of Dental Research at the annual meeting of the American Association for Dental Research.

The survey of almost 40,000 schoolchildren was conducted during the 1986–87 school year. Dentists trained by the institute performed oral examinations on children ages 5 to 17 at schools throughout the United States. The dentists recorded a number of oral conditions, including sealant usage and tooth decay. The sample population was selected to represent the approximately 43 million schoolchildren in the country.

Dental sealants are thin plastic films painted on the chewing surfaces of molars and premolars (the teeth directly in front of molars). Sealants were developed through dental research in the 1950's and 1960's, and first became available commercially in the early 1970's. Since then, researchers have continued to refine application methods and sealant

(See SEALANT, Page 2)
Sealant

(Continued from Page 1)

materials.

"I think it's safe to say we're surprised by the findings. We'd like to see a much higher use of dental sealants," said Dr. Preston A. Littleton, Jr., deputy director of the institute. "A quarter century of research has found them to be completely safe, highly effective and very economical in preventing tooth decay."

According to Littleton, the chewing surfaces of children's teeth are the most susceptible to decay and the least benefited by fluorides. The survey found that two-thirds of all cavities now occur in this vulnerable area of the tooth, where the pits and fissures trap food particles and bacteria, which eventually fuel the decay process. "By combining the use of sealants and fluorides, tooth decay could be virtually eliminated," Littleton added.

Sealants, which can be clear in color or tinted, are painted onto molars much the same way that nail polish is applied to fingernails. Because sealants prevent decay by the physical barrier they create rather than by a chemical reaction, the decay protection is determined by the sealant's ability to adhere to the tooth. As long as the sealant remains intact, decay will not develop beneath it. Sealants last as long as 10 years.

Not only do sealants protect healthy teeth, but research has shown that they arrest decay when placed on top of a cavity early in development by sealing off the supply of nutrients to the cavity.

"This is a totally pain free, preventative measure that is extremely effective. Parents all over the country should consider the benefits of sealants for their children," Littleton said.

According to the American Dental Association's most recent data (1985), the cost of applying a sealant to one tooth is approximately $10 to $15.

In 1983, insurance coverage for this procedure was sparse and inconsistent. Since that time, however, a growing number of insurance companies have begun to reimburse for applying sealants, making it more affordable.

Scientists Judge Fair

Five scientists from NIH were among the judges of the fifth annual Science Fair at Holy Cross Elementary School recently.

Dr. Anthony Carter, Barbara Detrick, Ralph Helmsen, John Hooks and Vijay Singh volunteered to serve on a 17-judge panel that evaluated the projects and questioned the student scientists. Winners will enter their projects in a competition at the Montgomery County Fair.

New Computer Consulting Service

The NIH Computer Center, which has provided computer services to the NIH community for more than 20 years, now has staff members available for one-to-one and small group consulting appointments. This provides for an open discussion about the role of computers in the office.

The new consulting appointments are a great opportunity to discuss how to get started using computers to automate essential applications. For example, common areas of interest are connecting small computers to the Computer Center's mainframes, linking Local Area Networks (LANs) with the mainframes, and using the Bitnet international electronic mail network. The role of the Computer Center's consultants in these appointments is not to make decisions or design systems, but rather to provide the advice and expertise that enables computer users to make informed choices.

When requesting a consulting appointment, computer users will be asked for some information about the scope and purpose of the computer application to be discussed. In this way, the Computer Center staff members whose expertise most closely relates to a specific area of interest can prepare for the consultation. When necessary, the Computer Center staff members will recommend other groups or information resources that can more specifically address the technologies required for a given application.

For more information about the NIH Computer Center's consulting appointments, call 496-2339. As with all Computer Center consulting services, such as the Pal Unit's telephone consulting and the Training Unit's classroom courses and tutorial consulting, there is no charge for this new service.

Capitol Hill Walking Tour

Join R&W on an enlightening tour of Washington's oldest residential community. Here lived our wealthiest residents; and in the alleys, our most impoverished slum dwellers. Part of the joy of being on the hill comes from the access of nearby amenities: the Capitol, Library of Congress, Supreme Court, the Folger, and the oldest ongoing farmer's market.

Tour date is Saturday, Apr. 8, from 10 to 11:30 a.m. We will meet at 9:55 a.m. on the corner of 1st St. and East Capitol St. (in front of the Capitol Building grounds). Cost for the tour, led by Jeanne M. Fogle, a local historian, is $6.50. Sign up today at the R&W Activities Desk in Bldg. 31, 496-4600.
Lipman Heads New Biotechnology Information Center

Dr. David J. Lipman, a former research scientist in NIDDK's Mathematical Research Branch, has been named the first director of the new National Center for Biotechnology Information at NLM.

He was introduced at a reception at the Capitol last month sponsored by the Friends of the National Library of Medicine and attended by Rep. Claude Pepper of Florida, who helped draft legislation creating the center.

"I regard this as one of the monumental achievements of the Congress and the country," Pepper said. "And I think it has immeasurable hope and incalculable consequence for our future."

A new division within NLM, the center, funded at $8 million in its first year, has four basic responsibilities, largely in support of the NIH-led human genome mapping and sequencing initiative:

To create automated systems for knowledge about genes, to discover advanced ways to handle the explosion of new knowledge about genes, to enable workers in the field to use the new systems developed and to coordinate worldwide efforts to gather biotechnology information.

