Lowering Cholesterol Levels With Diet, Drugs Can Reduce Heart Disease

By Blair Gately

An NHLBI-sponsored study reports that lowering blood cholesterol levels with diet and drug therapy can slow, or even reverse, the clogging of coronary arteries that causes heart disease.

The findings of the Cholesterol Lowering Atherosclerosis Study were announced at a recent press conference at NIH and published in the Journal of the American Medical Association.

Dr. Claude Lenfant, director, NHLBI, told reporters the study provides "significant new information" on the benefits of lowering cholesterol levels.

Cholesterol, which is produced in the liver, is an essential ingredient of every tissue system in the body and is important to the production of bile acids and hormones. It is also a structural component of myelin, the sheath that surrounds and insulates nerves.

High levels of cholesterol lead to heart disease by causing fatty deposits, or lesions, to accumulate on arterial walls and obstruct blood flow to the heart muscle. It is the buildup of these deposits that causes the disease known as atherosclerosis.

Dr. David Blankenhorn, the study's principal author and a professor of medicine at the University of Southern California, said the results of the study provide the first clear evidence that lower cholesterol levels can slow or reverse the formation of these lesions.

The USC researchers studied 162 men, ages 40-59, who had undergone heart bypass surgery. The procedure grafts blood vessels from elsewhere in the body onto the heart and reoutes the flow of blood around blockages in the arteries.

The study compared substantial reduction of blood cholesterol levels through treatment with a combination of diet and drug therapy in one group, against a less marked reduction of cholesterol from diet and placebos, or dummy pills, in a second group.

The treatment group was placed on a low-fat diet and given two cholesterol-reducing drugs, colestipol and niacin. Those in the control group, who were given placebos, ate a less restricted diet.

After 2 years, cholesterol levels had declined an average of 26 percent in the treated group, as opposed to 4 percent in the control group. Heart disease had progressed 38 percent in the treated group and 61 percent in the control group. The study showed that 16 percent of those in the treated group experienced a shrinkage of arterial lesions, compared with 2 percent in the control group.

"Cholesterol lowering not only slows down the progression of atherosclerotic lesions, but also leads to their shrinking or regression," said Dr. Basil Rifkind, chief, Lipid Metabolism- Atherogenesis Branch, Division of Heart and Vascular Diseases, NHLBI.

He said the study illustrates that treatment following bypass surgery should routinely include steps to lower blood cholesterol levels.

About 200,000 Americans currently undergo the surgery each year. Forty-four percent of these Americans will develop heart disease or die within 10 years of surgery, even with the best possible care. Lowering blood cholesterol levels can reduce the risk of heart disease and lengthen life expectancy.

An NHLBI website for the public, www.nhlbi.nih.gov/health/public/heart/cholesterol/index.htm, provides further information on lowering cholesterol levels with diet and drug therapy.
Resource Center Extends Hours

The User Resource Center, which provides a variety of personal computer training and information services, has expanded its hours of operation.

The new hours are: Monday-Thursday 8:30 a.m.-9 p.m., Friday 8:30 a.m.-4:30 p.m., Saturday 9 a.m.-3 p.m.

The multi-purpose center contains six PC workstations for individual practice and self-instruction, and a classroom where up to 20 persons can receive hands-on training on 10 additional workstations.

Its resource library contains a collection of software packages, self-study courses, and periodicals and books on PCs and office applications.

The URC is located in Bldg. 31, Rm. B2B47 and is open for walk-in use. For information, advice on training curricula, and to reserve personal computers for self-instruction and practice, call 496-5025.

Laqueur Fellowship Created for Summer Students

A summer student fellowship has been established at NIH as a memorial to Dr. Gert L. Laqueur. Laqueur, who served the National Institute of Arthritis and Metabolic Diseases for a quarter century, died of a heart attack in Los Angeles on May 5, 1986.

Born in Strasbourg, France, he received his doctor's degree in medicine from Freiburg University in Germany in 1937. After serving for a year as research assistant under Professor von Mollendorf in the department of anatomy at the University of Zurich in Switzerland, he came to the United States in 1938, and became a citizen in 1943. He taught and did research at Stanford University until 1950, the year he came to NIAMD.

From 1954 to 1957, Laqueur was chief of pathology at the Atomic Bomb Casualty Commission in Hiroshima, Japan, where he conducted followup studies of the survivors of the atomic bomb explosion. In 1961, he became chief of the Laboratory of Experimental Pathology of the NIAMD, and in 1962 was promoted to the grade of medical director, U.S. Public Health Service.

His lifelong scientific interest was the understanding of human and experimental patholgy. Between 1960 and 1970, his pioneering investigation of cyscin, a liver toxin found in an ancient family of trees and shrubs, established this compound as a powerful carcinogen. Among Laqueur's numerous contributions, his demonstration of the importance of intestinal bacteria in converting cyscin into its toxic and carcinogenic metabolite stands out as an illuminating prototype of investigations into the metabolic activation of carcinogenesis. Germ free rats have no bacteria in their intestines, so they can eat cyscin without ill effect.

He and his colleagues put into the intestines of these rats strains of bacteria known to split certain chemical substances (glucosides). These animals developed liver injury and tumors.

Most of all, Laqueur will be remembered as a wise, compassionate man. He inspired and guided many young pathologists who came to his laboratory from all over the world toward professional dedication and excellence. At the same time, he raised three daughters who have the same personal qualities.

Persons wishing to make contributions in his name may send donations to the Gert L. Laqueur Summer Fellowship sponsored by the Foundation for Advanced Education in Sciences Inc., Bldg. 10, Rm. B1L101, Bethesda MD 20892. —Charles McGutchan

Volunteers Needed for Pregnancy Study by NICHD

The NICHD is seeking first-time pregnant women and their spouses for a project concerning emotions and feelings, including tension or worries, during pregnancy. Volunteers are needed close to the 28th week of pregnancy. For information call Nancy Gist, 496-6832.

