CFC Campaign Extended To End on Christmas Eve

The CFC Campaign has been extended through Dec. 24 to allow for full participation by all NIH employees.

Campaign reporting figures as of Nov. 19 showed that NIH contributions totaled $159,927—54 percent of NIH's goal. However, only 23 percent of all NIH employees have contributed to the CFC thus far.

In a memorandum to all employees, NIH Director Dr. James B. Wyngaarden extended his appreciation to the 2,826 employees who have contributed to the CFC, but stressed the urgency for greater employee participation so that NIH can do its fair share to help those who are in such great need.

He noted, "The handicapped, the sick, and the underprivileged continue to need our help."

"By extending the drive, we are giving more employees the opportunity to 'Say Yes' to the millions of people in the Washington Capital Area and throughout our country who need our help."

Employees are reminded that their contributions will go to the agencies exactly as they direct and that all designations are carefully recorded at CFC headquarters. Also, payroll deductions will allow employees to contribute to CFC in a way that will not be a burden—a few dollars a pay day throughout the year.

Please remember to 'Say Yes' to those in need by participating in the CFC. The need has never been greater.

Seven NIH-Associated Scientists Share 1982 Lasker Foundation Awards

Three NIH intramural scientists and four NIH-supported scientists are recipients of the 1982 Albert and Mary Lasker Foundations awards announced on Nov. 17.

Three NIH intramural scientists and four NIH-supported scientists are recipients of the 1982 Albert and Mary Lasker Foundations awards announced on Nov. 17.

Dr. Robert C. Gallo of the National Cancer Institute shared the $15,000 Award for Basic Research with four NCI-supported grantees for "contributions that have significantly increased our understanding of the mechanism of cancer at the molecular level...."

The four scientists are Dr. J. Michael Bishop, professor of microbiology, University of California; Dr. Harold E. Varmus, professor of microbiology, University of California, S.F.; Dr. Hidesaburo Hanafusa, professor, Rockefeller University; and Dr. Raymond L. Erikson, professor, Harvard University.

Dr. Elizabeth F. Neufeld of the National Institute of Arthritis, Diabetes, and Digestive and Kidney Diseases shared the $15,000 Award for Clinical Research with Dr. Roscoe O. Brady of the National Institute of Neurological and Communicative Disorders and Stroke.

The Lasker Awards were created 37 years ago to commemorate Albert Lasker, a successful advertising man, who was responsible for gathering support for the National Cancer Society and also instrumental in the creation of the National Cancer Institute.

In the 37 years that the awards have been given, 36 medical research winners later have become Nobel Laureates, including three of the 1982 Nobel winners for medicine. The three had won their Lasker Awards in 1977.

Dr. Gallo, chief of the Laboratory of Tumor Cell Biology, NCI, is known for his discovery of a T-cell growth factor which enables T-lymphocytes to be grown more readily in the laboratory.

This discovery led to the isolation of the human retrovirus from the cancerous adult T-cells of several patients with leukemias or lymphomas of these cells.

Scientists are investigating HTLV infections worldwide, especially in Japanese and black Caribbean populations where a relatively high rate of infection has been found.

Associated with NIH since 1965, Dr. Gallo is internationally recognized, and has received many other honors for his work in leukemia.

On Oct. 19, he was presented with the Edward Rhodes Stitt Award by the Military Surgeons of the U.S. He also gave the annual guest lecture for the Leukemia Research Fund in London on Nov. 3. On Nov. 11, he gave the Carl V. Moore lecture and received the accompanying annual award at Washington University in St. Louis.

Earlier this year, he gave the first Otto Herz Memorial Lectureship in Cancer Research at Tel Aviv University.

He has also received the first Dameshek Award for leukemia research from the American Society of Hematology, and the first Ciba-Geigy Drew Award at the Hershey Medical Center.

Dr. Neufeld, chief of the Genetics and Biochemistry Branch, NIADDK, was cited for her "significant and unique contributions to the fundamental understanding and diagnosis of a group of inherited diseases called..."
Dr. Camerini-Otero Named Section Chief

Dr. Rafael D. Camerini-Otero has been named chief of the newly formed molecular genetics section of the Genetics and Biochemistry Branch, National Institute of Arthritis, Diabetes, and Digestive and Kidney Diseases.

The new section will focus studies on the molecular defects in patients with selected genetic diseases; on the mechanisms of genetic recombination and gene expression in higher organisms and their cells in culture; and on the transfer and integration of genetic information into the genome of higher eukaryotes, particularly mammals.

Dr. Camerini-Otero has combined the disciplines of physical biochemistry with clinical genetics in his education and research. He received his undergraduate degree from the Massachusetts Institute of Technology, and both a Ph.D. in biophysics and an M.D. from New York University.

His interest in clinical genetics was fostered while he completed a clinical fellowship in genetics at Johns Hopkins University School of Medicine. He is currently on the medical genetics staff at that university, and a staff physician in the NIH Inter-Institute Genetics Program.

Dr. Camerini-Otero's current research is on molecular mechanisms of genetic events in mammalian cells. Recent work includes the study of the recombination and integration of foreign DNA transferred into mouse cells in culture.

He is the author of 40 scientific papers, and is a member of several professional societies.

STEP Module Applications

Deadline is January 6

Dynamic Listening, the subject for STEP module 6, will take place on Apr. 26-21, 1983.

R&D Procurement: Perception, Practices, and Pitfalls, will be the topic of module 7 on May 5-6, 1983.

Deadline for applications on both modules will be Jan. 6, 1983.

For further information contact Arlene Bowles, STEP Program Office, Bldg. 31, Rm. 1863, phone 496-1493.
Montgomery Youth Presents
Sunday Christmas Concert

The Montgomery County Youth Orchestra will perform in a special Sunday Christmas concert in the Masur Auditorium on Dec. 19, commencing at 3 p.m.
The concert will consist of performances by both the junior orchestra and the prep orchestra.
The junior orchestra is composed of 82 students in grades 8 through 10, led by conductor John Gerschelksi. They will play selections by Bach, Tchaikovsky, Stravinsky and Pachelbel.
The prep orchestra, consisting of 81 young musicians in grades 5 through 8, will render holiday music by Isaac. Tchaikovsky, Casels, Satinsky, Mozart and Victor Herbert. Among the traditional Christmas music songs to be played are Sleigh Ride and March of the Toys. The prep group will be led by Mark Ulrich.
All NIH employees, families and CC patients are invited to attend this free concert. □

Sing ... Enjoy ...
It Is the Holiday Season!