"The investigation of the workings of the human hereditary system is certainly the most exciting scientific enterprise of the century," said Dr. Donald A.B. Lindberg, NLM director. "And it's a proud thing for the National Library of Medicine to be the information repository for the results that will come from that research."

Added Pepper, "Research on the human gene is one of the most exciting frontiers in medicine at this time, but the rapidly growing body of information is scattered and unwieldy. This center will link existing biotechnology databases and make information available for worldwide dissemination. It will prevent duplication of research and therefore bring more frequent and faster breakthroughs."

Center director Lipman came to NIH in 1981 as a medical staff fellow and has established himself as a leader in the field of biotechnology information. His most important work has centered on the development of protein sequence databases. His methods are widely used and led to the discovery that oncogene products are related to protein growth factors.

"Not only will the center serve as a repository for biotechnology information," he said, "but I am confident that the new knowledge-handling systems we design will themselves make a significant contribution to furthering research in this crucial field."

Although new types of hardware will probably be developed, Lipman emphasized that "one of the real focuses in the center is brainware. We are going to try to bring to the library experts in a variety of areas and achieve a critical mass of brainware that we can focus on problems and come up with solutions which don't necessarily mean more computers."

Lipman sits on the advisory board of Genbank and has written and coauthored many influential articles on various aspects of molecular biology and biosequence information. He has a bachelor's degree in biology with honors from Brown University and earned a degree in medicine from the State University of New York at Buffalo. He did his internship in internal medicine at the University of Arizona at Tucson.

Health Benefits Available For Temporary Employees

The Federal Employees Health Benefits Amendments Act of 1988 permits certain temporary employees, who were previously excluded from enrollment, to enroll in the Federal Employees Health Benefits (FEHB) Program. To implement this new provision, which is effective Mar. 14, a special open enrollment period will be held from Mar. 14 to Apr. 14.

Temporary employees who were previously excluded from enrollment and have completed 1 year of current continuous employment, excluding any breaks in service of 5 days or less as of Mar. 14, may register to enroll during the open enrollment period. Personnel offices will be notifying those employees who appear to be eligible to enroll.

Temporary employees who enroll in the FEHB program will have the full premium withheld from their pay. If you think you meet the eligibility requirements and are interested in enrolling in the FEHB program, you should obtain the 1989 Enrollment Information Guide and Plan Comparison Chart for Temporary Employees, RI 70-8, and a Health Benefits Registration Form, SF-2809, from your personnel office.
SAROFF
(Continued from Page 1)

NIDDK and Minton presented the introductory remarks.

Saroff came to work at NIDDK 40 years ago as a research chemist. His primary interest has remained protein chemistry since the 1940's.

"I stayed here because I consider this a good place to work. I could have moved out at any time," he says.

Saroff’s overall contribution in the field of protein chemistry has been to increase the understanding of the interaction of proteins and other molecules and to provide a more thorough analysis of the binding process.

"I also explore some of the statistics involved in the sequence of amino acids in proteins. This is important in evaluating data in the binding of receptors to cells and the processes which trigger and control certain chemical reactions of physiological importance," Saroff said.

Minton, who came to work for Saroff as a postdoctoral fellow in 1970 when Saroff was chief of the Laboratory of Biophysical Chemistry, says, "Harry is quite a unique and modest person. He is so demanding of himself and others with respect to the quality of work.

"Nobody reviews a paper like Harry, and nobody is as critical of his own work as Harry."

Saroff was one of the first NIH scientists to join the Foundation for Advanced Education in the Sciences (FAES) and taught there for more than 30 years. He also taught protein chemistry as an adjunct professor at George-town University during the 1960's.

Molecular models of hemoglobin and the alpha helix hang from the ceiling in Saroff’s lab in Bldg. 8; he uses them as visual aids in his teaching. While no longer teaching at the FAES, he continues to give regular seminars for the different NIDDK laboratories.

On teaching at FAES, Saroff says, "The Department of Agriculture used to send a couple of students to my course every year. One year, I received a phone call from one of the Agriculture lab chiefs saying, 'Harry, you will have to do something about your course. My whole group spends the entire week doing your problems and not the work they are supposed to be doing.'"

"Dr. Saroff is indefatigable in the pursuit of protein structure, both physical and mathematical, and in every other way," says Dr. Joseph E. Rall, NIH deputy director for intramural research and longtime friend and colleague. "He was also a teacher to anyone who would listen, even from the early days, on how to use computers effectively in research."

Saroff’s contributions have involved more than just research and teaching. He has also served on many NIH committees and was a pioneer in applying computers to protein analyses and mathematical modeling.

Saroff retired from the Public Health Service Commissioned Corps 11 years ago as a scientist director. He became a scientist emeritus and special expert for the Laboratory of Biochemistry Pharmacology, NIDDK and continues in that post.

Dr. Harry A. Saroff

"I spend about the same amount of time working in the lab as I used to. I still work at home, but so does everyone else," Saroff says.

He continues to write and publish on an average of a paper a year. "Since I don’t have administrative duties anymore, this is fun."

