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NIH Alumni Association

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NIHAA Update

Anderson To Speak At NIHAA Meeting

The annual meeting of the NIH Alumni Association (NIHAA) will be held on Saturday, Mar. 21, 1992, from 2 until 4:30 p.m. at the Mary Woodard Lasker Center, Bldg. 60. Dr. W. French Anderson, chief of NHLBI's Molecular Hematology Branch, will speak on "Human Gene Therapy."

Human gene therapy is a novel method of treating genetic disease. It involves removing defective cells from the body, correcting the defect by inserting a normal gene and then reinserting the corrected cells into the body. The corrected cells are then able to produce the previously missing gene product.

Anderson and his colleagues have used gene therapy to treat children with adenosine deaminase deficiency (ADA). ADA-deficient patients lack the gene responsible for the production of

*(See **Anderson** p. 2)*

Dr. W. French Anderson, chief of NHLBI's Molecular Hematology Branch, will speak at the NIHAA annual meeting on Mar. 21, 1992.

Sen. Barbara Mikulski beams with pride after receiving a new NIH lab coat from Dr. Bernadine Healy at town meeting II.

A 'Lofty Gripe Session'

Improvements for NIH Future Are Focus of Town Meeting II

By Rich McManus

So that future NIH may be better, present NIH endured a cold, hard look Nov. 25, 1991, when NIH director Dr. Bernadine Healy convened her second "town meeting" in two months.

Participating in the proceedings were Sen. Barbara Mikulski (D-Md.) and Dr. James O. Mason, HHS assistant secretary for health, who heard a panel of seven NIH authorities give a frank assessment of areas where the institutes could stand improvement.

Critiques focused on recruitment of junior scientists, retention of senior scientists, infrastructure problems, red tape in procurement and personnel, and ethics laws that were called "unfair and punitive."

*(See **Town Meeting** p. 20)*

NIH Relocation to Bethesda Is Recalled

Nostalgia was the theme of a celebration held on Nov. 23, 1991, at the Mary Woodard Lasker Center to commemorate the move of the NIH campus to Bethesda between 1938 and 1941. "Celebrating Arrival in Bethesda" was cosponsored by the NIH Alumni Association (NIHAA) and the NIH Historical Office/DeWitt Stetten, Jr. Museum of Medical Research.

The reception and seminar were attended by more than 120 members, guests, and current NIH personnel. In conjunction with the meeting, the Stetten Museum sponsored an exhibit and brochure entitled "Seventy Acres of Science: Establishing the NIH Campus at Bethesda, 1930-1941," which may be seen in the NIH Clinical Center, Bldg. 10.

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In This Issue

Anderson *(continued from p. 1)*

ADA, an enzyme which breaks down toxic substances in the body. Without this essential gene and the resulting enzyme, toxic substances attack the immune cells in the bloodstream and the body's immune system eventually fails, leaving the patient at risk of infection. ADA patients have been receiving weekly injections of PEG-ADA, a drug that temporarily replaces the missing enzymes. In addition, the NIH patients have received their own gene-corrected cells and they are doing very well so far.

Human gene therapy has potential for treating many other diseases including cancer, cardiovascular disease, hemophilia and AIDS. The technology is progressing rapidly. The applications for this therapy may potentially have a tremendous impact on disease treatment approaches and outcomes in the next century.

There will be a short business meeting to let members and guests know what is happening with the NIHAA. For more information about the meeting call the office at (301) 530-0567.

FEEDBACK

With this issue of the NIHAA Update, *we would like to start a section on the views of our members on matters relating to the biological sciences and the NIH in particular. Please let us know how you feel on any issue you consider significant. To start the ball rolling, here's one scientist's view on an old problem with a new twist:*

At the most recent town meeting—featured elsewhere in this issue—the NIH was represented to Senator Mikulski by three clinicians, the head of rehabilitation, two administrators and—oh, yes, a laboratory scientist. The point was made repeatedly that NIH's function is to bring advances made at the bench to the bedside; but almost no mention was made of how these new findings magically appear.

This is the pitch that NIH has always made to Congress. And maybe it's worked more effectively than the truth ever could. But maybe it's time we gave Congress a little more credit for intelligence and explained in simple terms that advances at the bench don't just happen—that NIH's first job is to make those fundamental discoveries so that NIH clinicians and industry can develop practical applications.

Would it really be so difficult, for example, to explain to the Congress that the Nobel prize for the polio vaccine went to neither Salk nor Sabin, but to Enders, Wellers and Robins?—that in a very real sense the Nobel Prize for HIV has already been awarded—not to Montagnier or Gallo, but to those whose fundamental work made the discovery possible. Baltimore and Temin?

Congress and the American people are not stupid. Told repeatedly that biological science is on the "verge of a breakthrough in . . ." —you fill in the gap—they have long since concluded that NIH's word is no more reliable than the Defense Department when it evaluates the B2 bomber.

The love-hate relationship between the public and the biological sciences has slowly but appreciably shifted from the *l* to the *h* side of that hyphenated affair. Perhaps a growing contempt by Congress for scientific spokesmen is the result—witness, for example, Dr. Healy's recent grilling by Congressman Dingell. What do you think?

NIHAA Update

The NIHAA Update is the newsletter of the NIH Alumni Association. The NIHAA office is at 9101 Old Georgetown Rd., Bethesda, MD 20814. (301) 530-0567.

Editor's Note

The NIHAA Update welcomes letters and news from readers. We wish not only to bring alumni news about NIH, but also to serve as a means for reporting information about alumni—their concerns, information on recent appointments, honors, books published and other developments of interest to their colleagues. If you have news about yourself or about other alumni, or comments on and suggestions for the NIHAA Update, please drop a note to the editor. We reserve the right to edit materials.