Tony DeMarinis, NCI, is the director of the NIH Singers who will present a Christmas Concert in combination with the NIH Madrigal Singers at noon, Friday, Dec. 17, in the Patient Auditorium, 14th floor, Bldg. 10.
The annual joint Christmas concert has been presented at NIH for the past 12 years. The program will consist of Christmas music, ranging from 16th century to the traditional carols.
The Madrigal Singers, directed by Glenn Ricart, former NIH employee, will render Randall Thompson's Alleluia and some less traditional English and Italian selections.
Ben Fulton, NICHD, will direct one and all in the popular sing-along which should make the Patient Auditorium resound with Christmas song and spirit.
All employees of NIH and patients are invited. □

Holiday Safety Notes
On NIH Xmas Decorations

With the approach of the holiday season, most folks in NIH buildings are looking forward to seeing the traditional gay seasonal sentiments conveyed by door decorations and small trees.
Fire Chief William F. Coleman, Sr., has issued a memorandum to all NIH personnel to ensure the safety of all concerned.
Thursday, Dec. 16, has been set for the initial permissible setting up date for trees and decorations.
For decorations, the use of glass mica or metal ornaments is preferred. If ornaments are made of combustible materials, they must be of the flameproof variety.
No lights are to be placed on aluminum trees.
No candles are to be burned in any buildings.
No decoration lights or live trees are permitted in Bldg. 10.
Notify NIH Fire Dept. at 496-2372 after trees with lights are installed and request inspection.
Shut off tree lights when leaving area. Make sure exits are not blocked.
Safety from fire makes a happy holiday. □

Holiday Season's Greetings

The staff of The NIH RECORD wishes all a very joyful and safe Holiday Season.
The next NIH RECORD will be published Jan. 4, 1983.

Festival Chorus Program
Will Be Heard on Dec. 10

Over 35 trained voices will rise in unison starting at 8 p.m. in Masur Auditorium on Friday, Dec. 10, in a spirited holiday program.
Under the direction of Dr. Roger Folstrum, professor of music at the University of Maryland, the Festival Chorus will sing a basic sacred set of music by American composers, American folk songs, and the traditional American Christmas carols.
The Festival Chorus was formed by Dr. Folstrum during the spring of 1982, and now has approximately 60 members. The chorale is composed of eastern Montgomery County adults who "just like to sing."
All employees and friends are invited to enjoy this holiday program brought to NIH by R&W. □

Cope With the Holiday Blues

The Employee Assistance Program, OMS, will present its annual session, How to Cope With the Holiday Blues, on Monday, Dec. 13, at noon in Bldg. 31, Rm. 83C02C.
The program includes practical advice and psychological responses to the holiday depression. Answers to personal problems will be made by Morris Schapio, either in private or during the session. He may be contacted on 499-3164 □

It's Christmas! Open up your hearts and give to the CFC.

Now Is the Time to Give
To Patient Emergency Fund

The Patient Emergency Fund of NIH has begun its annual Christmas fund-raising drive. The fund provides services for Clinical Center patients and their families that cannot be supported by appropriated funds.
The Social Work Department of the Clinical Center is the administrator of the fund, and welcomes all contributions, no matter how small. The continued support of the employees of the NIH community can make an enormous difference in the lives of the patients. More than anything, giving to those in need is what the holiday spirit is all about.
All checks should be made payable to the NIH Patient Emergency Fund. Contributions can be mailed to the R&W Office, Bldg. 31A, Rm. 1A17, or brought to any R&W Gift Shop. Donations will also be accepted at the Social Work Department, ACRF Building, Rm. 1C-144. □

Let us cling to Christmas as a day of the spirit which in every age some souls have believed to be the possible spirit of human society.— George William Curtis
From the Captain's Log...

Photos by Linda Brown

The Olson 30 is a last race boat and this year was to be the NIH Sailing Club’s crash boat for the intramural regatta.

Three Flying Scots are neck and neck in one of the five intramural races held during their racing season.

The NIH Sailing Club battened down the hatches recently on another season of racing and cruising. The club’s annual racing event, the “Hot-Shot Regatta,” usually held in mid-November was cancelled because of bad weather. It has been rescheduled for next spring.

The R&W-sponsored sailing club was organized in 1963. Since then it has continued to grow in both membership and fleet size. The club now boasts over 150 dues-paying members, and currently owns four 19-foot “Flying Scot” sailboats.

The Flying Scot design is considered to be the Cadillac of the dinghies at $5,000 each. Club members are actively involved in racing, training programs, cruising programs, and social activities.

Training for new members is required, and is divided into classroom and onboard instruction sessions. Those who pass the course are allowed to charter boats for recreational day sailing.

The sailing club also offers a cruising program, whereby members can charter larger crafts for multi-day sailing adventure. There are usually two trips during the Memorial and Labor Day holidays. Columbus Day provides another opportunity for members to enjoy a cruise on the Chesapeake Bay. Contact R&W for more information.

New NIA Publication Offers Advice to Elderly

The family doctor, a person to handle all of a person’s medical needs, is in many instances no longer the sole provider of medical care and advice for older people. The elderly are often treated by a number of health professionals, including physicians, nurses, and therapists.

With this variety of health providers, it is important to understand which professionals can offer the most appropriate and least costly care and which services will be paid for by Medicare.

The Age Page Who’s Who in Health Care outlines the training and services of many of the medical practitioners seen by older people, as well as the Medicare coverage for services provided.

The publication is available from the NIA Information Office, Bldg. 31, Rm. 5C35, 496-1752.

Visiting Professor Program Sends Dr. Nadel to Colorado

Dr. Lawrence D. Nadel, a senior staff fellow with the Division of Computer Research and Technology, recently became one of the first five participants in the newly formed NIH-coordinated Visiting Professor Program.