"I feel part of the philosophy as we get older should be that we go back and behave more like a postdoctoral fellow—working, but without the direct supervision of a boss," he continued. "We can pick up problems that do not necessarily have to pan out as successful work. We can work on speculative problems."

Regarding his honorary symposium, Saroff says, "The way I look at it, these people have contributed more than I have. I’ve been a rather modest contributor. Edsall was my role model and the other speakers are my colleagues."

Born in New York City, Saroff received his B.S., M.S., and Ph.D. degrees from the Rensselaer Polytechnic Institute in Troy, N.Y. He attended Harvard University after his military service; before joining NIDDK in 1949, he worked for the Naval Medical Research Institute.

A member of many professional organizations and the author or coauthor of about a hundred scientific articles and papers, Saroff still finds time for outside interests such as woodworking, folk dancing, tennis, swimming and canoeing. He even designed and built his own house back in the 1950's. "It took 7 years," he says. "But I still continue to live in it today."

Asked once by a friend when he would retire, Saroff answered, "I’ll retire when I die." His friend responded, "No Harry, when your work gets embarrassing, retire."

To this remark, Minton answers, "Harry’s stamina, both physical and mental, is that of a person many years younger. Fortunately for us, Harry is likely to be around here in the lab for a long time to come."

Contract Meeting Planned

"Subcontracts: Government and Industry Issues" is the subject of an intensive 1-day training seminar to be held at the Bethesda Holiday Inn on Apr. 5. The course is offered by the National Contract Management Association, a nonprofit organization of more than 23,000 government and industry contracts professionals. To register, contact Kristee M. Ryman, 496-6838.
Social Workers Go Extra Mile To Help Patients, Families

March has been designated nationally as the month to recognize the social work profession. In NIH’s Clinical Center, there are 25 clinical social workers who help patients and families deal with their problems.

The social workers assist with a wide range of problems—from admission through hospitalization and the return to the community. They are also trained to help patients and their families cope with illness and access a wide array of health care benefits.

Last year, social services were provided to approximately 75 percent of all inpatients admitted to the hospital for more than 2 days. More than 500 group sessions were offered to the patients and their families for orientation, education and support services.

A typical example of social work involves a young girl and her mother from the rural Philippines. They were admitted to the Clinical Center last fall for an extended stay and education and support services.

The boy and helped contribute to his recovery. The social worker contacted a resource from the family’s home state and was able to obtain a ticket for the child’s father. The father’s presence was very reassuring to the boy and helped contribute to his recovery. These are but two examples of services provided by clinical social workers during the past year. The social work department is available to both patients and employees and may be contacted at 496-2381.

NIAID Funds Study of HIV Infection Among Heterosexuals

Heterosexual men and women who are not intravenous (I.V.) drug users but who are at high risk for HIV infection will be the focus of a major new epidemiology study announced by the National Institute of Allergy and Infectious Diseases. NIAID has awarded three contracts for a collaborative, prospective study of the transmission and natural history of human immunodeficiency virus (HIV) infection among some 2,000 heterosexuals. Study centers in Newark, N.J., and Brooklyn, N.Y., and a data coordinating center in Ann Arbor, Mich., received the contract awards. First-year funding for the 5-year contracts totals nearly $4 million.

Dr. Anthony S. Fauci, director of NIAID, emphasized the importance of this study for designing more effective strategies to prevent and treat HIV infection. Although only 4 percent of all adults diagnosed with AIDS since reporting began acquired the disease through heterosexual contact, this mode of transmission accounts for 30 percent of all AIDS cases in women. Heterosexual HIV transmission usually occurs by sexual contact with an I.V. drug user.

The study sites were chosen in part because they are located in inner-city areas populated by large numbers of HIV-infected drug users, a potential reservoir of infectivity for heterosexuals.

Among the factors to be evaluated for their influence on the transmission and course of HIV infection are the presence of other sexually transmitted diseases, co-infection with HTLV-1 or other retroviruses, infectivity of the source case, and use or nonuse of condoms. In addition, the investigators will study the natural history of HIV infection by following patients clinically while simultaneously assessing their immune system functioning.

Neurologic, neuropsychologic and neuroradiologic testing of some seropositive study participants will be carried out to determine how HIV infects the brain and the nervous system. Also, the progress of HIV infection in heterosexuals will be compared with similar data accrued from people who have acquired HIV infection through other routes, for example, intravenous drug users. In addition, the study will assess educational intervention strategies. —Laurie K. Doepel

Horseback Riding Trip

R&W and the Marriott Ranches invite you to share the beautiful scenery of the Blue Ridge mountains on horseback. Located in Hume, Va. (Fauquier County), Marriott Ranches in a sprawling 5,000-acre facility.

Join us on Saturday, May 13 for a 4-hour ride and a picnic lunch of burgers, salads—the works! Cost for the day is $48 per person. For more information, call the R&W Activities Desk, 496-4600.

Tom Byrd Retires After Long Service to Clinical Pathology

L. Thomas Byrd retired from the Clinical Center’s clinical pathology department on Feb. 24 after more than 32 years of government service, 30 of which were spent in the department.

Byrd started as a technologist in the department’s clinical chemistry service in 1958. He became a supervisor in 1961 and the chief technologist of the chemistry service in 1965. In 1972 he was selected by Dr. James MacLowry, chief of the department, to fill a new position designated as “assistant to the chief.”