Credit

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Hundreds Honor Deputy

Fond Farewell Follows Raub to White House

By Rich McManus

Hundreds of well-wishers crowded Wilson Hall on Nov. 25, 1991, to bid farewell to NIH deputy director Dr. William F. Raub, who ended a 25-year NIH career to take a job as special assistant for health affairs in the White House's Office of Science, Technology and Policy. He had been acting director of NIH for nearly 2 years while a successor to Dr. James Wyngaarden was sought.

"It's clear from the number of Bill's friends both past and present that he is much loved," said NIH director Dr. Bernadine Healy. "During his 25 years here, he has been known, admired and liked by an ever-growing circle of NIH'ers. He made friends by being a good friend."

Healy, who was deputy director of OSTP from 1984 to 1986, called Raub "an ideal addition to OSTP. I believe this move is a plus for Bill and a great advantage for the White House to have his insight. It's also good for NIH to have a friend in the White House."

As guests filed into the hall to greet Dr. and Mrs. Raub and partake of a generous buffet, the NIH Madrigal Singers sang softly in the background. Among their tunes was the Harold Arlen lament, "The One That Got Away."

Then a number of colleagues rose to pay tribute to a man who wanted no big fuss at all, claiming he was "just a small-town boy from Pennsylvania."

"We all know that Bill is, in fact, larger than life," commented NIAID director Dr. Anthony S. Fauci, "and my colleagues insisted that I—the shortest of the ICD directors—tell him that. I guess somehow I make the point more clearly.

"Particularly in the last couple of years, he has been something very, very special to the ICD directors—a good friend and confidant. He's been a very good shrink when we came to his office needing intensive psychotherapy. But the main feeling we have for him is true, sincere affection."

Fauci said Raub wouldn't hear of a gift acknowledging his skillful handling of NIH during his acting directorship. So Fauci and his fellow ICD directors, recognizing that Raub always has cared about the homeless, decided to pool their gift money and write a check to Bethesda Cares, a nearby shelter. Fauci wrote a letter in the name of the directors and enclosed a check for $460 to the organization.

Sue Ohata, a member of the OD EEO advisory committee that Raub helped form recently, presented him with a gift and thanked him "for support and for nurturing the committee. Dr. Raub had the foresight to see the value of a diversified workforce," she said. "He understood that the workplace is enriched by diversity. One coworker once said, 'Dr. Raub always saw the diamond in us where others only saw coal.'"

Diane Armstrong, director of the Division of Equal Opportunity, said, "Dr. Raub has been a special person to all of us. He is always there for you. He gives sincere advice, and has been very special to the EEO network."

Master of ceremonies Storm Whaley, NIH associate director for communications, presented Raub with a packet of letters from those who couldn't attend the farewell. He then led the NIH Supramural ("over the wall") Singers (for whom Raub had been a lyricist at many happy occasions in the past) in a version of "Happy Birthday" as the lights in the room came up—it was Raub's 52nd birthday.

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With his wife Joyce by his side, Dr. William Raub (c) greets a guest at his farewell party on Nov. 25, 1991. Wilson Hall was packed with friends saying goodbye and wishing him well in his new assignment at the White House.

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As the audience joined the singing, two NIH'ers bore a computer-printed streamer through the audience bidding Raub a happy birthday.

"I'm glad everybody agreed to keep this simple," quipped a clearly moved Raub. "I never thought this many people would help me celebrate the 31st anniversary of my 21st birthday."

With his wife Joyce at his side, Raub said, "What's been special to me has been the people of the NIH, hundreds of you. You have always been cheerful and effective in helping me do what's best for NIH. Thank you. It's been fun. God bless you, and long live the NIH."

Many in the crowd added their signatures to a memento given to Raub, an aerial photo of NIH. R&W General Manager Randy Schools also presented him with an NIH hat and T-shirt.

A graduate of Wilkes College and the University of Pennsylvania, where he obtained his Ph.D. in physiology in 1965, William Fine Raub joined NIH on July 3, 1966, as a health scientist administrator in the then Division of Research Facilities and Resources. After 2 years there, he rose to acting chief of the Special Research Resources Branch, Division of Research Resources (now NCRR), where he spent 6 months. He remained within the division for his next job as chief of the Biotechnology Resources Branch, a post he held from 1969 to 1975.

In 1975, Raub moved to the National Eye Institute as associate director for extramural and collaborative programs.

Says NEI director Dr. Carl Kupfer, "Dr. Raub personifies the outstanding science administrator who not only was committed to supporting NIH's research effort, but also continued to carry out his own research project—the PROPHET program, a computer system that helps compare molecular structures. It's been very valuable to many researchers."

After more than 3 years at NEI, Raub became NIH associate director for extramural research and training. Five years into that assignment he was made NIH deputy director for extramural research and training. In 1986 he became NIH deputy director, a post he continued to fill even while he was acting NIH director from August 1989 to April 1991.

Last year, Raub received the Special Recognition Award from the Association of American Medical Colleges, and the Award for Distinguished Contribution to Research Administration from the Society of Research Administrators.

During a speech at the latter award ceremony in Vancouver last October, Raub shared his ten essential attributes for the research administrator of the future.

"One reason to live until tomorrow is to keep dreaming about the tomorrows after that," he said, describing attribute number nine." Research administrators often are the ones who are called upon to rise above the fray, if only momentarily, to take the long view on behalf of their scientific colleagues and the institution as a whole. Even crises bring opportunities if we've thought enough about where we want to go to seize the moment and make some seminal change."

As Wilson Hall bulged with employees queueing up to say goodbye, one comment could be heard repeatedly. " He's a really good guy."

Science Education Support Committee Established by NIHAA

A new NIHAA committee has been formed to provide support to the NIH Office of Education (OE). Dr. Gordon Wallace, the chairperson, is recruiting volunteers to serve on this committee.