The NIH Record

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NHI Record Office
Bldg. 31, Room 2B-05
Phone 496-2125

Staff Correspondents:
CC, Diane Price
DCRT, Jean P. Sobel
DRG, Sue Meadows
DRS, Michael Florbart
DRS, Jim Doherty
FIC, Susan P. Scarp
NGI, Patricia A. Newman
NEI, Claudia Feldman
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Neurologist Assesses Eye, Brain Injuries in Boxers

There is very preliminary evidence that as many as 1 in 6 professional boxers may suffer some of the same neurologic problems as Muhammad Ali. Other evidence suggests that 1 in 5 boxers sustains vision-threatening injury.

These blows against the sport of boxing were thrown by Dr. Lawrence Charnas, a neurologist and medical staff fellow in NICHD's Human Genetics Branch; he also serves as neurologic consultant to the Maryland State Athletic Commission. His recent lecture on neurologic injuries in boxing drew an interested crowd, probably because its title included the terms, "Leonard vs. Hagler."

Before Charnas dumped a bucket of cold reality on the proceedings, passions in the audience ran high:

"[Hagler-Leonard] was so clearly a draw."

"Hagler threw more punches."

"The best thing about the fight is that both men may retire."

Declaring that he would neither defend nor attack the sport, Charnas detailed the two most harmful sequelae of boxing—eye and brain injuries.

According to a study of 166 professional boxers under age 35 who fought in Atlantic City, 13 percent showed evidence of early cataract formation. Cataracts, Charnas explained, form inside the lenses of eyes exposed to repeated blows. Seven percent of the fighters suffered retinal holes and tears.

"A total of 20 percent of the fighters examined showed evidence of vision-threatening injury," Charnas said, noting that the eye exams were conducted without the benefit of dilation.

A New York study of boxers whose eyes were dilated as part of an ophthalmologic examination showed that 25 percent of them had damaged retinas.

Turning to brain injuries, Charnas broke them into two categories, acute and chronic.

Acute injuries include "stun," knockout (concussion), subdural hematoma, intracerebral hemorrhage, axonal injury (nerves twisted apart by the sudden rotational acceleration that occurs when a head snaps back from a punch), and even death.

"The brain probably doesn't like any head blows at all," said Charnas. "I think that's a reasonable assumption."

Most of the acute brain injuries in professional boxing involve less than 5 minutes of post-traumatic amnesia, Charnas said. "In all but a small fraction—less than 5 percent—of all knockouts, consciousness is regained in less than 30 seconds."

But, he cautioned, any injury producing amnesia must be considered serious.

Currently unknown is how detrimental boxing is to neurologic health in the long run. Also unclear is how best to measure evidence of boxing-related deficits and how to identify boxers at greater than average risk for long-term injury.

Several terms have developed over the years to describe the onset of a chronic clinical syndrome sometimes called "dementia pugilistica." Charnas prefers the term "chronic encephalopathy of boxers."

Clinical signs of CEB include dysarthria (slurred speech), mild spasticity, tremor, gait ataxia (wobbly walk), dementia, uncontrolled rage and morbid jealousy syndrome (which apparently affected Jake "The Raging Bull" LaMotta). Early symptoms include alcohol intolerance, loss of motor skills, and even brushes with the law due to personality changes.

Charnas further described damage discovered in the brains of deceased boxers, including scars, atrophy and neurofibrillary tangles (a pathology also associated with Alzheimer disease, although without the characteristic plaques).

"A definitive study has not been done on how often a clinical syndrome develops," Charnas said. Some "experts" think it occurs within a range of 1 in 14 to 1 in 6 fighters.

"The natural history of the progression of subclinical deficits is unknown," he concluded.

Boxing has been banned in three countries so far: Norway, Poland and Sweden. Eight major medical associations, including the AMA and the British Medical Association, oppose the sport.

Charnas, who has testified before legislators in Annapolis on the need for neurologic testing for boxers, said that medical supervision of the sport nationwide leaves much to be desired.

Only two of the top six boxing states in the U.S. require a postbout exam. Although all states require prefight physical exams, most are conducted perfunctorily, he said.

The top six boxing states, accounting for 60 percent of the country's bouts, are New Jersey (1,342 contests in 1985 and 1986), California (1,338), Texas (582), Florida (522), Nevada and New York. Charnas said that political effort concentrated on these states could have significant impact on the sport.

To discourage young athletes from putting their brains and eyes in jeopardy, said one of the listeners exiting Charnas' talk, "You've got to get the prize money out of it."

Charnas' advice was more blunt: "If you like the way your face looks, don't box."
A Long Way From Home

Fogarty Branch Makes Foreign Scientists Welcome

By Lisa Datta

It is readily observable that many foreign scientists work in NIH intramural research laboratories. In 1986, more than 2,000 foreign scientists from approximately 70 different countries did research here.

Some people might wonder what happens to a foreign scientist when he or she arrives at the airport, suitcase in hand, ready to assume responsibilities. At this stage the Foreign Scientists Assistance Branch of the Fogarty International Center steps in to provide invaluable service. The FSAB is the first office that a foreign scientist must visit after arrival. The senior NIH scientist sponsoring the visiting researcher usually accompanies him or her on this essential stop.

The assistance that FSAB provides generates a “phenomenal amount of paper work,” says Wanda “Claudie” Pifer, chief of the 10-member staff operating from the International Cottage next to the Stone House. And complications do arise. Scientists have been known to arrive in the United States only to be refused entry because some crucial document was missing.

Some countries from which scientists are invited make it difficult to bring children, spouses or other family members to the U.S. In such situations, the FSAB is expected to sort out tangled affairs. With so many crises requiring immediate attention, it was not surprising to find the staff in a flurry of activity late on a Friday afternoon, when the atmosphere in most offices is relaxed.

Despite the hectic conditions under which they work, Pifer and her staff expressed satisfaction with the opportunity to interact with people from many areas of the world. As one of the program assistants aptly said, “it’s not all paper work, it’s dealing with people.”