For the past 16 years he served in this position.

Dr. Ronald Elin, current chief of the department, complimented Byrd for his many years of outstanding service to the department and the government.

“Tom has been the key person to keep the department on track during the past several years,” he said. “Tom established excellent rapport with all members of the department, so employees willingly went to him for advice or to resolve problems. He was exceedingly effective at resolving problems for the employees and the department. His retirement is a milestone in (our) history.”

With retirement, Byrd plans to spend more time traveling, playing golf and tennis, and doing volunteer work.

ECS Presents Lecture

The NIH Employee Counseling Services will present a lecture on “Drug and Alcohol Addiction: When Someone You Know Needs Help,” presented by Scott McMillan, on Wednesday, Apr. 19, from noon to 1 p.m. in Wilson Hall, Bldg. 1.

This is part of the Guest Lecture/Film Series presented by ECS.
The heart cell tracker allows researchers to measure the depressed heart activity caused by MDS.

"We'd always been able to see the depressed activity through the microscope," said Parrillo. "What we needed was a way to quantitate what we were seeing. The cell tracker helps us understand the disease much better."

Dr. Courtney Mudd, an ACES biomedical engineer, explains how the system works:

"During the growth of the cells, small four-micron, latex beads are added to the culture. The beads become attached to the cells as they grow."

In an experiment, the beads are used as targets for the tracker since they move with the beating cell.

"The tracker takes the magnified video image of the heart cell from a TV camera attached to the microscope," continues Mudd. "The tracker adds a target window to the image and then sends the image to a video monitor for observation."

The operator can then position the window over a bead, switch the unit to track mode and the window will lock onto the bead moving with the cell. The signal generated to move the window is fed to the computer and is a measure of the cell's movement.

"We can resolve down to submicron movement," concludes Mudd, describing the resolution possible with the tracker. "Tom (Talbot) designed the software to handle the signals once they are in the computer."

Before the invention of the cell tracker, researchers who wanted to measure the force and rate of the heart's contractions used a microscope and a chart recorder. Each tiny unit, produced and recorded in tiny zigs and zags on graph paper, had to be measured by hand.

"The tracker acts as an addendum to the microscope," explains Mudd. "It replaces hand measurements, is faster, more precise and more accurate."

Although the cell tracker began as an aid to septic shock research, it is now used in other NIH labs as well.

Dr. Gopal Krishna of NHLBI's Clinical Pharmacology Laboratory and Dr. Asher Shainberg, a visiting scientist at NINDS, were searching individually for a more productive way to conduct their research on the force and rate of contraction in heart cells.

"I was talking with some people in Building 13 about my work," explained Krishna. "They told me about this tracker."

"It was just happenstance that Krishna discovered the tracker," admired Tom Talbot, who specializes in biomechanics and computerized data acquisition in ACES. "That's how we get most of our projects. Most people only know about what we do (at BEIB) by word of mouth. Many are not aware of all our services."

"I'm not knocking word of mouth, certainly," said ACES Chief Eli Walker. "But we have to be more deliberate in making our services available to those investigators who have a need. Our staff has tremendous talent and capability that many researchers are unaware of."

As a result of increased interest in the cell tracker system, Eli Walker, engineer and chief of ACES, organized a team of engineers to investigate future technology in the field.

Since its pilot phase, the tracker has gone through remarkable improvement during its short life. Talbot's software is just one of the additions that made a good thing better.

"After Eli realized the interest that tracking was generating," said ACES staff fellow Dr. Joe Schmitt, "he formed a team to investigate future technology in the field."

The group formed by Walker includes among others the talents of Mudd, Talbot and
Schmitt, an expert in optical techniques. Their agenda is already chock full of ideas for the tracker’s future applications and enhancements.

“Right now we’re looking for improved methods to measure the strength of contraction of cells in culture,” continued Schmitt. “One of our goals is to better define the relationship of a cell’s displacement to its force.”

The tracker’s usefulness is clear and its future in research seems certain.

“The heart cell tracker is just one of many examples of successful collaboration between intramural scientists and BEIB,” says Walker. “We are looking forward to future collaborations that can be just as successful.”

Scherbenske Receives Nephrology Award

Dr. M. James Scherbenske, director of the renal physiology/cell biology program of the Division of Kidney, Urologic, and Hematologic Diseases, NIDDK, recently received the American Society of Nephrology’s Special Recognition Award for his outstanding and dedicated service to the nephrology community during the past 20 years.

Presenting the award at the society’s recent annual meeting in San Antonio, ASN president Dr. Tom Ferris said, “Over the past 20 years, Jim has been involved with all of us who do research in nephrology. Anyone who has applied for a research grant appreciates what an arduous and wrenching experience it can be. Jim has been a friend to all of us, not only when we were successful, but also when we were not.”

Research grants supported by the renal physiology/cell biology program focus on the underlying mechanisms of kidney disease; the structure and function of the kidney; its biochemistry, metabolism, transport and fluid-electrolyte dynamics; and the effects of drugs, toxins and other environmental substances on the kidney.

Scherbenske earned his Ph.D. in physiology in 1966 from the University of South Dakota. After 2 years as an NIH-sponsored postdoctoral fellow at the University of Kansas Medical Center, he began his NIH career in 1968 as a health scientist administrator in the Special Programs Branch of the then National Heart Institute.