Initially, the committee will serve three functions: assisting newly arrived fellows and their families in becoming acquainted with and settling in the community, participating in the OE Speakers Bureau, and helping to recruit fellows.

The committee will focus on clinical fellows when they visit NIH in the spring and when they all arrive in July. The committee plans to help provide information on housing, day care, shopping, public transportation and other pertinent data. It is hoped that committee members will be able to assist fellows and their families directly.

The OE Speakers Bureau now comprises NIH scientists willing to volunteer their time to help with science education in the public schools; the focus has been at the secondary level. Dr. Michael Fordis, OE director, has pointed out a need at the elementary school level where science teachers would welcome assistance in developing subject material to interest students. Alumni who would like to help at either level are welcome.

Alumni interested in working on this committee, should contact the NIHAA office, (301) 530-0567.

Calendar for Upcoming NIHAA Events

A "Mixer" sponsored by NIHAA at the AAP/ASCI/AFRC meetings, May 1-4, 1992, Baltimore, MD, will be held on Saturday, May 2, 1992, from 6 to 7:30 p.m. in the Lombard/Camden Room, Hyatt Regency, 300 Light Street, Inner Harbor.

On Thursday, May 21, 1992, from 6 to 8 p.m. the NIHAA will host a reception at the Embassy of the Federal Republic of Germany to honor the visiting German scientists at NIH. Details will be mailed to area members in April.

Relocation *(continued from p. 1)*

"The fact that so many people turned out to celebrate an event that took place 50 years ago is evidence of the interest people have in their government agencies, even into retirement years," said Dr. James T. Duff, chairman of the Washington NIHAA chapter and a member of the planning committee for the event. Dr. Roy Hertz, an NIH scientist emeritus, summed up everyone's feelings when he said, "It's a delight to see everyone, old friends and colleagues, and to celebrate this occasion."

Rep. Constance A. Morella of Maryland's eighth district, in which NIH is located, entered congratulations for the anniversary into the *Congressional Record.* Speaking at the seminar, she noted that the 1992 NIH budget would exceed $9 billion, in sharp contrast to the $707,000 budget in 1940. "Keep up the good work," she told the audience. "We are very, very proud of you. You can count on Congress to support what you are doing."

Following Morella's remarks, five NIH alumni who had participated in the move to Bethesda described NIH as it was in the late 1930's and early 1940's. Excerpts from their talks, focusing on the move, are reprinted on pp. 6-7, as are reminiscences of 1941 sent in by other alumni who participated in the move. Except for the small extramural program supported by NCI, the NIH in 1941 was entirely an intramural effort. The alumni asked Dr. Carl Kupfer, NEI director and NIH acting deputy director for intramural research, to conclude the seminar with observations on "NIH Today and Tomorrow."

Among the attendees at the Nov. 23, 1991, meeting are (from l) Dr. Donald Fredrickson, former NIH director; Rep. Constance Morella (R-MD); Dr. Joe R. Held, NIHAA president and his wife, Carolyn.

Kupfer discussed the strategic plan being developed for NIH and noted that "demography is driving much of our thinking," since the population over the age of 55 will double within the next 50 years. One goal will be "to make that life period as productive and high quality as possible," he said, stressing preventive medicine as the key. He thanked the audience for the "rare pleasure of sharing the excitement and uniqueness of NIH with such distinguished alumni."

NEI director Dr. Carl Kupfer, who is also acting NIH deputy director for intramural research, speaks to the group on the future of NIH.

Dr. Joe R. Held, president of the association, stated that the NIHAA "looks forward to working on additional projects with more alumni in the future." Dr. Victoria Harden, director of the NIH Historical Office and DeWitt Stetten, Jr. Museum of Medical Research, commented, "We greatly enjoyed planning this program with the alumni planning committee. Our office looks forward to working on additional projects with more alumni in the future."

*(see **Excerpts** p. 6)*

Reminiscencing at the party are (from l) Drs. Nelson Richtmyer, John Bozicevich, Leon Jacobs and Monroe Vincent.

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EXCERPTS FROM THE TALKS

Dr. Margaret Pittman

"I came to NIH in 1936—55 years ago—when funds were made available by the Social Security Act of 1935. This permitted the Public Health Service to employ additional staff. I was hired at a grade GS-9, salary, $3,200. Competition was keen, and my highest previous salary had been $2,500. . .

"There were only 325 employees at NIH. I know, because I was asked to take up the collection for the Red Cross for 3 years.

"My first work at NIH was with Dr. Sara E. Branham. She had been called there to work on meningitis. There was an epidemic in the United States, and I was to work with her on developing a mouse potency assay for antimeningitis serum. However, the test was not promulgated because the sulfonamides appeared about this time.

"The Biologics Control Laboratory moved from the 25th and E Street campus to Bethesda in the spring of 1941. We were the last ones to come out, but it was a beautiful time to move. Cherry blossoms covered the road. When we moved, I acquired my own research laboratory and took up my research on *Haemophilus influenzae* again—the organism on which I had worked at the Rockefeller Institute of Medical Research before I came to NIH."

Dr. Leon Jacobs

"It was a lot of fun working in those first few years at NIH downtown. It had become NIH in 1930, but it was a very small place. After an institute seminar, for example, all of the scientific staff could go into the director's office for tea and cookies. The director, Dr. L. R. Thompson, a lovely man, was very influential in the establishment of NIH and in bringing it to Bethesda . . .

"When we came out in 1941, we carried a lot of our own precious material with us. We had cultures of amoebae; we had various kinds of animals infected with various species of helminths and protozoa. And we also had a piece of equipment that Dr. Charles Rees had developed. He had come on board in 1939 to work on amebiasis and had brought with him a piece of equipment called a micro-isolation apparatus, which was a jerry-built thing. You can see one of them in the DeWitt Stetten Museum in the Clinical Center . . .