One of many foreign scientists who has come into contact with the FSAB staff is Dr. Giampaolo Tortora, a visiting fellow from Italy who has been working at the National Cancer Institute for nearly a year. Tortora provides a relatively upbeat picture of life as a visiting foreign scientist in America. He says that although some separation from friends and loved ones is inevitable, he “cannot complain about solitude.”

Scientists who are strangers in a strange land form a community unto themselves. Tortora says he enjoys spending evenings in the company of fellow visiting scientists. Like the program assistants who administer the various programs, Tortora appreciates the opportunity to meet people from other countries.

The programs also build a “bridge of relationship” with American scientists, says Tortora. Even after a foreign scientist has returned home, he or she may come back to NIH to finish work or attend meetings. By the same token, American scientists sometimes travel abroad to renew contacts and continue the exchange of information.

Tortora plans to return to Italy at the end of his fellowship. He says the techniques he learned at NIH will help him organize a lab at the hospital where he works in Italy.

Foreign scientists are invited through the NIH Visiting, Guest Researcher, and Special Experts programs, and appointments are made throughout the year. In 1986, more than 2,000 persons participated in these programs. They were selected from such countries as Japan, Italy, the United Kingdom, India, China and France.

Although the FSAB is primarily concerned with immigration matters, it also helps visiting scientists adjust to life in a new and sometimes confusing country. For example, the FSAB provides an international income tax consultant on a daily basis during tax-filing season and 2 days a week at other times. Even before a researcher’s arrival, FSAB sends a handbook giving useful information on what to expect before and during the visit.

In addition to its various official functions, the FSAB helps foreign scientists in many informal ways. Since approximately half of the scientists are married and bring their families with them, there is much advice to be dispensed on finding babysitters, schools, doctors and the like.

The FIC recently created a new position—volunteer coordinator—and appointed Sandra Roberts (see sidebar), a specialist in supervising volunteer workers, to fill it. Roberts and her staff will help foreign scientists find housing, schooling and other necessities of life, thus reinforcing the support that FSAB provides.

Roberts Named Volunteer Coordinator

Sandra B. Roberts, a former member of the Montgomery County Commission for Women who has specialized in developing volunteer worker programs for the past 6 years, has joined the staff of the Fogarty International Center as volunteer coordinator.

Roberts, who also is the immediate past president of the Montgomery County Association of Volunteer Coordinators, will create a program at Fogarty for a corps of unpaid volunteers to help make foreign scientists feel at home at NIH.

“Sandy Roberts knows the people and service organizations locally who can help our foreign scientists with problems they may have, and she has the skills to create an effective volunteer program,” said Dr. Craig Wallace, FIC director, in announcing her appointment.

A veteran of five major family moves in 22 years, Roberts has—to use her own words—“a keen sensitivity to the trauma of transition and the stress involved, as well as the support services needed.”

While working for Montgomery County, she coordinated a corps of more than 140 volunteers who provided more than 5,000 clients with in-person services and 10,000 telephone services in the past year—with a paid staff of four.

A native of Cooper, Tex., Roberts holds a B.A. degree in business administration and an M.A. in organizational psychology from San Francisco State University. Her husband, Michael, a dentist, is a PHS officer with the National Institute of Dental Research.

Her office is in the basement of Bldg. 16A, and her telephone number is 496-7357.
Who Is the Boothbay Lobsterman?

By Maureen Mylander

Although it was only 11:30 on a chilly Friday morning, customers already were lining up. The Boothbay lobsterman, Mike McConnell, wrote “Culls—$4.99 lb; Chix—$3.99 lb” on a sign. It was attached to the truck he had just driven about 200 miles with its cargo of five lobsters from Boothbay—a coastal town about 75 miles northeast of Portland, Maine—to the 31G parking lot. (He has since relocated to a shadier spot across from Bldg. 14A.)

Culls are lobsters with only one claw, he explained. “In July the price comes down to $5.99 a pound. They usually sell by noon.”

Mike, he added, “are 1-pound lobsters with two claws.”

“I’m back,” a woman announced and asked for 2 pounds of medium Maine shrimp. “In a food store, these are called large,” she said.

“I carry fresh Maine shrimp December through March,” Mike noted, “and fresh Gulf shrimp from late June to December.”

More customers arrived. One of them, Nicole, offered to help Mike behind the “counter” of crates and coolers, and give him a few minutes to tell the Record about the finer points of lobsters, about how he came to NIH, and, most of all, about himself.

Between January and June, Mike’s crusing and selling. According to Mike, the only newly caught lobsters in Maine at that time of the year, he says. The lobsters head for deeper waters in winter. “It’s wicked cold and wicked dangerous out there,” Mike adds. “The lobsters burrow in and wait until it warms up, and I just do the same.”

In summer, Mike sets his traps in saltwater rivers and bays near Boothbay and sells the lobsters he catches.

For nearly 2 years, he has air freighted or personally delivered his lobsters in a white Isuzu truck that he insulated himself. The secret of successfully transporting live lobsters, he says, is to keep them cold and wet. “I send them at least 12 hours a day,” he says. The lobsters are not fed during the trip, he says, and the temperature in the truck is kept at about 30 degrees Fahrenheit.

On alternate Thursdays, Mike gets up at 6 a.m., loads lobsters and a seaweed not found in these parts, picks up Maine shrimp or other shellfish in season from a nearby town and, at about 4 p.m., heads south. He sometimes stops in Jessup, Md., to pick up shrimp or oysters, and arrives at NIH by 7:30 a.m.

“I start out for 2 hours in the truck, and at 9:30 begin selling until 6:30 p.m. Then I deliver orders to local restaurants until about 10:30 p.m.” After spending the night with Lou and Mary Novick, Mike sells lobsters in Potomac on Saturday, and is back home with his wife, Karen, and sons Ian and Adam, by 3 p.m. the next day. In a classic example of flextime, Mike works 70 hours in 5¾ days.