Dr. Nadel, a specialist in biomedical engineering and computing, spent a week at the University of Southern Colorado in Pueblo to deliver a five-part lecture series dealing with the impact of technology on medicine.

Topics in the lecture series included bioengineering in the hospital, clinical applications of computers, and cardiopulmonary data acquisition and analysis.

Participated on Panel

Dr. Nadel also took part in a panel discussion entitled Biotechnology and Bioethics, which centered on the ethical questions raised by the search for new medical technologies.

In addition to participating in these pre-scheduled events, he spoke to students studying physics, electrical engineering, and nursing research, and consulted with faculty and administrators on the application of computers in the research laboratory. They also discussed the possibility of establishing a university biomedical engineering curriculum.

Great Interest Expressed

Over 100 NIH scientists have expressed interest in the NIH-coordinated Visiting Professor Program, which allows intramural researchers to spend a week to a month at minority colleges and universities throughout the country.

The program offers the participating institutions a way to become more aware of opportunities in biomedical research, and give students and faculty a chance to learn directly from members of the NIH research staff.

The program also benefits NIH by providing a way of stimulating and recruiting talented minority personnel into biomedical research, and building a potential pool of future researchers.

According to DCRT’s Dr. Nadel, his week-long stay at the University of Southern Colorado was well worth the time. “I enjoyed getting the opportunity to teach and share my ideas with others,” he said.
Brent Jaquet Captures NIH in Pen and India Ink

For the first time, products of Brent Jaquet’s artistic talent can be enjoyed by NIH'ers and the general public. His creative expression has manifested itself after office hours even though he’s very busy as chief of the public information section of the Office of Research Reporting, NICHD. A line-tipped pen and India ink are Brent’s favorite artistic media. He dabbles in watercolor and has tried acrylic painting, but has found the fine line and precise detail possible with pen and ink his favorite mode for creative expression.

Originally from Hampton, Va., Brent has been drawing for as long as he can remember, becoming seriously interested in the hobby in college. He has never taken any formal art training, but says, “I probably would have picked up some of the same techniques earlier. There are two schools of thought about the subject.”

After graduating from Belmont Abbey College in Charlotte, N.C., Brent was drafted into the Navy where he was formally trained in journalism. Following that, he worked as a daily reporter outside Boston, Mass., and then attended graduate school in journalism at the University of Maryland in College Park. After graduate school, he started working on Capitol Hill for Congressman Ed Roybal of California as his press secretary.

Brent joined the Health Resources Administration in 1979, and transferred to NIH in 1981. He currently lives in Annapolis, Md., with his wife and three children.

A left-handed artist, Brent likes to use bristol board, a hard surface paper, and the finest point available on a crow quill pen for his drawings.

Subjects include water scenes, sailing, lighthouses, and various types of architecture. Other ideas are inspired by his surroundings at home, or by requests from friends and family.

He draws in his spare time. “I usually find time in the early morning, and weekends—much to my wife’s dismay,” he said. “When I get started, it takes me about an hour to get complete control of my thoughts and my hand. I then become so involved, I lose all conception of time.”

It takes about 80 hours on the average for Brent to complete each pen and ink drawing, whereas depending on the detail, pure watercolor will only take him 1 to 4 hours. “I like pen and ink best, but I also like to combine the two,” he said.

The Jaquets are avid sailors and belong to the Parklawn R&W Sailing Club. The club cruising boat, a Coronado 25, is docked on the South River near Annapolis. Since they live nearby, the Jaquets are responsible for the boat’s maintenance.

“We love to go night sailing. There aren’t many boats out at that time; we go about 7 knots at the most,” he said. Many of his drawing inspirations come from these and other sailing adventures on the Chesapeake Bay.

Last January, Brent had the original idea of creating a calendar featuring his drawings of NIH buildings. He first took photographs of the various scenes that interested him, and then drew from the prints used as guides for detail.

In conjunction with the NIH R&W Association, a calendar has been produced (which will be given free to 1983 members), featuring Brent’s six drawings of NIH buildings. They are Stone House, Bldg. 1, the Clinical Center, the National Library of Medicine, Bldg. 4 and the CC, and Bldg. 31. Each drawing was printed and limited to 200 signed editions. It took Brent over 8 months to complete the series.

In the future, Brent plans to draw other building scenes. For instance, he is currently interested in the Bldg. 31A entrance and in doing a view of the National Naval Medical Center as seen from NIH.

He’s especially excited about drawing the old, brick historical homes found in Annapolis. He hopes to work with the Annapolis Historical Society in producing prints of some of the very special houses found there.

Even though he’s never officially entered any formal art contests, Brent is planning to enter a few this summer, particularly one in Annapolis and another in Hampton, Va., where his mother resides.

“My wife tells me when to stop; she knows when the picture is finished. She has a good knowledge of art and color theory—she’s my private consultant,” he said.

Brent’s prints featuring NIH building scenes are currently available through the R&W Association. In the coming year, he will continue his NIH drawings and hopes to have 12 completed for next year’s calendar.
NIEHS Dedicates New Toxicological Research Facility

The new facility of the National Institute of Environmental Health Sciences in Research Triangle Park, N.C., was dedicated Nov. 15. Assistant Secretary for Health Dr. Edward A. Coe, Jr., foundation president. The dedication was also highlighted by the U.S. Marine Corps Band and Color Guard.

The ceremony was one of a series of events held during the week to observe the official dedication of the NIEHS facility. Events included a science program entitled Environment and Health with Dr. Donald S. Fredrickson, former NIH Director and now scholar-in-residence at the National Academy of Sciences, presiding.

Presentations were also made by Dr. Theodore Cooper, executive vice president of the Upjohn Company, and Dr. Russell W. Peterson, president of the National Audubon Society. NIH Director Dr. James B. Wyngaarden keynoted a Biennial Science Open House on Nov. 16. "The new campus of the National Institute of Environmental Health Sciences is a most appropriate place in which to discuss directions and challenges in health sciences research," he said.