"Not all of us were very happy with the move. Not all of us had cars. If you tried to get out here on the streetcar and bus on Saturday afternoon to take care of some amoeba cultures, you were pretty unhappy unless you had a car. . .

"At the 25th and E campus, there was no cafeteria . . . The media room, which prepared all the media for the bacteriology group, often cooked hot dogs for lunch and sometimes made soup. I always figured that the soup was basic stock veal infusion broth with other things added to it.

"When we moved to Bethesda, we had a cafeteria in Bldg. 1, as well as shops and a library. There was also an auditorium, so we no longer went to the director's office to have tea and cookies after seminars."

Dr. Harold Stewart

"Cancer investigators assembled in the early years by Dr. Joseph Shereschewsky of the Office of Cancer Investigations at Harvard Medical School represented a diversity of scientific specialties. Included among us were biologists, geneticists, physicists, radiologists, biochemists, experimental cancer chemotherapists, and pathologists. Each worked individually on research projects of his own design and published independently. Equally important, all consulted among themselves, exchanged ideas, and helped one another . . . This spirit of cooperation among scientists established at Harvard under Shereschewsky shaped events that were to continue here at Bethesda.

"There were four of us pathologists: Drs. T. Hugh Grady, Stuart W. Lippincott, Jesse E. Edwards, and me. It had become obvious during the earlier years, that there were inaccuracies in some of the published reports of the pathologic diagnoses and classifications of spontaneous and experimentally induced lesions in laboratory animals. . .

"To avoid errors, the entire NCI staff, with the approval of the Director, Dr. Voegtlin, established the rule that any manuscripts that included pathologic diagnoses, descriptions or illustrations of cancers or other lesions were to be reviewed by one or another of us pathologists before submission for approval for publication. Incidentally, this rule did not automatically confer co-authorship on the part of the reviewing pathologist.

"Prior to the establishment of the *Journal of the National Cancer Institute*, our scientific papers had appeared in a variety of publications. With the

appearance of the first issue of the *JNCI* in August 1940, this became the medium of choice for our publications.

"On December 7, 1941, Pearl Harbor was bombed. During succeeding months, many of the staff volunteered for military duty. Who, in our absence, would carry on the work of experimental pathology? The pathologist who replaced us was Dr. Thelma B. Dunn. It's often been said that it's better to be lucky than to be good. And that's what happened in this circumstance . . . Dr. Dunn made remarkable contributions to cancer research from that time until her retirement in 1970 that earned for her the title, 'the first lady of cancer research.'"

Dr. Joseph Leiter

"I came to work at the NIH in 1938. Although I was hired only as a junior chemist, with no Ph.D. yet, I had the distinction of being personally interviewed by the first director of the Cancer Institute, Dr. Carl Voegtlin, to give you some idea of the involvement of the directors in those days. I went to work in Boston at Harvard University for Dr. Murray Shear, who saw me for the first time when I showed up.

"Shortly after the National Cancer Act was passed, at the first meeting of the National Cancer Advisory Council (NCAC), Dr. Ludvig Hektoen, the first chairman, became alarmed at a twofold increase in the incidence of lung cancer during the past 20 years. The members of the NCAC were sufficiently influential that Congress appropriated $50,000 to establish a program in lung cancer research and in the effects of environmental hazards on lung cancer. I was one of five professionals and fifteen support staff hired for the program. The $50,000 covered all our salaries . . .

"Techniques in those days would horrify us at the present time. We used to use such innocuous menstruums as benzene and acetone to paint on the skins of animals to see if they produced tumors. We only used the S.S. Pierce's pure leaf lard as a menstruum for the carcinogens that were injected subcutaneously. A number of interesting concepts were developed in those days, despite the fact that our techniques were crude. Shear observed, for example, that sometimes when he painted the skins of mice with coal tar, he got an improvement in the carcinogenicity. He coined the term 'co-carcinogen,' that is, a substance which, in itself, did not produce cancer, but which promoted the development of cancer."

Dr. Lewis Sargent

"Chemistry at NIH comprised two separate divisions. The earliest one was headed by the late Dr. Claude Hudson, whose work mainly had to do with the chemistry of rare sugars, extracted from various plant materials. The other division was involved in the chemistry of morphine and drug addiction. . . . It became part of NIH in June 1939. . . . Designated as the Laboratory of Medicinal Chemistry, it moved to the Bethesda campus in May 1941 and was incorporated into the Division of Chemotherapy. . .

"When we got into the war in December 1941, we were put on a 6-day, 48-hour work week. During that period, Wilson Hall in Bldg. 1 became a blood donation center, and we were expected to report every 3-4 months to be relieved of a pint of blood. . . .

"Our buildings were patrolled by armed guards at night, and the single entry road to the campus from Wisconsin Avenue had a gate-house and a railroad-like barrier. For a while we had two interesting night watchmen. One, a Swiss, could always be counted on to look after certain chemical reactions left running overnight. . .

"Despite the frenetic activity in the lab, there occasionally was time for a noon-time softball game on the long-gone diamond in back of Bldg 1. We are all aware of how uncomfortable Washington summers can be. Since the six original buildings were not air-conditioned, we often worked stripped to the waist in the lab. Another item of interest is the string of so-called Victory gardens that stretched along Cedar Lane from Rockville Pike nearly to Old Georgetown Road. These were really happy days. We worked very hard but also had fun."

QUOTES FROM ALUMNI REMINISCENCES

Dr. Jesse E. Edwards

"The attitude I found when I came to NIH was 'low key,' reflecting the New England campus attitude."

Dr. Walter E. Heston

"During my career of nearly 40 years at NIH, it was the best place in the world to do research."

Dr. Everette L. May

"I joined NIH in December 1941, just after the move to Bethesda. Because of World War II, our research efforts were concerned largely with malaria. A totally synthetic substitute for quinine was being sought."