His previous honors include the NIH Merit Award in 1980 and 1987 and the National Kidney Foundation Distinguished Service Award in 1986. Accepting the ASN award, Scherbenske said, “This has made everything worthwhile in working at NIH and with investigators in the renal community.”

—Bill Hall □

McClure Heads Reproductive Sciences Branch

Dr. Michael E. McClure has recently been appointed chief, Reproductive Sciences Branch, Center for Population Research, NICHD.

He joined NICHD in 1979 as a health scientist administrator in the Reproductive Sciences Branch and most recently headed the branch Reproductive Genetics and Immunology Program. Prior to coming to NIH, he served on the graduate faculties of the department of developmental therapeutics of the University of Texas M.D. Anderson Hospital and Tumor Institute and the department of cell biology of the Baylor College of Medicine. His research activities have centered on investigating molecular mechanisms of genetic regulation.

McClure received his undergraduate degree in zoology from Purdue University in 1963; his M.S. in cell biology in 1966 from the University of Texas; and his Ph.D. in 1970 in biochemistry from the University of Texas Graduate School of Biomedical Sciences at Houston.

He is a current member of the American Association for the Advancement of Science, American Chemical Society, American Society for Cell Biology, the Biochemical Society (London), the New York Academy of Sciences, Society of Research Administrators, International Society for the Immunology of Reproduction and the American Society for the Immunology of Reproduction.

As chief of NICHD’s Reproductive Sciences Branch, McClure will administer a program of research in reproductive medicine, biology, endocrinology, genetics and immunology, and peri-implantation embryonic development.

He replaces Dr. William A. Sadler who is now dean of the graduate school of arts and sciences at Howard University. □

R&W Club Information Day

On Wednesday, Apr. 5, R&W will sponsor a Club Information Day. The event will be held in the exhibit and balcony areas of Bldg. 10 from 11:30 a.m. to 1:30 p.m. Volunteer representatives will be available to answer questions in their areas of expertise. Some demonstrations will take place and club literature will be available. Come learn about the various club membership opportunities available through R&W. □
NIEHS Funds $5 Million Research Center

By Hugh James Lee

The health effects of synthetic environmental chemicals and the relationship between nutrition and cancer are two of the areas that will be researched under a new 5-year, $5 million grant creating an environmental health sciences center at the University of Medicine and Dentistry of New Jersey-Robert Wood Johnson Medical School in Piscataway, N.J.

The center is the 11th environmental health sciences center funded by NIEHS. Dr. Bernard Goldstein has been named center director.

Dr. David P. Rall, NIEHS director, said of the new facility, "Center grants allow the integration of a number of research and program projects. Each center defines certain areas of research interest, and the establishment of a center allows unity of purpose and central administration under a center director."

The new center will allow coordination of the research efforts of 30 scientists doing research in five major areas. These areas include: studies of the metabolism of benzene in the body, and the mechanisms by which it causes diseases such as leukemia and anemia; investigation of the effects on liver function of polycyclic hydrocarbons, chemicals emitted from vehicle exhausts, combustion and industrial processes; monitoring of contaminants in blood and urine; and studies of the role of nutrition in inhibiting and promoting the development of malignant tumors; and research on how toxins affect nerve cell transmission.

Center grants provide funding for administrative costs, capital equipment, general services, core support and feasibility studies. Other NIEHS centers are at Mount Sinai Medical Center in New York City; New York University; Johns Hopkins; Harvard; MIT; University of Rochester; Vanderbilt; Oregon State University; University of California at Berkeley; and University of Cincinnati.

NIEHS Scientist's Mutation Process Patented

Dr. Thomas A. Kunkel, a researcher at NIEHS, has developed a process that has been patented and will now be marketed commercially through licensing by the Department of Commerce.

The process Kunkel developed in the Laboratory of Molecular Genetics enables the production of site-specific mutations. The procedure, used in toxicology testing and to enhance the benefits of medical therapies, has widespread application in both research and industry. The process is 10 times more efficient than previous processes used for the same purpose. This increase in efficiency results from using a template to produce mutation that is not biologically active upon transfection into a wild-type organism. The Department of Commerce has negotiated a licensing agreement with Bio-Rad Laboratories of Richmond, Calif.

Consensus Conference Explores Oral Complications of Cancer Therapies

NIDR will cosponsor an NIH Consensus Development Conference on the "Oral Complications of Cancer Therapies: Diagnosis, Prevention, and Treatment," Apr. 17-19. The conference will be held in Masur Auditorium, Bldg. 10. Other sponsors include NCI, NIH Office of Medical Applications of Research, Clinical Center, and FDA.

The conference will bring together dentists, physicians, other health care professionals and representatives of the public. Following 2 days of presentations and discussion, a consensus panel will weigh the scientific evidence and formulate a draft statement.

"While there is common agreement that there are many oral complications associated with cancer therapies, there is a lack of consensus about the best means of limiting and treating these problems," says Dr. Philip C. Fox, chief of the NIDR clinical studies unit and chairman of the planning committee for the conference. "We all know the problems are there. Now we have to make more rational judgments about treatment, even though there are no commonly accepted protocols."