Despite his work ethic, Mike prefers his role as a family man. “I choose to spend 10 days at a time with my family rather than come down to Washington every week.”

The NIH connection can be traced to a series of events that began when Mike, a Californian who grew up in an orange grove near Disneyland, moved to Chicago. In 1974 he paid $2,500 down for an apartment building that cost $26,000. “It was a wreck,” he says. “I fixed it up and sold it a year later for $65,000.”

Mike continued in real estate until 1978, when destiny and an urge for fresh air and better surroundings nudged him to take a solar building course at the Shelter Institute in Bath, Me. “I fell in love with Maine, bought a lot on the water, and built a house and a cottage.”

Soon after, a vacationing former NIH employee, Randy Higgins, called the Boothbay Chamber of Commerce to find a place to rent, and rented Mike’s cottage. Randy so enjoyed the Maine lobsters during his vacation that he talked Mike into bringing a truckload to Rockville to sell. Someone suggested that Potomac would be a better location. Mike got permission from the Safety manager in Potomac to sell lobsters in the parking lot. The store later added a seafood department, and Mike moved to his present location at MacArthur Blvd. and Falls Rd.

While Mike was selling lobsters in Potomac one Saturday, he met another Randy who manages NIH’s Re&W Association. Randy Schools had heard about Mike from several NIH employees, and one Saturday drove to Potomac to investigate. He liked what he saw and invited Mike to sell his lobsters at NIH. The next season, Mike took up Randy’s offer and agreed to give part of his proceeds to the Re&W Association, which distributes the money to the Patient Emergency Fund, Camp Fantastic, and other NIH activities. As the long lines of people carrying coolers on Friday afternoons attest, Mike’s been doing business here ever since.

Rudomin Wins Prize

Dr. Pablo Rudomin, professor of neurophysiology at the Center for Advanced Studies of the National Polytechnic Institute of Mexico and a Fogarty scholar-in-residence, has been awarded the Prince of Asturias Prize for 1987.

This prize is the most important science award in the Spanish-speaking world. He is being honored for his work on “the mechanisms of information transmission in the central nervous system.”

Rudomin has spent two terms at the Fogarty International Center in 1985 and 1986. He will return for a third term in 1988. During his Fogarty scholarship, he has been associated with Dr. Robert E. Burke, chief of the Laboratory of Neural Control, NINCDS.
Rep. Claude E. Pepper, House Select Committee on Aging, was presented a special scroll making him an honorary centenarian until Sept. 8, 2000, when he will become a true member. In thanking the centenarians for this honor, he said, "I feel these people are the real VIPs of America."

Senators John Glenn and John Heinz, members of the Senate Special Committee on Aging, dropped in to honor the centenarians also. "Together in this room, you have 1,500 years of experience in this country. I think it's great," said Glenn.

DHHS Secretary Oris T. Bowen described older people as the candles of America and said we must guard against the flickering of the light.

Two silver dollars, one minted in the year 1887 and one from 1987 were presented to Dr. William F. Raub, deputy director of NIH and to Drs. Bowen and Windom as reminders that "like coins, people increase in value as they age."

Congressman Edward Roybal, chairman of the House Select Committee on Aging, was presented an award in Spanish by centenarian Juana Aguilar. Aguilar came to the United States 8 years ago from San Salvador at the age of 92. Today, 3 of her 12 children are still alive, and in her family alone there exist five generations.

Awards were also presented to Glenn, Heinz, Windom, Bowen, and Pepper, by various centenarians.

Williams stated, "We have learned a lot from this group because we have not had many reach 100 years before this time."

Centenarians are of great interest to both the public and the scientific community. Everyone wants to know just what it is they do or don't do that enables them to live so long. Here are a few of their answers.

Cooke, whose mother died at 49, has never been in the hospital overnight. Her most serious illness, she says, was diphtheria at the age of 15.

"I worked for the Red Cross for 46 years and went from house to house taking care of people. I looked after those in need and shared with them. That's why the Lord has looked after me," she says.

Cooke, who lives alone, does her own cooking and cleaning. Of her six children, four are still living, and she has 19 grandchildren and 21 great-grandchildren. She served as Eastern Star secretary for 37 years and still gets around to visit friends.

"I think learning to get along with people is very important. When we came along we had to learn to deal with everything and try to see the other side of things," she says. Her advice: "Stay calm and take things as they come."

Ayers and Edna Tyack (103 years) of Great Falls, Va., are planning to get together in the near future for a visit. They met for the first time at the celebration.

Elise Patton (100 years), one of 12 children born to her parents in Iowa and now a resident of Arlington, Va., believes electricity was the greatest invention during her time. Patton was one of the first women mail carriers under the Civil Service. Her words of wisdom: "Do the best you can, keep on going, and don't look back."
Carrie Enhancement Network Established

The Women's Advisory Committee of the Federal Women's Program in NIH's Division of Equal Opportunity is sponsoring a career enhancement network composed of volunteers from various occupational specialties. The establishment of this network resulted from the positive responses of employees to the occupational role models who were available at the last four Career Days sponsored by the committee.

The purpose of the network is to provide an information resource for NIH employees who are interested in obtaining guidance in regard to entering or advancing in particular job series or who are seeking advice on how to enhance their current careers. While "mentoring," in a formal sense, is not a specific objective of the network, mentor relationships can informally evolve from these contacts.

Individuals interested in serving as network members are referred to the Federal Women's Program Manager by Women's Advisory Committee representatives and other network members. The names of volunteers and the information they provide concerning their experience and availability is maintained only by the Federal Women's Program Manager.

Any employee desiring referral to a network member may contact Linda Morris, acting NIH Federal Women's Program Manager, directly or indirectly through a Women's Advisory Committee representative. Each referral is made on a case-by-case basis to a network member with experience corresponding to the requestor's interests and only when the member has indicated availability. The individual requesting referral is responsible for initiating contact with the network member. Meetings can take place during nonduty hours with the agreement of the network member and the employee requesting assistance or during duty hours with the agreement of the respective supervisors.