"Brought together here in 'The Park' is a diverse collection of outstanding talent, dedicated to the task of unravelling the mysteries of environmental impacts upon biological systems, so that we may all live in finer health in the air and soil and sea around us. The difficulty of the task is exceeded only by its importance," Dr. Wyngaarden said.

Investigator-attended poster sessions spanning the length of the new building's skylighted mall, illustrated the diversity of work pursued by NIEHS.

Three special scientific presentations given in the building's new conference center were by: Dr. Arnold Brody, Laboratory of Pulmonary Function and Toxicology, who spoke on the Pathogenesis of Asbestos-Induced Lung Disease; Dr. William Kluwe, Toxicology Research and Resting Program, presented results of a study on the Toxic (Continued on Page 7)

Cutting the ribbon were l to r: Representative Fountain (N.C.); North Carolina Governor Hunt; Dr. Brandt; and NIEHS Director Dr. Rall.

Attending the dedication ceremony's science program were l to r: Dr. Brandt, Dr. Fredrickson, Dr. Theodore Cooper, Dr. Rall, and NIH Director Dr. Wyngaarden.
Effects of 1, 2-Dibromo-3-Chloropropane on the Male Reproductive System; and Dr. Dale Sandler, Biometry and Risk Assessment Program, outlined a new epidemiological study on Environmental Factors and Chronic Renal Failure.

A special open house featuring a self-guided tour staffed by speakers explaining important details and features of the building was attended by more than 800 Institute employees, their families, and friends from the surrounding North Carolina communities.

NILHS Director Dr. David P. Rall attended a morning science program on the day of the new building’s dedication. Drs. Fredrickson and Brandt followed close behind.

NICHD Women’s Group Holds Career Workshop

Confidence, assertiveness, self-esteem and an attitude of cheerfulness are the key elements in attaining a career that is a “way of life” versus “having just a job,” according to Nan Brown, minister, retired Federal employee and guest speaker for the NICHD Women’s Organization’s career development workshop, held recently.

Six levels of self-analysis were discussed which Mrs. Brown considered helpful to forming a desirable career.

These included knowing one’s self, having the right attitude, filling out resumes creatively, dressing for the job to which one aspires, and preparing for the interview.

Employees were urged to take advantage of opportunities to work overtime, to learn what positions exist in their organizations and to familiarize themselves with the jobs of others working in their office.

Mrs. Brown suggested exploring university and college course offerings in order to maximize qualifications for the desired position.

Self-confidence emerged, throughout the discussion, as the basis for being successful in any plan for career development. Mrs. Brown demonstrated how confidence and belief in her own abilities was central to her gaining respect and credibility in the work force.

For more information about the NICHD Women’s Organization, write to Rayna Blake, NICHD EEO Office, Bldg. 31, Rm. 2A20, or call 496-2153.

New Tools for Medicine Described During Recent MFL Lecture

To learn more about how the body protects itself from disease, scientists have harnessed one step of the process—the making of special disease-fighting proteins called antibodies. By doing so they have opened up a field with enormous research and clinical potential.

In his recent Medicine for Layman lecture entitled New Tools for Medicine: Cell Factories for Antibodies. Dr. Jay Berzofsky, senior investigator in the Metabolism Branch of NCI’s Division of Cancer Biology and Diagnosis, described this new technology and its widespread usefulness both in research and clinical medicine.

The new technique involves making a hybridoma, a hybrid cell which incorporates desirable traits of two parent cells: a myeloma tumor cell and a normal B-lymphocyte, a type of white blood cell.

A myeloma tumor cell is actually a normal immune cell gone awry. The myeloma makes antibodies of its own, but the specificity of the antibodies—that is, what the antibodies will recognize chemically and react with—is unknown.

B-lymphocytes are white blood cells which make antibodies against specific antigens—foreign substances or organisms to which a person or animal is exposed. However, the B-lymphocytes do not survive in culture very long.

Myeloma cells, on the other hand, grow indefinitely in culture. By fusing myeloma cells and B-lymphocytes, scientists generate hybrid tumor cells (hybridomas) that have the unlimited growth potential in culture of myeloma cells. Like B-lymphocytes, they make antibodies that are specific to the antigen against which the animal source of the lymphocytes was immunized.

By diluting and cloning the resulting hybridomas, scientists endow the cells with a third desirable trait, Dr. Berzofsky explained. Colonies of cells are cultured that are the progeny of one hybridoma cell, so that each culture makes only one kind of antibody.

The antibodies made by hybridomas are called monoclonal—they are produced by a single clone of cells.

Monoclonal antibodies, according to Dr. Berzofsky, are pure and reproducible from lab to lab. They can be grown in virtually unlimited quantities. With these attributes, monoclonal antibodies have given new versatility to already existing applications of antibodies and have opened up new areas of investigation.

The purity of monoclonal antibodies has made them extremely useful in studies of the structure of both antigens and antibodies. They can be used to separate cells in culture that cannot be distinguished under the microscope.

The use of monoclonal antibodies in a procedure called radioimmunoassay has added another level of sensitivity to a technique already capable of measuring extremely small amounts of substances.

By measuring the amount of radioactivity bound to the antibody, the scientist can determine how much unlabeled antigen is present in the test substance.

Radioimmunoassay using monoclonal antibodies can be used both in the laboratory and the clinic, for example in measuring hormones produced to determine whether a woman is pregnant. Other clinical uses of monoclonal antibodies include tissue typing for organ transplantation or blood transfusion.

Physicians can use monoclonal antibodies diagnostically by making antibodies that recognize only abnormal cells and labeling the antibodies with fluorescent chemicals. Only the cells to which the antibodies attach will fluoresce, making it possible for example, to identify cancer cells that were otherwise indistinguishable from the normal cells around them under the microscope.

Another experimental therapeutic use is based on the fact that antibodies can be used as antigens to make other antibodies against them. If a B-lymphocyte becomes malignant, it causes a leukemia or lymphoma.

The malignant lymphocyte continues to make its own characteristic or idiosyncratic antibodies, called the idiotype of the lymphocyte. A monoclonal antibody made against these idiotypic antibodies will become a tumor-specific antibody against the particular clone of B-lymphocyte that has become malignant.