The 2 1/2-day conference is open to the public. There is no charge for registration. NIH has certified this conference as meeting the criteria for 14 hours in category 1 of the physician's recognition award of the American Medical Association.

To register for the conference, contact Kathleen Edmunds, Prospect Associates, Suite 500, 1801 Rockville Pike, Rockville, MD 20852, 468-6555.

New NINDS Council Members

Four new members have been named to the National Advisory Neurological Disorders and Stroke Council of the NINDS.

Appointed to 4-year terms are: Dr. Franklin Owen Black, chief of the department of neuro-otology, Good Samaritan Hospital and Medical Center, Portland, Ore.; Dr. Verne S. Caviness Jr., chief of the division of pediatric neurology, Massachusetts General Hospital; Faustina Solis, professor of community medicine, University of California-San Diego; and Dr. Robert H. Wilkins, chief of the division of neurosurgery, Duke University Medical Center.

The council is an advisory group for the National Institute of Neurological Disorders and Stroke and, at present, for the National Institute on Deafness and Other Communication Disorders.
**DRR Animal Program Director Retires**

Dr. William Gay, director of the DRR Animal Resources Program (ARP) since 1980, retired recently after more than 34 years of service to NIH.

Gay, who received a D.V.M. from Cornell University in 1950, came to NIH in 1954 after 2 years at the Walter Reed Army Medical Center where he worked in experimental surgery. Prior to that he practiced in New York City for 2 years. He held his initial position of chief of the DRS animal hospital section until 1963 when he joined the Animal Resources Branch of the Division of Research Facilities and Resources, DRR’s predecessor. In 1966, he moved to NIGMS as program director for comparative medicine, a position he held concurrently with program administrator for the radiology and physiology training programs.

In 1967, he became chief of the NIGMS Research Grants Branch and also was involved in developing a special research program on trauma and injury. After a stint as acting associate director of NIGMS, he moved to NIAID in 1971 as associate director of extramural programs, a position he held until returning to DRR in 1980.

Gay has served on the board of directors and as national president of the American Association for Laboratory Animal Science, is a diplomate of the American College of Laboratory Animal Medicine, and has been on several committees for the Institute of Laboratory Animal Research of the National Academy of Sciences. Gay also has served on many NIH committees, and was chairman of the 1972 Staff Training Extramural Programs committee; the 1976 study of commissions and interagency coordinating committee; and a 1978 task force studying extramural facilities.

He says his most satisfying accomplishment, however, has come in recent years in overseeing the evolution and growth of ARP’s involvement in AIDS research by developing animal models and animal resources in all seven DRR-supported regional Primate Research Centers.

From the initial planning meeting in March 1983, the ARP effort has not only supplied investigators with the much-needed animal model, but it has also improved the health of several primate species through better understanding of how to treat simian AIDS, a naturally occurring and usually fatal disease of macaque monkeys.

Gay is also proud of ARP’s animal improvement program, which has provided NIH support for upgrading animal facilities in order to keep them in compliance with newly instituted federal guidelines.

---

**Eye Council Gains Three**

Three new members have been appointed to 4-year terms on the National Advisory Eye Council, with his colleagues in the laboratory animal and health-sponsored medicine fields. But he hopes their paths will cross as he remains active as a private consultant in those fields. —Michael Pluhar

---

**Nursing Center Issues Report**

The National Center for Nursing Research has issued a report of a conference on Nursing Resources and the Delivery of Patient Care. The conference, held in 1988, assessed the state of knowledge concerning nursing resources as related to the quality of care received by patients. It also addressed the following research areas: ensuring the delivery of quality patient care, developing strategies for allocating nursing resources, identifying factors influencing retention of nursing staff, and determining the influence of organizational structure and management on nursing resources. Conference identified research results in these areas that can be transferred into practice and discussed areas needing further studies.

Suggestions that emerged from the conference included development of the following initiatives:

- Further studies on patient care from an efficacy and patient outcome perspectives;
- Collaborative research models for assuring quality care and improving communication between nurses and other health care personnel;
- Quality of care indicators and standards, and ways to link patient outcomes to cost;
- A comprehensive standardized database on clinical and administrative nursing information and a system to disseminate this information to the public;
- Quality of care indicators and standards, and ways to link patient outcomes to cost;
- A comprehensive standardized database on clinical and administrative nursing information and a system to disseminate this information to those who can benefit from it;
- Studies of occupational health risks and their influence on the availability of nursing resources.

For copies of the report, call 496-0207, or write Office of Information and Legislative Affairs, NCNR, Bldg. 31, Rm. 5B05, Bethesda, MD 20892.

---

**Nine-hole Golf Begins**

The NIH R&W 9-Hole Golf League is offering registration for this season’s play, which begins the first week of May and ends Labor Day. The league accommodates all levels of golfers, offering both competitive and noncompetitive play. Play is once a week after work at the Falls Rd. Golf Course.

For further information on competitive play, call Anne Marie Bozak, 496-8178. For further information on noncompetitive play or for registration forms, call Julia Freeman, 496-7495. Registration forms should be completed and returned by Apr. 7. Officers will also be available at the R&W Club Information Day on Apr. 5, 11:30 a.m. to 1:30 p.m. in the Bldg. 10 concourse.