Supervisors are encouraged to arrange work schedules so that employees can utilize this service for reasonable periods of time. For further information on this new resource, contact Morris, Bldg. 31, Rm. 2B40, or call 496-2112.

Male Volunteers Needed

Men, ages 20-60, are needed for studies in the National Institute on Alcohol Abuse and Alcoholism. Participants must be in good health, on no medication and without a personal or family history of alcoholism or mental illness. For more information call Dr. Ted George, 496-0983.

Mary Bryan (101 years), a native of Georgetown, remembers the streetcars fondly since her father was a conductor. She never smoked or drank and she feels, "Children have kept me young."

Ellsworth Opie (100 years) lives in Alexandria, Va., and says he hasn't smoked since Cuban cigars were banned. "Always be interested in something and keep your mind going," he says.

Lon Robinson (101 years) was born in Louisiana, the son of slaves. He remembers laying railroad tracks throughout the South. He considers television to be the greatest invention of the past century. "Living right with God," is his advice.

Mamie Cleveland (102 years), a native of Fairfax County, Va., never drove a car. She thinks home heating was the most important change that took place in her lifetime. She recalls how cold her old stone house got in the winter. "Be nice to people," she says as her advice.

Frances Taft Pyke (100 years) was born in Peking, China, to missionaries and came back to the U.S. after World War II. Because of her travels, she considers the advances made in modes of transportation to be the biggest change in society during her lifetime. Pyke has never smoked, is an avid reader and still visits her friends. "Concentrate your interests outside of yourself. Think of others," she says.

Dr. James Madison Moser (100 years), a native of Madison, Va., witnessed the launching of the Wright Brothers' first airplane in 1906. A medical doctor who practiced until age 85 and a colleague of both Williams and Windom, Moser says, "I never smoked." His goal is to live another 13 years in order to have lived across three centuries.

Perhaps Moser will meet his goal as it is NIA's primary concern to provide each individual with the potential for leading a healthy and productive life during the later years—out to 100 years and beyond.

Mr. and Mrs. She recalls hearing neighbor Harry Truman play the piano. Eleanor Ayers (101 years) says Cuban cigars were banned. "Always be interested in something and keep your mind going," he says.

Dr. James Moser (r) receives his remembrances of the celebration from Windom. Moser considers the biggest change in his lifetime to be the development of antibiotics.

Dora Zins (103 years) was born in Russia but came to the U.S. when she was not yet 2 years old. Her family worked in show business and she recalls many fun times. She remembers when sidewalks were rounded off to prevent automobiles from bumping into the existing square corners. "I can't give you a recipe to live long—life is how you live, how you sleep, how you eat, how you drink, how you work—life is what you are," she says.

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Brogan Named NIH Handicap Program Manager

Joan D. Brogan was recently named NIH Handicap Program manager in the Division of Equal Opportunity, Equal Opportunity Branch. She will be responsible for managing the NIH Handicap Program and will serve as NIH’s spokesperson on matters pertaining to all aspects of employment of physically and mentally handicapped individuals.

Brogan joined the Equal Employment Opportunity staff after serving for 5½ years as the command deputy EEO officer, Military Sealift Command, Department of the Navy, headquartered in Washington, D.C. Prior to this position, she was an employee development specialist in the Office of Personnel and an EEO specialist in the Office for Civil Rights. She is the Handicap Program manager in the Division of Employment and Training, she was an employee development specialist in the Office of Personnel and an EEO specialist in the Office for Civil Rights, National Oceanic and Atmospheric Administration (NOAA).

She began her involvement with the federal government’s Handicap Program while at NOAA in the early seventies as a training officer responsible for designing and conducting supervisory and EEO awareness training courses that included modules on the recruitment, hiring, and placement of handicapped individuals and requirements for reasonable accommodation and facility accessibility.

In 1982, when Brogan transferred to the Military Sealift Command, she organized the first Handicap Program Committee and developed the command policy and an affirmative action plan for the handicapped that covered 1,500 shore side employees and 6,000 civil service mariners; both the policy and plan required adaptations to the duties and work environment of mariners serving on Navy ships.

One of her goals at NIH, as it was at the Navy, is to make a viable Handicap Program that can be implemented throughout the organization. She feels that NIH can be a model employer of handicapped individuals.

Krueger Retires After 24 Years with NIDDK

Dr. Kerth Krueger, NIDDK’s Diabetes Centers Program director, retired June 12 after 24 years with the institute. During her tenure, Krueger was especially recognized for her role in shepherding the growth of NIDDK’s diabetes research program over the last decade.

Her retirement coincides appropriately with the publication of the first update since 1975 of the congressionally mandated Long-Range Plan to Combat Diabetes. While director of NIDDK’s diabetes research program, she served as executive secretary for the national commission that developed the plan. This blueprint has guided federal efforts to combat diabetes, an initiative that has yielded many important scientific advances.

Krueger came to the then National Institute of Arthritis and Metabolic Diseases in 1963 as scientific communications officer in the office of the associate director for program analysis and scientific communication. In that capacity, she oversaw the publication of five periodicals that provided literature citations and abstracts to researchers in arthritis, gastroenterology, endocrinology, diabetes, and artificial kidney research. She was also project officer for the Artificial Kidney-Chronic Uremia Program.

In 1977, she became the first and, until now, only director of the institute’s Diabetes Centers Program. Since 1974, she has also served as executive secretary of the Diabetes Mellitus Interagency Coordinating Committee.

In recognition of her success in carrying out these demanding responsibilities, Krueger received a PHS Special Recognition Award in 1976 and the NIH Award of Merit in 1984. In 1985 she was awarded the American Diabetes Association’s Charles H. Best Medal for outstanding service to the field of diabetes.

Dr. Ernest W. Johnson, director of NIDDK’s Division of Diabetes, Endocrinology, and Metabolic Diseases said, “Unfortunately for us, Dr. Krueger takes with her the insight and judgment of many years’ experience in biomedical science and in the diabetes program in particular. We’re very sorry to lose her, but wish her the very best in her retirement.”