Monoclonal antibodies have already proven to be of great utility in the research and clinical laboratory, the blood bank, and in patient care, Dr. Berzofsky concluded. The high degree of purity and specificity this technology brings to the study and use of antibodies makes it a tool of enormous versatility and potential.

FAES Graduate School Offers Courses for Spring

The FAES Graduate School announces its schedule of courses for the spring semester to be given on the NIH campus. Classes will begin Feb. 7.

Tuition is $32 per credit hour. Courses may be taken for credit or audit. Courses that qualify for Institute support as training should be cleared with supervisors and administrative officers as soon as possible.

Subjects include biochemistry, biology, genetics, chemistry, physics, mathematics, medicine, pharmacology, toxicology, physiology, psychiatry, statistics, languages, administration and courses of general interest.

It is possible to transfer credits earned to other institutions for degree work, and many are approved for AMA Category I credit.

Registration is possible by mail now through Jan. 14, and in person from Jan. 26 through Feb. 1. A registration form must accompany the check or training form. Catalogs are available in the Graduate School office, CC, Rm. 2C207A and in the Foundation Bookstore, Rm. B1L101, or call 496-7977.


mucopolysaccharide storage disorders (MPS)."

She started working on the Hurler syndrome 15 years ago. Through her research, she demonstrated that the MPS diseases result from a defect in specific enzymes involved in the degradation of mucopolysaccharides.

Dr. Neufeld and her colleagues have also developed special methods that make it relatively easy to diagnose patients with these diseases, and to perform prenatal diagnosis via amniocentesis.

This research has contributed to the basic knowledge of an important group of genetic diseases, and has also stimulated research on the biology of lysosomes. The mechanism by which cells direct the traffic of enzymes into lysosomes has become an important area of investigation.

Dr. Neufeld came to NIH in 1963 as a research chemist. She became chief of the section of human biochemical genetics in 1973, and assumed the duties of branch chief in 1979 when it became a branch.

Born in Paris, France, she received her B.S. degree from Queens College, New York; and her Ph.D. in comparative biochemistry from the University of California, Berkeley.

She was elected to the National Academy of Sciences in 1977, and is the recipient of numerous awards, including the 1982 William Allan Award of the American Society of Human Genetics.

Dr. Brady, chief of the Developmental and Metabolic Neurology Branch, NINCDS, was recognized for his research efforts and contributions in the understanding of a group of hereditary disorders known as lipid storage diseases, and for the development of genetic counseling procedures and the initiation of possible treatment methods for these disorders.

Specifically, he discovered the precise metabolic defect—a missing enzyme—that causes the lipids to build up and destroy these tissues.

Dr. Brady has demonstrated this to be the cause for such disorders as Gaucher’s disease, Niemann-Pick disease, Fabry’s disease and Tay-Sachs disease.

His discoveries now provide the basis for the early diagnosis of the diseases, for the identification of those who might pass on the disorders to their children, and for the detection of the diseases prenatally.

The present and continuing thrust of Dr. Brady’s investigations deal with the treatment of the disorders. In his efforts to find a promising treatment, he is attempting to learn how to replace the missing enzymes, thus reducing the buildup of destructive lipids and preventing the damage they cause.

He has been officially associated with NIH since 1964, after serving with the U.S. Naval Medical Corps.

A Pennsylvania State University graduate, he received his M.D. from Harvard University. He is well-known internationally in the clinical research community and is recognized as a leader in the lipid disease research area.

Dr. Brady has been honored many times throughout his career for his creative research in the field. Among those honors are the Distinguished Service Award, HHS; the Modern Medicine Distinguished Achievement Award, the Sarah L. Polley Memorial Award, the Cotzias Award, and the Passano Foundation Award.

CAUTION!

Sorvall Superspeed Centrifuges

The door latch on the Sorvall RC-2 or RC-2B superspeed centrifuges may not be sufficient to contain rotor fragments which could escape in the event of a rotor failure or operator error. All RC-2 and RC-2B units should be examined prior to use, following the directions included in the precautionary material attached to each unit.

If there are any questions regarding this problem, or the unit does not have this precautionary material attached, call the Division of Safety, 496-3353.

Dr. Cowell Receives Leonard Covello Award

Dr. Daniel D. Cowell, assistant director for health promotion, National Institute on Aging, was named winner of the 1982 Leonard Covello Award, sponsored by the American Italian Historical Association.

Dr. Cowell won this award for his paper, Funerals, Family and Forefathers: A View of Italian-American Funeral Practices.

In his paper, he traces the evolution of funeral practices from the Old World, pre-migrant culture of southern Italy into modern America. He shows how early traditions have been modified by American social patterns, industrialization generally, and the emerging American funeral industry in particular.

The paper was written in connection with a dissertation for a master’s degree in liberal studies awarded to Dr. Cowell by Georgetown University in May 1982.

A psychiatrist and commissioned officer of the U.S. Public Health Service, he has lectured and published numerous articles on aging, mental health, and the family.

Dr. Cowell’s previous awards include the PHS Commendation Medal in 1980 and the American Psychiatric Association’s Fellowship Award in 1977.

Dr. Cowell’s previous awards include the PHS Commendation Medal in 1980 and the American Psychiatric Association's Fellowship Award in 1977.

Lois A. Swim Retires From CC Patient Library

The CC Patient Library is missing a familiar face. Lois A. Swim, supervisory librarian, recently retired after 16 years of government service.

"One of the things that always impressed me about Lois was her interest and care for the patients. That feature always came first in her attitude and approach to her job," said Arnold Sperling, chief of the CC's Patient Activities Department.

"I really will miss the contact with the patients most of all. If I helped them escape their medical problems for only 1 hour, I have been successful," she said. "The convenience and comfort of the patients was always my primary concern. I tried to accommodate them in every possible way."

A native of Buffalo, N.Y., Mrs. Swim became interested in library science while working at the Bureau of Prisons Library as a clerk-typist. She attended night school for 4 years at the Department of Agriculture (a University of Maryland off-campus site) and obtained an associate's degree in library science. She worked for the Army Library in the Pentagon before coming to the CC in 1966. She became the supervisory librarian in 1969.