The league’s preseason event will be the Betty Sanders Open, tentatively scheduled for the afternoon of Apr. 11 at the Falls Rd. course.
Dr. Bernard Beryl "Steve" Brodie, a pioneering pharmacologist, died Feb. 28 at his home in Charlottesville, Va. He was a founder and former chief of the Laboratory of Chemical Pharmacology at the National Heart Institute.

Brodie's scientific career was the basis of a recent, popular biography, Apprentice to Genius, by Robert Kanigel, an unprecedented look at the traditional master-apprentice relationship alive in modern science. It describes a dynasty of American researchers, of which Brodie was head, who for more than 40 years have made prize-winning breakthroughs in biomedical science.

Brodie is considered to be the founder of modern pharmacology and the scientist who brought the field of neurochemical pharmacology into its own in the 1950's and 1960's. He established the concepts of drug metabolism and pharmacokinetics that have become fundamental rules in the clinical use of drugs. He also pioneered the concept that blood drug levels must guide therapeutic dosages and he established the basis for the chemotherapy of malaria using these rules. Moreover, Brodie was the first pharmacologist to discover drugs that act on brain neurotransmitters and their metabolism and he established the foundation for the biochemistry of brain neurotransmission.

He was born in Liverpool, England, on Aug. 7, 1909. He received an undergraduate degree from McGill University in Montreal and his Ph.D. in chemistry at New York University in 1935, where he also began his university career as an assistant professor of pharmacology. He later was an associate professor of biochemistry at NYU.

In 1950, Brodie founded and became chief of the Laboratory of Chemical Pharmacology, NHI. During his 20 years there he brought pharmacology into a new era and trained a great number of the leading pharmacologists of today, including Julius Axelrod, winner of the Nobel Prize in 1970.

After his retirement from NHI, Brodie served as professor of pharmacology at Pennsylvania State University College of Medicine in Hershey, as a research consultant and lecturer at George Washington University and as a senior consultant at Hoffman-La Roche, Inc.

Brodie was elected a member of the National Academy of Sciences in 1966 and was a member of numerous scientific societies, including the American Chemical Society, the American Heart Association and the Royal Society of Medicine in London.

In his lifetime, Brodie authored or co-authored more than 350 scientific manuscripts.

He is survived by his wife Ann of the home and two sisters, Rachel Brodie Morris of Glenhead, N.Y., May Brodie Spevak of Oakdale, Mich., and a nephew, Dr. Stephen Morris, of New York.

A memorial service will be held on Thursday, May 4, at 10:30 a.m. in Lipsett Auditorium, Bldg. 10. All are welcome to attend.

Three new members were appointed recently to the National Advisory Dental Research Council. The three, who will each serve 4-year terms, are Dr. Paul Goldhaber of Waban, Mass., Dr. Racquel Z. LeGeros of New York City; and Mary K. Richter of Trenton, Ill.

Goldhaber is dean of the Harvard School of Dental Medicine and a professor of periodontology. His research focuses on bone resorption and formation in periodontal disease. He has received the International Association for Dental Research Award for Basic Research in Periodontal Disease, the Alumni Research Award Medal for 1966 from Columbia University, and the New York University Alumni Association Award. A past president of the American Association for Dental Research and the International Association for Dental Research, he is a member of the Institute of Medicine, National Academy of Sciences.

LeGeros is the director of research and a professor of dental materials and biochemistry in the college of dentistry at New York University. She has been associated with NIH as a grantee, serving as principal investigator on a variety of research projects. The author of many articles relating to biological and synthetic calcium phosphates, she has served two appointments on the oral biology and medicine study section at NIH.

Richter is executive director of the National Foundation for Ectodermal Dysplasias. She has been involved for many years in programs to educate the public and professionals about this genetic disorder. She is also a member of the patient advocacy committee for skin disease research and the board of directors of the National Organization for Rare Disorders. In June 1988, she served as a panelist for the NIH Consensus Development Conference on Dental Implants.
Jeanne Winnick Retires; Ends 37-Year Federal Career

Jeanne R. Winnick, a public information specialist in NIAID’s Office of Communications, has retired after 37 years of federal service.

She began her career in the institute in 1972 as a secretary in the Office of Communications, and advanced through a series of positions to become a specialist in handling public and Congressional inquiries. During that time she was honored with the NIH Merit Award and awards for superior service.

Well known for her sympathetic ear and invaluable Rolodex, Winnick earned the admiration and respect of her coworkers throughout the institute who relied on her inexhaustible memory of people, places and events. In addition to answering thousands of letters and phone calls from the public, Winnick served as NIAID’s NIH Record correspondent and...

William T. Magers, a 16-year veteran of the NIH Fire Department, Emergency Management Branch, was recently appointed as NIH fire chief.

Previously he served as assistant chief and was responsible for overseeing emergency response as well as administrative duties. Magers looks forward to working with the NIH community in his new role.

Contract Lets Firm Sell Cells

The NIGMS has awarded a new contract to the Coriell Institute for Medical Research to continue operating the Human Genetic Mutant Cell Repository. The 5-year, $5.7 million contract will enable CIMR to collect, characterize, maintain and distribute cells with special characteristics to researchers across the country.

The repository contains cell lines derived from blood or skin samples taken from individuals with a wide range of genetic abnormalities as well as from unaffected family members. The cell lines are tested to be sure they are free of contamination from microorganisms and to verify the existence of particular biochemical or chromosomal features.