Dr. Walter L. Newton

"When I first joined NIH, I was a laboratory attendant. At the time of the move, I worked with Dr. Frederick J. Brady on the transmission of amebiasis."

Dr. Benjamin Prescott

"The move was a mess. That's what I remember most, especially the unpacking and then reorganizing of everything."

Dr. Nelson K. Richtmyer

"My monthly report for May 1941 consisted of one word: 'MOVED'."

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Dr. William Henry Sebrell

"Although a number of research projects were underway at the time we moved to the Bethesda campus, my principal work was with folic acid, first published in 1942."

Dr. Norman H. Topping

"Just before the move, Helen and I bought a house at 8000 Custer Road in Bethesda. When the NIH moved from 25th and E, our new home was just walking distance away." (from *Recollections*, by Norman Topping, with Gordon Cohn).

THE SUMMER OF 1941: A REMEMBRANCE

Dr. Thomas Kennedy, Jr.

"As a freshman medical student matriculating at Johns Hopkins in the fall of 1940, I had the opportunity to participate in the research activities of a highly regarded young associate professor of medicine, George W. Thorn. War was in the air and his laboratory had just begun a new research program in aviation physiology. When Dr. Thorn learned that I wanted to continue to do research during the upcoming summer of 1941, he suggested that rather than endure the seamy and steamy environs of East Baltimore, I instead live at my home in Washington and work on a research project that he was carrying out in collaboration with a member of the staff of the NIH, Dr. Ben Jones. Thus, June, July and August found me commuting daily from my home in northwest Washington to the basement of Bldg. 2.

"The research related to the role, if any, of the adrenal cortex in physiological adaptation to high altitude. The subjects were rats and macaques. Altitude was simulated in a decompression chamber, located in the areaway at the northeast corner of Bldg. 2. I learned to operate the chamber, to manage the animals, to draw blood samples and to measure blood gases. By today's standards, the available repertoire of techniques was thin and the methods primitive. But it would be many years before this technology improved, and so the know-how I acquired on how to run a Van Slyke manometric blood gas analyzer stood me in good stead in later years.

Some recollections:

"Lots of helpful conversation with two people in adjoining labs: Heinz Specht, a well-established physiologist with whom I would later renew acquaintance and come to regard as a friend and colleague; and Fred Chapman, a young pathologist trained at McGill.

"A Hopkins classmate, Marty Myers, working in the lab of Dr. Jesse Greenstein in NCI (Bldg. 6).

"Excursions to a large primate facility that must have stood just about where the main entrance to the Clinical Center is now located. Stepping inside, you would encounter the terrifying spectacle of scores of monkeys, leaping at breakneck speed and wild abandon all around and about you. The 'zoo-keeper,' a famous campus character, would stand serene and unperturbed amid the chaos until the specific beast we had come to fetch came close; then, in one incredibly swift and deft move, he would snare it with an oversized crabbing net.

"Lunches in Bldg. 1, where the elevator trip to the third floor was always an adventure.

"Treks to the Bethesda Hot Shoppe for everyone's favorite lunch: half a cantaloupe, filled with a big scoop of orange sherbet.

"Results of the summer's research were published long afterwards. For my efforts, I received the then usual reward, an acknowledgement, in a footnote, for technical assistance. But my most unforgettable memory—maybe nightmare—of the summer was of the day the monkey escaped. The technique we had been using to transfer animals from cage to operating table for bleeding was neat and generally reliable and safe.

"However, one afternoon it failed and, with a monkey loose in our lab, someone—unaware of what was going on—opened the door to come in. In a split second, the escapee bounded out into the corridor and headed straightaway toward the light at the south entrance of the building. His last great leap to freedom, however, was made before recognizing the almost invisible barrier of a heavy plate glass door. Dazed for a moment by the unexpected encounter, the animal sat briefly still.

"But when he saw us charging down the corridor in hot pursuit, he made a bee line for the nearest opening, which, unfortunately, turned out to be the laboratory of a somewhat reclusive biologist, Dr. Alex Hollander, who was studying the genetics of fungi. The walls of his lab were covered with shelves, on which Petri dishes in countless numbers were neatly stacked. The frantic monkey went from floor to table-top to shelves in a twinkling, and round and round. . . The havoc wrought was indescribable.

"I met Dr. Hollander 25 years later at an MIT retreat. Luckily, he did not recognize me."

Brief Timeline of NIH Discoveries, 1930-1940

In conjunction with the NIH Historical Office, the winter 1990 *NIHAA Update* published a timeline of NIH discoveries between 1887 and 1929. This issue continues the chronology, covering the period 1930 to 1940. As new institutes were created, investigators have been linked to specific institutes. As before, information has been drawn from many sources, and an effort has been made to link each item with one or more publications.

Part II: 1930-1940

1930

The Hygienic Laboratory was renamed "National Institute of Health" through the Ransdell Act.

1930
Ralph Lillie demonstrated that the cause of psittacosis was a rickettsia-like organism (later placed in the genus *Chlamydia*) instead of a virus. The research of his colleague Charles Armstrong on this disease resulted in governmental regulation of the importation of psittacine birds.

1930
Maurice I. Smith developed a quantitative colorimetric reaction for the ergot alkaloids.

1930

Sara E. Branham identified a new organism, *Neisseria flavescens*, as a rare cause of meningitis and septicemia in humans, but one requiring careful differentiation from meningococcus. In 1970 she was honored posthumously by the name of a new genus, *Branhamella*.

1930
Maurice I. Smith, Elias Elvove and their collaborators discovered the cause of "Jamaican Ginger" paralysis.

1931
Rolla E. Dyer, Lucius F. Badger, and Adolph S. Rumreich demonstrated that Rocky Mountain spotted fever existed on the eastern seaboard of the United States and that endemic (murine) typhus was transmitted by rat fleas.