Her retirement plans include traveling and playing golf. She and her husband have a trip to Connecticut and Nassau planned before moving to Palm Coast, Fla., at the end of the year. "I’m looking forward to traveling, but I take many memories with me as I leave," she said smiling.

CEC Will Accept Nominations For Graduate Training Courses

The NIH Career Education Center is accepting nominations for graduate training courses in administration for the spring semester. All courses are graduate level and require that participants possess bachelor's degrees.

To be eligible for nomination, employees must:

• Have a career or career conditional appointment;
• Have 12 months continuous Federal service at the time of application;
• Possess a bachelor's degree or secure university approval; and
• Meet the job relatedness requirements for training as described in the NIH Training Policy (2300-410-1).

Each applicant must submit an approved HHS Form 350 to the BID Personnel Office by COB Monday, Jan. 3.

For further information contact Dick Jackson, Bldg. 31, Rm. B2C39, or call 496-6211.

Meet success like a gentleman, and disaster like a man.—Lord Birkenhead.
Clinical Center Holds Second Mock Disaster Drill

In life-threatening situations, immediate and responsible action is critical. To test the Clinical Center's response to a serious emergency on campus, the CC Safety Committee staged a mock disaster on Nov. 5.

The test-simulated collision of an NIH shuttle bus with a maintenance truck at the intersection of Center Drive and West Drive, directly opposite the ACRF main entrance.

According to the scenario, the collision caused flammable material in the truck to ignite and engulf the truck and side of the bus in flames.

The exercise followed a similar drill conducted last year that led to revision of the CC's disaster plan based on observation of what went well, what didn't, and why.

Following the disaster plan scenario, CC departments and NIH components became involved in the rescue operation. Outside organizations were also called on to assist. This drill was coordinated with Suburban Hospital, Bethesda-Chevy Chase Rescue Squad, Bethesda Fire Department, the National Naval Medical Center Fire Department, NIH Fire Department, NIH Special Police, Occupational Medical Service, and Clinical Center medical and staff personnel. The NCI Surgery Branch and the NHLBI Cardiology Branch also were involved in the exercise.

The main objectives of the drill were to:
- test the revised CC disaster plan in an emergency occurring outside the building;
- evaluate disaster plan response in the Clinical Center;
- conduct a teaching drill to familiarize participants with the revised plan; and
- meet the requirements of the Joint Commission on Accreditation of Hospitals.

Taking part in the simulated drill were 24 passengers in the bus. Nineteen were designated as injured. The bus driver was killed. The NIH Fire Department responded to an alarm activated by a witness at the scene, and the CC disaster plan was activated by Dr. Jay Shapiro, Acting CC Director.

"The drill demonstrated that we could mobilize a number of physicians, nurses, and technical people into an emergency group with the capacity to respond to a disaster if it should occur," said Dr. James Shelhamer of the Critical Care Medicine Department who served as field triage physician.

"A major success of the drill was that we were able to identify problem areas," said Corwin Strong, CC environmental safety officer. He explained that many of the weaknesses were related to coordination and communication breakdowns.

"The Clinical Center is not accustomed to emergency situations, and we now realize that we need to start thinking in terms of emergency response. Many of these problem areas have already been resolved," he stated.

Designated staff members from NIH and Suburban Hospital observed rescue procedures at specified sites to evaluate the proficiency of response at all levels. Recommendations set forth in the observers' critiques will be reviewed for possible incorporation in a revised disaster plan.
New Drug for Kidney Stone Prevention Announced by NIH Grantee in Texas

A drug shown effective in preventing kidney stones was announced last week by Dr. Charles Y.C. Pak, director of the General Clinical Research Center and professor of internal medicine at the University of Texas Southwestern Medical School. FDA approval of the drug is expected shortly, Dr. Pak said.

The drug was developed at the UT Health Science Center where the Division of Research Resources supports the General Clinical Research Center (GCRC). The research is currently funded by the National Institute of Arthritis, Diabetes, and Digestive and Kidney Diseases.

After 15 years of clinical trials, the drug, sodium cellulose phosphate (SCP), has shown clinical effectiveness in inhibiting painful stone formation in patients with "absorptive hypercalcuria," Dr. Pak said. This common kidney stone-forming disorder is frequently associated with increased absorption of calcium from food. He said the drug is useful in treating the more severe forms of absorptive hypercalcuria. Diet modification can often prevent stone formation in the disorder's milder forms.

Binds Calcium

Nonabsorbable in the body, SCP given by mouth works by binding calcium from food, thereby lowering the amount of calcium absorbed from food, and lowering the amount of calcium absorbed from the intestines.

In so doing, SCP lowers calcium in the urine and makes the urine less likely to undergo precipitation of stone-forming calcium salts. Such salts include calcium oxalate and calcium phosphate.

Dr. Pak's findings on sodium cellulose phosphate were reported in the December issue of the Journal of Urology.

In a study conducted in the GCRC in Dallas, 18 patients with absorptive hypercalcuria formed 123 stones during the 3 years before treatment. For this group the stone formation rate was 2.28 stones per patient per year prior to SCPA therapy.

During treatment, averaging 2.37 years per patient, only 10 stones were passed. This showed a stone formation rate of 0.23 stones per patient per year. The remission rate was 77.8 percent. All 18 patients showed reduced stone formation rates individually.

Controlled Environment Necessary

"Drug studies of this nature would have been impossible to carry out without the controlled environment available in the GCRC," said Dr. Pak.

Dr. Pak also reported that by using new techniques, he and his research team can determine the causes of stone formation in about 95 percent of his patients. Until recently doctors were unable to determine the cause of kidney stones much of the time.

In persons who form kidney stones, the recurrence rate is usually high—about 70 percent. Yet people often go untreated, or a "shotgun" approach to drug therapy is used in which drugs are prescribed on a hit-or-miss basis.

"The main thing to remember is that there are many different causes for kidney stones—it is not a single disease," Dr. Pak said. "It therefore demands many different modes of treatment."

He has identified a dozen of these different causes. For seven of the more common causes, all of which are associated with calcium stones, he has formulated medical treatment for each. Treatment is tailor-made to correct the underlying cause.