For a modest fee, a researcher may obtain samples of these cell lines, along with detailed background information on their origin and characteristics. By using cells from the repository, scientists can study rare disorders without having to locate an appropriate cell donor.

Since its establishment in 1972, the repository has received and processed almost 10,000 cell samples. Currently, the repository contains 4,409 well-characterized and contaminant-free cell lines representing more than 350 different genetic defects.

The Coriell Institute for Medical Research is located at Copewood and Davis Sts., Camden, NJ 08103, telephone (609) 966-7377. A current catalog of available cell lines can be obtained from CIMR or from NIGMS, Bldg. 31, Rm. 4A52.
NIDR Sponsors Research Training for Minorities

Minorities interested in research careers have a unique opportunity at the National Institute of Dental Research. Each year, NIDR selects a minority postdoctoral candidate (dentist) for a 1-to-3-year research training assignment at the institute. This opportunity is made available through the National Research Service Award (NRSA) program.

"I prefer a career in dental research," says Dr. Gail Cherry, a minority participant in the NRSA program. "If we can better understand the causes of various oral diseases, perhaps we can acquire the knowledge to prevent them. I think research is extremely important and challenging for that reason," she said.

Cherry received her B.S. in microbiology from Howard University in 1982 and her D.D.S. from Howard's College of Dentistry in 1987. She learned about the NRSA research opportunity from faculty, colleagues and bulletins while completing her residency in general dentistry at St. Elizabeth's Hospital.

Cherry states, "The curriculum in dental schools does not offer fellowships and/or research training programs. It is especially important for minorities to pursue this exceptional opportunity for training in an area of dental research because they are underrepresented in the laboratory and clinical biomedical research disciplines."

Cherry works in the pathogenic mechanisms section of the Laboratory of Microbial Ecology. Together with Drs. John Cisar and Ann L. Sandberg, she is focusing her attention on the adherence properties of bacteria that colonize teeth, form dental plaque and contribute to the initiation of gingivitis and periodontal disease.

Overview of Peer Review

A STEP Forum entitled, "Overview of NIH Experiments and Studies on Peer Review," will be held Apr. 5, from 1:30 to 4 p.m. in Wilson Hall, Bldg. 1.

The NIH peer review system is an integral part of support for biomedical research. NIH has recently initiated studies and tested experimental approaches to appraise the peer review system. The speakers, Dr. Jerome Green (DRG), and Dr. Ruth Kirschstein (NIGMS) will highlight recent experiments along with the considerations and recommendations of the NIH peer review committee.

Time will be provided for questions and answers following the presentations. No pre-registration is required for the forum, which is open to all NIH personnel. Attendance will be on a space available basis. Additional information is available from the STEP program office in Bldg. 31, Rm. 5B44, 496-1493.

R&W Events Hotline

To help keep NIH'ers informed of all that it does, R&W offers a 24-hour hotline. Dial 496-6598 to hear an updated listing of all the fun things R&W has planned for you.

Scientists already have discovered that many different types of bacteria employ specific cell surface proteins called adhesins to attach to oral tissues. The adhesins bind to receptors on teeth and soft tissues, thus beginning the colonization and the initiation of disease.

Cherry and her colleagues hope that a better understanding of the molecular mechanisms of microbial adherence will lead to novel approaches for preventing this initial phase of the oral disease process.

Minorities interested in this special research training opportunity must have a D.D.S. with 1 to 5 years postdoctoral experience. Additionally, candidates must be U.S. citizens or have been lawfully admitted to the U.S. for permanent residence. A minority is defined as a black, Hispanic, Native American, or Asian/Pacific islander.

Candidates must submit a letter of recommendation from the dean of their dental school, a curriculum vitae and a completed NRSA application. A description of the research the applicant is interested in must also be included. Applications must be received by Apr. 3.

For further information contact Lorrayne Jackson, NIDR EEO manager, Bldg. 31, Rm. B2B39, 496-5046.

Poussaint To Lecture at NIH

In observance of National Women's History Month, Renee Poussaint, anchor of WJLA-TV's evening news programs, will describe how she attained this position. The lecture, sponsored by the NIH Women's Advisory Committee and the Federal Women's Program, will be held on Thursday, Mar. 30, from 11:30 a.m. to 12:30 p.m. in Masur Auditorium, Bldg. 10. Dr. William Raub, NIH deputy director, will introduce Poussaint.

Born in New York City, Poussaint received a B.A. from Sarah Lawrence College in New York and an M.A. from UCLA. She did postgraduate work at Yale Law School and Indiana University. She received an honorary doctorate from Mount Vernon College in Washington, D.C., and studied at the Sorbonne in Paris. She is also a graduate of the Michele Clark Program for Minority Journalists at Columbia University.

Poussaint has earned numerous awards for her reporting—including six Emmys—and for her community service. "I tend to gravitate to issues and people who don't have a voice," she has said.

Sign language interpretation and reserved seating will be provided for the deaf. If accommodations for disabling conditions are needed, contact Denise Banks in the Division of Equal Opportunity, 496-6301. For further information, call Bonnie Douglas, DCRT, chairperson of the Women's Advisory Committee, 496-2847.