Mildred Brosky Dies; Former NIAID Employee

Mildred Brosky, secretary to one of the early directors of the National Institute of Allergy and Infectious Diseases, and administrative secretary to a vice president of the United States and to members of the cabinet, died recently in Washington, D.C. She was secretary to Dr. Justin Andrews from 1957 until his retirement in 1964. She retired from government service 2 years later, after having worked in NIAID’s Information Office.

Early in her career, Brosky was administrative secretary to Henry Wallace when he was Secretary of the Department of Agriculture, moving with him to the White House in 1941 when he was elected Vice President of the United States. Immediately thereafter, she went with Wallace to the Department of Commerce where he served as its secretary for 2 years.

She remained at Commerce as administrative secretary to two successive cabinet members—Averell Harriman and Charles Sawyer. She then interrupted her government service to raise a family, resuming her career in the late 1950’s at NIAID.

Brosky is remembered by former NIAID staff members as an unselfish and loyal worker who later dedicated her life as a health volunteer to the elderly.

NINCDS Seeks Volunteers

NINCDS is seeking healthy men and women, ages 18 to 45, to participate in medical research studies.

Participants must be unmedicated and free of medical and neurologic illness. Financial compensation will be provided.

For further information, contact Dr. Orrin Devinsky, 496-1923.
Rush Reaches Milestone, Called 'Outstanding'

The NIH chapter of Blacks in Government has awarded its 1987 Career Milestone Award to Arthur Rush Jr., an administrative officer in the National Institute of Dental Research. He was honored for his "outstanding career achievement through perseverance, courage, and dedication in spite of adverse odds."

When asked what the "adverse odds" were, Rush laughed and replied, "I guess they were me." His personal philosophy, he says, is that "the only real obstacles are the ones we impose upon ourselves."

He started working at NIH in 1978 as a janitor. Two years later, he entered the Stride program under the sponsorship of NIDR, and subsequently graduated from American University with a B.S. in business administration. While attending school, he also underwent training at NIDR for a position as an administrative officer. Today he holds that position in the institute's Epidemiology and Oral Disease Prevention Program.

In his free time, Rush counsels youths and adults with drug, alcohol, and related problems. He works as an aftercare counselor at the Melwood Farm Alcohol and Drug Treatment Program, and is a consultant and trainer for the Archdiocese of Washington and the D.C. Mayor’s Youth Leadership Program. He is currently developing an Employee Assistance Program for the Prince George’s County volunteer fire department.

A Vietnam veteran, he is a founding member of the Veterans Administration Narcotic and Alcohol Treatment Association (VANATA) Reunion, Inc. Together with Reginald Warefield, he also founded “Meet the Challenge,” a program aimed at preventing problems such as substance abuse, suicide, and teenage pregnancy. Meet the Challenge works with youths and adults referred by churches, schools, and social organizations. It has conducted numerous workshops in the Washington area, as well as in Kansas City and Delaware.

Rush has received a number of awards during his 9 years at NIH, including a Superior Performance Award, two EEO Special Achievement Awards, two CPC Special Service Awards, and the 1987 CPC President’s Award. His goals for the future include becoming an executive officer and expanding Meet the Challenge.

FAES Offers Grad Courses

The FAES Graduate School at NIH announces the schedule of courses for the fall semester. The evening classes sponsored by the Foundation for Advanced Education in the Sciences will be given on the NIH campus.

Tuition is $40 per credit hour, and courses may be taken for credit or audit. Courses that qualify for insitute support as training should be cleared with the supervisors and administrative officers as soon as possible.

Courses are offered in biochemistry, biology, genetics, chemistry, physics, mathematics, medicine, pharmacology, toxicology, immunology, microbiology, psychology, psychiatry, statistics, languages, administration and courses of general interest.

It is often possible to transfer credits earned to other institutions for degree work, and many courses are approved for AMA category 1 credit.

Classes will begin Sept. 21; registration will be held Sept. 9–15. Fall schedules are available in the Graduate School office in the Clinical Center, Rm. 2C207A and in the Foundation Bookstore, Rm. BIL101. To have one sent, call 496-7977.

Sweet News

Since the FDA approved aspartame (Nutra Sweet) for use in soft drinks, there have been several reports of allergic reactions to it.

NIADD is conducting a controlled study to determine types of adverse reactions, and needs volunteers. Normal volunteers as well as people who get hives or other types of immediate allergic reactions are needed. If you are between the ages of 18 and 50 and are interested in participating in this study, contact Dr. Margarita Garriga, 496-8999.

For his gifts as a teacher, clinician, theoretician, and bench scientist, Dr. George P. Chrousos received the Endocrine Society’s Richard E. Weitzman award at the society’s annual meeting in June. The award honors outstanding achievements in the field of endocrinology and metabolism by a young investigator.

Chrousos came to NICHD’s Developmental Endocrinology Branch in 1978, where he began work to understand why some patients are resistant to the effects of glucocorticoid hormones. Chrousos and his colleagues were the first to identify the mechanism of glucocorticoid resistance in humans, which quickly led to the treatment of this disease. He also studied the role of the brain hormone CRH in physical and emotional stress, psychiatric illness, and Cushing’s syndrome. He and his colleagues were first to develop a widely used CRH test to distinguish clinically similar hormone disorders.
Dr. Robert L. Bruun, former associate hospital administrator of the Clinical Center, was recently appointed executive officer of NIAMS. A PHS commissioned officer, Bruun has previously served as executive officer of the Baltimore Public Health Services Hospital for 7 years. He holds an M.B.A. degree from George Washington University and a doctor of science degree in health services administration from Johns Hopkins University.

FAES Stipends Available

FAES is administering special funds known as Wellcome Stipends to augment the stipends of post-doctoral-level guest workers at NIH. Depending on the amount of available funds and the number of eligible applicants, each approved individual may receive a maximum of $3,600/year ($300/month) as an income supplement to a maximum total family income of $15,000/year plus $1,000 for each dependent, including spouse.