1931

H. Trendley Dean (above) and Elias Elvove started work on the mystery of "mottled enamel"—later called fluorosis. During the next 10 years, aided by Frank McClure and Francis Arnold, they laid the basis for the controlled use of fluoride to prevent cavities.

1932
A section on heart disease supervised by Arthur M. Stimson began to study the causes of rheumatic fever. This signaled the first involvement of NIH with heart disease.

1933
Louis Schwartz, F.C. Makepeace, and H. Trendley Dean published findings showing the hazardous effects of radium dial painting.

1934
Charles Armstrong and Ralph D. Lillie identified the lymphocytic choriomeningitis virus that caused a disease, commonly termed "Armstrong's disease," in house mice and in humans exposed to infected mice.

1934

Ida A. Bengtson began standardization of antitoxin for six species of *Clostridium*, which cause gas gangrene.

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1935
Lawrence Kolb reported a series of studies on innovative treatment for drug addicts who were patients in the PHS Hospital in Lexington, Kentucky.

1936-40
Maurice I. Smith, Ralph D. Lillie, and Benton B. Westfall reported on the toxicology, pathology and metabolism of selenium.

1937
The National Cancer Institute was established by Congress.

1937
Sanford M. Rosenthal, Hugo Bauer and Sara E. Branham began pioneering work on the sulfonamides and their application to humans in the treatment of bacterial infections.

1937
Maurice C. Hall, Willard H. Wright and colleagues launched a series of studies that demonstrated the extent of human trichinosis in the United States and contributed to methods for its control.

1937
Maurice C. Hall developed a technique, known as the "NIH swab," to diagnose enterobiasis; it is still the accepted technique.

1937
Margaret Pittman, Sara E. Branham, and E. M. Sockrider showed the type specificity of meningococcus by use of the Petrie's precipitin test.

1938

Margaret Pittman (l) showed that the precipitin reaction around meningococcus colonies on immune serum agar plates was directly correlated with the mouse potency assay of each lot of antiserum.

1937-38
Henry Klein, Carroll E. Palmer, John W. Knutson devised a DMF (Decayed, Missing, Filled) Index guide that became the standard epidemiological tool for studies and surveys of children's dental status.

1937-41

The Office of Cancer Investigations, 1939, Cambridge, Mass.

Harold L. Stewart and Howard B. Andervont of NCI first described the pathology and proper histological classification of the adenomatous lesion of the glandular stomach of strain I mice, which was important to the understanding of carcinogenesis.

1938-41
The National Institute of Health moved to its Bethesda, Maryland location.

1938

Herald R. Cox discovered that rickettsiae could be cultivated successfully in the yolksacs of chick embryos. During World War II, all rickettsial vaccines were produced by this method.

1938
Gordon E. Davis and Herald R. Cox identified a new rickettsial disease, which they called Nine Mile fever. Rolla E. Dyer first showed the relationship of the organism to that of Australian Q fever, and its identity was subsequently confirmed by the complement-fixation and vaccine studies of Ida A. Bengtson.

1938
W. Henry Sebrell and Roy F. Butler published the first clinical description of ariboflavinosis, a human riboflavin deficiency.

1938-40
Murray J. Shear of NCI reported that a basic fraction of creosote oil enhanced the production of mouse tumors. He termed this fraction to be a "cocarcinogen."

1938-50
John Bozicevich developed immunological methods for the diagnosis of helminth parasitic infections.

1939
Charles Armstrong adapted the Lansing strain of poliomyelitis to cotton rats and then to laboratory mice, thus providing investigators with an inexpensive experimental animal for polio studies.

1939
Louis Schwartz and H. R. Foerster described industrial dermatitis and melanosis due to photosensitization.

1938-40

Charles W. Rees developed a micromanipulator that permitted microscopic handling of amoebic cysts as well as other organisms.

1930's-40

Two of Claude Hudson's many contributions to carbohydrate chemistry: 1) he showed that mutarotation of natural glucose in water was subject to general acid-base catalysis; 2) he developed a "lactone rule," noting that the optical rotatory sign of an aldonic acid lactone was controlled by the configuration of the carbon bearing the hydroxyl group involved in the ring closure.

1930's

Sanford M. Rosenthal developed a treatment for mercury poisoning used widely before the advent of dimercaptoethanol.

1930's
Margaret Pittman extended investigations on potency requirements for *Haemophilus influenzae* antiserum and diagnosis requirements of the six capsular types.

1939
Margaret Pittman showed that sulfapyradine was effective against non-type-specific *Haemophilus influenza*.

1930's
Howard B. Andervont's research at NCI increased understanding of genetic factors in mammary, hepatic and pulmonary tumors in mice.

1930's
Jerald G. Wooley and W. Henry Sebrell developed the first satisfactory diets for experimental rabbits and investigated the connection between nutrition and infection by studying pneumococcus-infected mice that were deficient in thiamine and riboflavin.

1940

Karl Habel produced an improved, killed rabies vaccine that eliminated the foreign brain tissue that had caused paralysis in some patients.

1939-40
Hugh G. Grady and Harold L. Stewart of NCI first identified the type II cell of the pulmonary alveolus as the cell of origin of the common alveologenic tumors in the lungs of mice.

You will soon be receiving a dues renewal notice from NIHAA. Please return it promptly. Dues are an important source of our income and we need your continued support.

News From and About NIHAA Members

Dr. Carolyn H. Asbury, who was a science writer at NINCDS until 1980, and then a senior program officer at the Robert Wood Johnson Foundation, has been named deputy director in the health and human services program at the Pew Charitable Trusts, which is a national philanthropy based in Philadelphia. The Trusts support nonprofit activities in the areas of conservation and the environment, culture, education, health and human services, public policy, and religion. In her new position she "will be responsible for developing and overseeing grants to nonprofit organizations in such areas as health and human services for children and youth at risk, populations with special needs, and the elderly."