While kidney stones are rarely fatal, many people live in dread of passing their next kidney stone. Kidney stones are rough and spiny, often causing excruciating pain as they move through the urinary tract to be expelled, or in some cases, to become trapped and obstruct urine flow. Emergency surgery is sometimes required.

Symptoms include colicky pain in the flank and groin associated with bloody urine. Unrelenting pain may last several days as the stone makes its way through the ureter from the kidney to the bladder.

Important Health Problem

Kidney stone disease, affecting about 5 per 1,000 persons in the U.S., is an important health problem resulting in many lost work days and costing hundreds of millions of dollars annually in hospitalization and treatment.

In more than 500 patients treated by Dr. Pak and his team over the years, stone formation has been prevented in 72 to 91 percent of the patients and stone formation has been reduced in 90 to 100 percent of patients, depending on the type of disorder.

With careful diagnosis and selective therapy, he treats his patients individually. While the majority of his patients form calcium stones, the causes can vary greatly.

Calculous stones, made of calcium oxalate and calcium phosphate, can form when there are excessive amounts of calcium, oxalate or uric acid in the urine, or when the urine contains low levels of citrate.

Patients who form calcium stones because they excrete excessive amounts of oxalate, comprise a second major grouping. Here, the most common cause is a bowel disease or abnormality. Persons who have had intestinal bypass surgery for morbid obesity are candidates for these stones.

Another broad grouping involves high uric acid in the urine, called "hyperuricosuria." Often this results from too much animal protein in the diet, producing an excess of purines which are converted to uric acid.

Some patients' urine contains low levels of citrate, an inhibitor of stone formation. Dr. Pak's group is using an investigational drug, potassium citrate, to correct this defect.

Inadequate Fluid

In about 5 percent of kidney stone cases there is no metabolic abnormality according to Dr. Pak. Instead, these people often don't like to drink water and have concentrated urine from inadequate fluid intake.

He says that reliable methods for detecting the causes of stone disease are available, involving three outpatient visits.

On the first visit, patients are asked to collect a 24-hour urine sample while on their customary diet and fluid intake. They then are asked to follow a diet restricted in calcium and sodium for 1 week. At the end of the week another 24-hour sample is collected.

Urine samples are analyzed for calcium, oxalate, uric acid, citrate and other common constituents.

At the third collection, a test called "fast and load" is done. A urine sample is taken after the patient has fasted 10 to 12 hours. Then a "milk shake" containing 1 gram of calcium is taken, followed by another urine sample.

"The fasting test can tell us if the patient has renal hypercalciuria. If the calcium in the urine is high when they are fasting and blood calcium is normal, this indicates they are leaking calcium into the urine," Dr. Pak said.

"If the urine calcium level is abnormally high after the patient has taken large amounts of calcium by mouth, this provides indirect evidence of excessive calcium absorption."

Blood tests for parathyroid hormone, calcium and uric acid readings are also part of the workup.

Microcomputer Club to Meet Dec. 16

The NIH R&W Microcomputer Club will hold their next meeting on Dec. 16 at noon in Wilson Hall. Open to everyone, the program will include a friendly introduction to microcomputers.

For further information, contact the R&W activities desk in Bldg. 31, (496-4600) or the gift shop in the Westwood Bldg., (496-7549).
NIA Supports Seminar on Museums and the Elderly

Sunny California skies and the gracious facilities of the Huntington Library, Art Gallery and Botanical Gardens provided the background for a landmark seminar, Older Adults and the Museum World, held in October.

The National Institute on Aging was a cosponsor for this meeting of museum educators and administrators.

The participants heard gerontologists describe the physical, social and psychological characteristics of the elderly.

Leaders in the museum world spoke of opening up their facilities—including zoos, parks and historic houses—to the growing older population.

Although some museums have targeted programs for older people and almost all have extensive programs for children, most museum leaders feel that a whole new approach is needed.

Not only can museums better serve the elderly, but the elderly with their extended leisure time are a possible source of valuable volunteer assistance. Many museums would like to improve their tours and exhibits to make them more appealing to older visitors.

Some museums are searching for subjects or artists that would especially attract an older viewer, while others would simply like to make some of their major shows—which normally have long lines and high ticket prices, more easily available to the elderly.

On the other hand, some museums see little point in attracting older visitors if they are ill-prepared by background or education to enjoy the exhibits.

One aim of the meeting was to explore ways to prepare a group for a museum visit, something often done with children but rarely done with other age groups.

NIA joined with the Smithsonian Institution, the National Council on the Aging, Johns Hopkins University, and the Grand Peoples Company of Los Angeles to sponsor this 3-day seminar.

The Grand Peoples Company—a private, nonprofit public service corporation funded by the Weingart Foundation, which arranges trips for the elderly to cultural and recreational centers—invited seminar members to join in on trips to Los Angeles area museums.

These trips, plus workshops presented by museum leaders who run successful adult or outreach programs, provided valuable first-hand information. Two Smithsonian Institution museums, the National Museum of American History and the National Museum of Natural History, reported on programs being carried out by museum personnel in nursing homes.

Russell Peitham, formerly with the Los Angeles Children’s Museum, brought primitive objects and Indian artifacts and gave seminar members a taste of an outreach program. Members of the Huntington’s docent program attended the seminar and informally shared their experiences as older volunteers.

Several well-known gerontologists were among the speakers at the meeting. They included Dr. Robert N. Butler, former NIA Director; Dr. Edyth Schoenrich, Johns Hopkins University and National Advisory Council on Aging member; Dr. Pearl German, Johns Hopkins; Jacqueline T. Sunderland, National Council on Aging; and William K. McClelland, president, Grand Peoples Company and member of the National Advisory Council on Aging. Mr. McClelland originated the seminar and served as overall organizer.

In response to the enthusiastic reception accorded this pioneering meeting, the Smithsonian Institution plans to hold similar seminars in the Midwest and one for August 1983 in Washington, D.C.