The selection committee will consider the scientific merit of the research as well as the needs and professional qualifications of the applicant.

Awards will be made twice a year, Mar. 31 and Sept. 30 for the 12-month period beginning Apr. 1 and Oct. 1, respectively. Applications for 1987 must be received in the FAES office by Mar. 6 or Aug. 31 for the March and September awards, respectively. Applications are being accepted now for the awards to be made on Sept. 30.

Interested individuals can pick up applications in the FAES office (Bldg. 10, Rm. 2C207A) or call the office at 496-7975.

Dr. Robert M. Pratt Dies

Dr. Robert M. Pratt, Jr., 44, chief of the experimental teratogenesis section at NIEHS, died in his sleep June 13, in Aurora, Colo.

He had stopped in Aurora to visit his mother on his way to a scientific meeting in California. Married and the father of four children, Pratt had been in good health; his death came as a shock to his family, friends and colleagues. He lived in Chapel Hill, N.C.

Pratt was an internationally recognized scientist whose work centered on the craniofacial development of the fetus, and, how, at the molecular level, growth factors relate to coordinated development of the normal fetus.

Before joining the Laboratory of Reproductive and Developmental Toxicology in 1980, he worked for 10 years at NIDRR. While there he was chief of the craniofacial development section in the Laboratory of Developmental Biology and Anomalies. He received the NIH Outstanding Service Award for his accomplishments in research and was the author of more than 100 scientific articles and nearly as many abstracts.

Since joining NIEHS, he was designated as a scientific representative to visit the People's Republic of China where, with other U.S. scientists and clinicians, he conferred with the Chinese medical and occupational health community on health hazards in the workplace.

He completed his bachelor's and master's degrees in biology and biochemistry at the University of Colorado, and his Ph.D. in biochemistry at Boston University. At the time of his death, Pratt was an adjunct professor at the University of North Carolina at Chapel Hill. He had also served in adjunct positions at George Washington University and George-town University, and as a collaborating scientist at Yerkes Primate Center, Atlanta, Ga.

He also served on the editorial boards of major scientific journals in his area of expertise.

A memorial service was held June 17 in Chapel Hill.

DRR Sponsors Silver Anniversary Lectures

"Contributions of Biomedical Research to Animal Health" will be the topic of five lectures sponsored by the DRR Silver Anniversary Panel, a celebration of 25 years of service to the NIH extramural research community.

They will be given on July 23 from 2:30 to 4:30 p.m. in Wilson Hall, Bldg. 1.

Providing the keynote presentation will be Sir William Henderson, former executive head of the British Agricultural Research Service and fellow of the Royal Society of Edinburgh, whose lecture is titled, "The Potential of Biotechnology for Improving Animal Health and Productivity."

The other four invited lecturers and their topics are: Dr. Milton Wyman, assistant dean, College of Veterinary Medicine, Ohio State University, "The Laboratory Animal—Its Contribution to Vision Research"; Dr. Daniel H. Minn, scientific director, Diabetes Research Institute, and professor of medicine, University of Miami School of Medicine, Miami, "Reversal of Spontaneous Diabetes in Animals by Transplantation: Immunological Considerations and Future Directions"; Dr. John G. Vandenbergh, professor and head, department of zoology, North Carolina State University, "Coordination of Reproductive Behavior and Physiology in Rodents and Nonhuman Primates"; and Dr. Gordon H. Theilen, professor of surgery, School of Veterinary Medicine, University of California, Davis, "Study of Naturally Occurring Neoplasms in Outbred Animals: Their Relevance to Past and Future Biomedical Advances."

The moderator for the lectures will be Dr. William Gay, director of the DRR Animal Resources Program.

We may be tossed upon an ocean where we can see no land—nor, perhaps, the sun or stars. But there is a chart and a compass for study, to consult and to obey. The chart is the Constitution.

Daniel Webster
Flow Models Aid in Drug Therapy

By Jim Doberry

A widely used method of drug administration is to infuse a drug solution from a catheter into the bloodstream. For example, cancer chemotherapy drugs can be sent in this way directly to specific tumors. But things don’t always work exactly as intended.

Engineers in the Biomedical Engineering and Instrumentation Branch (BEIB), DRS, are using transparent plastic or glass models of human arteries to solve problems with drug delivery through the bloodstream.

The BEIB models show what happens when a drug solution leaves the tip of a catheter located within a blood vessel. A dye represents the drug, and a glycine-water solution represents the blood. In many situations the drug solution remains in a separate stream instead of mixing with the “blood” as desired.

Dr. Robert Lutz, John Boretos, and co-workers in BEIB’s Chemical Engineering Section first developed a model system to mimic flow patterns in the carotid artery (the principal neck artery) and its major branches. Pumps and a series of flow resistors and flow capacitors permit them to vary conditions at will.

The model was created to study a specific problem. Scientists at several research institutions have reported sporadic cases of retinal damage and localized brain toxicity following clinical trials when chemotherapeutic drugs for brain tumors were infused through an artery.

Lutz and his collaborators wanted to test whether inadequate mixing of solutions leaving a catheter tip can cause these problems.

They studied the flow of dye solutions at varying infusion rates and with several types of catheters at various positions in the model. They recorded the visual results on videotape and film, collected samples of the streams from the arterial branches, and determined the relative concentrations of dye in each branch.

Commonly used drug infusion rates are 2 to 4 milliliters per minute. The studies showed that at these rates the drug solutions emerge in stable streams that may send very different amounts of drug to the branches. The drug concentration may be toxic in one branch and too low to be effective in others.

Testing for interactions of incompatible drugs, Clinical Center nurses Judith Lorette-Collins and BEIB engineer Dr. Robert Lutz infuse drug solutions through separate channels of a double-lumen catheter into a glass model of the human venous system (vena cava).