Dr. Rita R. Colwell, formerly a member of a microbiology training

committee at NIGMS from 1970 until 1973, is now president of the Maryland Biotechnology Institute at the University of Maryland, an independent research component of the University of Maryland System that furthers the scientific development and transfer of technology from the laboratory to the marketplace. She is also a researcher at MBI's Center of Marine Biotechnology, where she has spent years working on cholera bacteria. In March 1991, she was inducted into the Maryland Women's Hall of Fame. Currently she is also president of the International Union of Microbiological Societies and in May 1991 was awarded the Purkinje Gold Medal for Achievement in the Biosciences by the Czechoslovak Academy of Sciences.

Dr. Bernard D. Davis, who is on the NIHAA Board of Contributing Editors, was a former Fogarty scholar-in-residence, and is Lehman professor of bacterial physiology emeritus at Harvard Medical School, has edited a book, *The Genetic Revolution: Scientific Prospects and Public Perceptions* (Johns Hopkins; $45, cloth; $15.95, paper). He and others address the problems and consequences that many fear may arise from the growth of biotechnology. They include explanations of molecular genetics, its practical applications in biotechnology, its legal implications, and its interesting historical context.

Dr. Vincent T. DeVita Jr., former NCI director who was at NCI from 1963 to 1988, and is now at Memorial Sloan-Kettering Cancer Center, NY, has been elected to the board of directors of ImClone Systems, Inc. ImClone Systems is a biopharmaceutical company engaged in developing therapeutic products to treat selected cancers and other diseases. Its cancer therapeutic, BEC-2, recently entered a phase I clinical trial for treatment of malignant melanoma.

Dr. Anne M. Dranginis, who was a senior staff fellow in NIDDK's Laboratory of Cellular and Developmental Biology from October 1984 to January 1992, writes that "as of 1/1/92 my new position is Clare Booth Luce professor of biological sciences at St. John's University in Jamaica, NY. The position is funded by the Luce Foundation."

Dr. Daniel W. Drell, who was in the Laboratory of Oral Medicine, NIDR, from 1983 to 1986, writes, "At the end of April 1991, I joined the Human Genome Program in the Department of Energy... In a bit of a departure from their customary realms both DOE and NIH support a limited program in ethical, legal, and social research of the genome program (my role at present). In making this career move, I've left the laboratory bench for an office and a computer; I travel more often and talk on the telephone and by E-mail a lot more than I used to. The excitement is great, though, because I'm at the center of a new, important, and very promising government (yes!) activity. Unlike other 'Big Science' programs, the Genome Project doesn't depend on completion before society benefits: the advances in knowledge, better understanding of ourselves and the disease processes we suffer from, will come steadily and in direct proportion to the effort we make."

Dr. Timothy J. Eberlein, a clinical associate and investigator at NCI from 1979 to 1982, and currently chief of surgical oncology at the Brigham and Women's Hospital in Boston as well as a member of the experimental therapeutics study section II, has recently been awarded a Faculty Research Award from the American Cancer Society. As director of the biologic cancer therapy program at Brigham, he will utilize these funds to further his

work in immunotherapy in an attempt to unravel and understand the exact mechanisms involved in the eradication of tumors.

Dr. Donald S. Fredrickson, former NIH director and now a scholar at the National Library of Medicine, recently was honored by Sandoz Research Institute and the International Atherosclerosis Society for his outstanding work in lipid research. At a special awards dinner during the 9th International Symposium on Atherosclerosis, Sandoz Research announced the establishment, in conjunction with IAS, of the Donald S. Fredrickson Lectureship. It will be awarded to a person every 3 years for major achievements and advancements in lipid research. The recipient will be invited to deliver the lecture at the IAS convention. Also, during the awards dinner, Fredrickson received a lifetime achievement award from Sandoz Research.

Dr. Joe R. Held, director of DRS in 1972-1984 and current president of the NIH Alumni Association, has recently joined Microbiological Associates, Inc. as administrative director of its biotechnology group. The group designs and performs thousands of short-term biological safety tests that benefit more than 400 of the world's foremost corporations and research institutes. His duties include directing the activities of laboratory animal health services, which monitors the health of animal colonies in research and testing laboratories, breeding facilities, and ascites production facilities. He will also assume administrative responsibilities for other divisions of the biotechnology group.

Dr. Jane E. Henney, who was NCI deputy director and also a medical oncologist at the institute from 1976 to 1985, has been named by the Food and Drug Administration to be its deputy commissioner for operations, a newly created position to manage FDA's day-to-day activities. She had been vice chancellor at the University of Kansas Medical Center, Kansas City. In her new position she will also advise the FDA commissioner, Dr. David A. Kessler, on all issues affecting the agency's performance. In his announcement of the appointment, Kessler said, "Her impressive background in government and academia make her uniquely suited to helping manage the FDA." She started in January 1992.

Dr. Kurt J. Isselbacher received the 1991 Bristol-Myers Squibb/Mead John-

son Award for Distinguished Achievement in Nutrition Research for defining the fundamental mechanisms of intestinal nutrient absorption and discovering the altered nutritional behavior of cancer cells. The award, consisting of a $50,000 prize and a silver medallion, is given annually to a scientist who has made a unique contribution to fundamental or clinical human nutrition research. He was cited because his "innovative research identified the basis of several hereditary and acquired disorders of abnormal nutrient metabolism, including galactosemia, fatty liver, abetalipoproteinemia, and isovaleric acidemia." These findings led to effective therapy for these conditions. Isselbacher is now Mallinckrodt professor of medicine at Harvard Medical School and director of the Massachusetts General Hospital's Cancer Center. He was at NIH in the mid 1950's at NIAMD where he identified the enzyme defect that results in galactosemia.