—Clarissa K. Wittenberg

Dr. Michael Sporn Shares Gruber Memorial Award

Dr. Michael Sporn, chief of the NCI Laboratory of Chemoprevention, and Dr. Werner Bollag, chief of cancer research at F. Hoffmann-La Roche and Company, Ltd., Basel, Switzerland, shared the 1982 Lila Gruber Memorial Cancer Research Award and Lectureship Dec. 6 at the annual meeting of the American Academy of Dermatology in New Orleans.

The annual award, comprising a lecture and $10,000, recognizes the lifetime achievements of physicians or scientists in cancer research.

Dr. Sporn and Bollag were chosen for this award because of their work on retinoids, vitamin A derivatives that show promise as agents for cancer prevention in humans.

Dr. Sporn and his coworkers have developed new methods that use hamster tracheal cells grown in Petri dishes to measure the biological activity of retinoids.

Develop Abnormally

These cells develop abnormally in the absence of vitamin A or a retinoid-like substance. Normal differentiation is restored with the addition of a retinoid.

The hamster tracheal organ culture assay has the advantages of being more rapid and requiring less material than testing in animals, resulting in cost savings when testing expensive retinoids. This assay has been used for testing the effectiveness of several hundred retinoids.

Dr. Sporn’s laboratory, in collaboration with Dr. Richard C. Moon’s of IIT Research Institute, Chicago, was the first to demonstrate the ability of synthetic retinoids to inhibit the development of bladder and breast cancer in experimental animals.

Dr. Charles Frolik and Dr. Anita Roberts, working with Dr. Sporn, were the first to elucidate how animals metabolize retinoic acid.

Dr. Sporn attended Harvard College and received his M.D. from the University of Rochester School of Medicine in 1959. After an internship in medicine and psychiatry at the University of Rochester Medical Center, he joined the NIH as a member of the Laboratory of Neurochemistry, National Institute of Neurological Diseases and Blindness, in 1960.

In 1964, he came to the NCI as a senior staff scientist in the Chemistry Branch, where he remained until 1970, when he became head of NCI’s Lung Cancer Unit, and later chief of the Lung Cancer Branch. In 1978, he assumed his current position.

Dr. Sporn is the author or coauthor of more than 90 publications and a member of numerous professional organizations. He is an associate editor of Cancer Research, has served on the editorial advisory board of the Journal of Neurochemistry and as a member of the scientific advisory committee on biochemical and chemical carcinogenesis, American Cancer Society.
New Radiation Research Program Created at NCI

The National Cancer Institute has established a new program to coordinate radiation-related research in the areas of biological effects, diagnosis and treatment.

The new Radiation Research Program in the Division of Cancer Treatment consolidates three existing NCI branches in one division—the Low-Level Radiation Effects Branch, the Diagnostic Imaging Research Branch, and the Radiotherapy Development Branch.

The program will coordinate radiation research funded by NCI and will be an information resource for NCI and NIH researchers and administrators. It also will be a focal point for information exchange among radiation researchers internationally.

Dr. David Pistenmaa, chief of the Radiotherapy Development Branch since 1979, will direct the program.

Low-Level Radiation Effects Branch

The branch has a specific congressional mandate to establish a "comprehensive program of research" into the biological effects of low-level radiation.

It will investigate the effects of doses of ionizing radiation less than 10 rads (radiation absorbed dose) on biological systems—cells, tissues and organs.

There are indications that these low doses can cause genetic damage in offspring, and that other types of damage may, over a period of time, lead to cellular changes such as cancer.

The branch will examine how radiation affects cells, tissues, and animals, the doses of radiation that are needed to cause these changes and the possible long-term effects of low-level radiation on human populations.

Diagnostic Imaging Research Branch

This branch will focus on developing and testing equipment and procedures that employ a variety of types of radiation to detect and diagnose cancer and other diseases.

The branch also will support investigations of the clinical capabilities of a number of promising experimental alternatives to radiation for diagnostic imaging.

Initially, the branch will examine the usefulness of nuclear magnetic resonance imaging alone and in combination with other imaging modalities.

Later investigations will examine the clinical potential of ultrasound, thermography, and diaphanography.

Radiotherapy Development Branch

Innovative methods of radiation treatment will continue to be a major function of this branch. It will, for example, support research to refine interstitial (within tissue) radiotherapy, a highly specific, high-dose irradiation to cancerous tissue which does not injure surrounding normal tissue.

The branch also will continue its efforts in neutron beam therapy, a form of high-LET radiation.

NCI is now funding four neutron beam treatment centers to conduct clinical research into the uses of neutron beam treatment for cancers that are difficult to treat with X-rays.

The branch also is planning to evaluate ways to combine radiation with other treatments for greater effect. Other studies will support the development of methods for calculating the dosage from radioactively tagged, antitumor antibodies used to treat cancers as well as the evaluation of planning for photon beam (X-ray) and electron beam treatment.

NIH Holds Conference On Asthma and Allergies

"Will a move to another climate help my allergy problem?" "Will my child outgrow her asthma?"

These and many other questions were answered at the Community Conference on Asthma and Allergies held at the Clinical Center on Nov. 20.

More than 350 people attended the lectures, workshops, and discussions, which were led by a panel of allergists and immunologists—all associated with the National Institute of Allergy and Infectious Diseases.

TV Anchorman Was Moderator

David Schuurman, TV-7 news anchor, was the moderator for this public education event cosponsored by NIH, the Metropolitan Washington Chapter of the Asthma and Allergy Foundation of America, and the NIAID Center for Interdisciplinary Research on Immunologic Diseases at Georgetown University School of Medicine.

Presentations were made on asthma, hay fever, drug allergy, food allergy and childhood allergies, followed by a short question-and-answer period. The audience then attended workshops for practical hints and demonstrations on allergy treatment and self-management.

This conference was part of an ongoing community outreach effort. The NIAID collaborates with the AAFA, and its local chapter, by providing printed information as well as by sponsoring meetings to inform the community about the most recent advances in allergy research and treatment.

The AAFA estimates that almost half a million people in the Washington metropolitan area suffer from one or more allergies. The local AAFA chapter, headed by Eileen Rosenthal of Annandale, Va., is dedicated to serving this large group of allergy sufferers.