Commonly used drug infusion rates are 2 to 4 milliliters per minute. The studies showed that at these rates the drug solutions emerge in stable streams that may send very different amounts of drug to the branches. The drug concentration may be toxic in one branch and too low to be effective in others.

The engineers have also developed a flow model of arteries in the liver. Both the carotid and the liver models are being used to test catheter designs and to develop better drug delivery methods such as faster infusion rates.

Lutz has also undertaken a very different use of the flow models in collaboration with Judith L. Collins of the Clinical Center Cancer Nursing Service: studies of what happens when two incompatible drugs are infused from separate tubes (“lumens”) in one catheter. In clinical care, it often becomes necessary to infuse multiple drugs into a patient because of complex care needs and poor access to veins. If these drugs are incompatible, they must be kept separate from one another in the bloodstream or the treatment will fail. Multilumen catheters are commonly used to achieve this. The model flow systems are being used to document the safety and efficacy of this method.

Side Effects Curbed

BEIB engineers and physical scientists have long been collaborating with Drs. John Doppman, Edward Oldfield, and Donald Miller and with other investigators in the Clinical Center, NINCDS, and NCI on projects to increase safety in clinical practice. They have created a system that filters chemotherapy drugs from the bloodstream after they have passed the tumor area. This reduces the chances of side effects from chemotherapy.

Lutz likes to mention that systems such as the flow model reduce the number of animals needed for experimentation. He likes even more to add that the flow models have provided data not readily attainable using animals.

Congressman David E. Price, (D) 4th District North Carolina, visits the architect’s model of Building 101 at the National Institute of Environmental Health Sciences in Research Triangle Park, with Institute Director Dr. David P. Rall, during a recent visit. Price visited the institute to become more familiar with its research programs as well as the scientific and economic impact of those programs on the people of North Carolina.

TRAINING TIPS

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

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SHARE TRAINING: An online catalog is available by accessing WYLBUR. Enter SHARE TRAINING. First time users only, enter: x ft k958x9cl.10 share (setup) on file 57.

To the laboratories throughout the world... may their order for liberty never cease until they have thrown off the chains of oppression...—July 4th Toast of the 1790’s
National Nursing Center Celebrates Anniversary

By Blair Gately

The National Center for Nursing Research, the newest addition to NIH, is celebrating its 1-year anniversary and is building a network of programs focusing on nursing research, according to its new director, Dr. Ada Sue Hinshaw.

"The center adds a different perspective and dimension to NIH," said Hinshaw, who started working at NIH in early June. "Its focus on patient care research complements research efforts of other scientific disciplines and brings the results into a different realm."

She envisions three priorities for the center:
- to build extramural programs to facilitate high quality scientific research;
- to increase research training and career development alternatives; and
- to collaborate with the institutes and throughs."

Created by Congress in 1985 and established by HHS Secretary Bowen in April 1986, the center funds research projects and disseminates information on nursing care research and training related to patient care. It currently has a budget of $19 million.

Nursing research includes studies relevant to the diagnosis and treatment of human responses to health problems and covers scientific inquiry into fundamental biomedical and behavioral processes relevant to nursing and investigations relating to nursing interventions in patient care.

The center's activities focus on health promotion and disease prevention, acute and chronic illnesses, nursing systems and management, and research training/career development.

According to Hinshaw, the center is currently sponsoring more than 100 research projects. Among those she cited are:

1. A study of the most effective means of providing oxygen to patients with chronic obstructive pulmonary disease;
2. Projects focusing on how best to provide home health care to patients with a variety of ailments, including Alzheimer disease and cancer; and,
3. A study designed to identify what factors are most significant in encouraging diabetics to comply with their dietary regimens.

Within the next year the center will encourage a program in the ethics of patient care. It will focus on issues of death and dying, transplantation, prolongation of life, and "daily clinical decisionmaking on patient care," Hinshaw said.

In a recent interview with the Record, she emphasized the center's mission: to augment the nursing science base that underlies effective patient care and efficient delivery of nursing services.

Prior to joining NIH, Hinshaw was director of research and professor at the University of Arizona College of Nursing while concurrently serving as director of nursing research in the nursing department of Arizona's Health Sciences Center.

She has spent most of her nursing career in academic settings and has administered research programs as well as conducted her own projects. She has published more than 80 articles and abstracts and has served on several professional and scientific committees, including the policy-making body of the American Nurses Association.

A core group of nine staff members at the center came from the Public Health Service's Division of Health Resources and Services Administration at Parklawn; the rest of the 20-member staff came from various NIH institutes.

Operations are currently in temporary quarters around the NIH campus at the Lister Hill Center and in Bldg. 31. There are plans to consolidate the offices in Bldg. 31 during the next few months, Hinshaw said. She added that the center has received approval to hire additional staff by the end of this fiscal year, enabling it to expand.

JNCI Wins Award

The Society for Technical Communication recently presented the staff of the Journal of the National Cancer Institute with an achievement award and a bronze plaque for their publication. The JNCI was an entrant in STC's International Technical Publications Competition held in Denver recently.

JNCI became eligible to enter the international competition by previously winning a Distinguished Technical Communication Award in the society's Washington D.C. chapter competition. In the international competition, JNCI was selected from 25 entrants in the category of complete periodicals. This was the first time that JNCI has competed on the international level.

JNCI is a monthly periodical devoted to experimental aspects of cancer research and is published by the Publications Branch of the International Cancer Information Center.

Legislators Tour NIH, Visit Scientists

Rep. Connie Morella of Maryland's 8th District visits Dr. Steven Rosenberg, chief of NCI's Surgery Branch, during a recent visit to NIH. Morella got an overview of NIH from Director Dr. James B. Wyngaarden and met several institute directors on a tour that included the CC and NHLM.

Sen. Barbara Mikulski of Maryland visited NIH on July 2 and got a briefing on NIH from Deputy Director William Rash (l) before taking a tour that included stops at AIDS research laboratories in the CC, including those of Drs. Anthony Fauci, director, NIAID, and Samuel Broder, associate director of NCI's Clinical Oncology Program.