Dr. Leon Jacobs, who has been involved with NIH in various capacities and positions since 1937 and is now scientist emeritus, NIAID, delivered on Nov. 27, 1991, the first Gorgas Memorial/Leon Jacobs Lecture. The executive committee and board of directors of the Gorgas Memorial Institute of Tropical and Preventive Medicine established an endowment for a lectureship in his name. He has been the chairman of the board and president of the Gorgas Institute since 1983. He spoke on parasitology and tropical medicine researchers who have made notable contributions to the field.

Dr. Lewis L. Judd, chairman of the department of psychiatry at University of California, San Diego School of Medicine, and former director of NIMH from 1988 to 1990, has been named the first recipient of the Mary Gilman Marston Endowed Chair in Psychiatry. The $250,000 chair will help support research, education and patient care in psychiatry at UCSD.

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Dr. Sewa Legha, who worked as a clinical associate at the Investigational Drug Branch, CTEP, DCT, NCI, 1974-1976, writes that he is currently professor of medicine, department of medical oncology, the University of Texas M.D. Anderson Cancer Center, where he has been named chief of the newly created section of melanoma as of Sept. 1, 1991.

Terry Lierman, an NIH intern in several institutes from 1971 to 1974, has been recently appointed by presidential candidate Sen. Tom Harkin (D-Iowa) as issues coordinator and domestic policy advisor to his campaign for the presidency. Lierman has been for 5 years the executive director of the National Coalition for Cancer Research. The coalition, comprising most major U. S. cancer organizations, supports the purposes of the National Cancer Act. In addition, Lierman is president of Capitol Associates, a Washington, D. C.–based government relations firm, and is a former staff director of the Senate Appropriations Committee.

Dr. Fitzhugh Mullan, who was at NIH from 1982 to 1984, is now the director, Bureau of Health Professions, Health Resources and Services Administration, Rockville, Md. He is also chair of the National Coalition for Cancer Survivorship (NCCS). He "doesn't see its role as one of activism, but education —building a smart, knowledgeable, consumer membership." NCCS has recently moved its national office to Washington, D.C., and the organization plans to keep members informed about legislative matters. Policy issues such as health insurance will be a major theme for 1992, with community development and organization as well as education

remaining major goals. Mullan wrote a book in 1983, *Vital Signs: A Young Doctor's Struggle with Cancer.*

Hazel W. Rea, who has been at NIH since 1949, writes: "In Sept. 1990 I retired from my position as Deputy Director, Intramural Research, NIMH and —with no break in service—accepted a half-time position as Senior Advisor to the Director, IRP. It's the best of all possible worlds for a gal whose 81st birthday arrived on Feb. 2, 1992."

Dr. John C. Ruckdeschel, a staff associate at NCI from 1972 to 1975,

and a visiting scientist 1983-84, and who then went to Albany Medical College, NY, where he was head of the Joint Center for Cancer and Blood Diseases and the Division of Medical Oncology, has been named the new director and chief executive officer of the H. Lee Moffitt Cancer Center and Research Institute in Tampa. The Moffitt Cancer Center is a freestanding teaching affiliate of the University of South Florida Health Sciences Center.

Dr. Jesse Steinfeld, former U. S. surgeon general, who was at NCI during the 1950's and late 1960's, was honored by the American Cancer Society for "encouraging pioneering research on the effects of involuntary smoking and for serving the American Cancer Society for 15 years as member of the Committee on Tobacco and Cancer."

Dr. Robert H. Waldman, a clinical associate at NIAID from 1965 to 1967, writes: "I have moved from the University of Nebraska College of Medicine to the Association of American Medical Colleges, where I am Vice-President for Graduate Medical Education and Executive Director of the National Resident Matching Program."

Dr. Gordon Wallace, who was associate director for intramural research, NIAID, 1960-86, writes that he retired from the USPHS in 1986, after 32 years of service. Upon retirement, he joined Ling Technologies, a newly founded Maryland firm dedicated to private sector/federal laboratory relationships, primarily to stimulate technology transfer. After 2 years at Ling Technologies, he started Wallace Biotechnology Associates, focusing on technology transfer in the life sciences. Early in 1989, he cofounded Bio-Brite, Inc. to develop

and market the "light visor," a product based on pioneering research at the NIMH on light therapy for the treatment of Seasonal Affective Disorder (SAD), commonly referred to as winter depression. After 3 years of struggle as a start-up company, Bio-Brite is now marketing the light visor.

Paul G. Waugaman, who was at NINCDS from 1965 to 1977, and at NIEHS from 1977 to 1984, writes: "I left NIH work-wise in 1984 and spent a year on the staff of the NC Governor's Board of Science and Technology. During that year I was officially on leave from NINCDS. In 1985 I went to Wake Forest University's Bowman Gray School of Medicine, where I organized the university's technology licensing and patenting program and coordinated industry-sponsored research. In March 1991 I accepted an offer to come to North Carolina State University to take over the university's technology administration program with the title assistant vice chancellor for research. Despite the fact NCSU has no medical school, we are deeply involved in biomedical research through our College of Veterinary Medicine and biotechnology and toxicology research in our College of Agriculture and Life Science. Even our food science department is involved in disease prevention through control of food-borne pathogens! Remember good biomedical research is not limited to medical institutions."

Dr. Gary Williams, who was at NCI in the Etiology Division 1969-1971, and who is now director of medical sciences at the American Health Foundation in Valhalla, NY, writes that he is organizing a short course on preclinical drug and chemical safety to be held in Tarrytown, NY, Sept. 21-25, 1992.

Dr. Mark C. Willingham, who was at the Division of Cancer Biology, Diagnosis, and Centers, NCI, from 1971 to 1991, retired from the USPHS on Sept. 1, 1991, and currently is professor and director of immunopathology, department of pathology and laboratory medicine at the Medical University of South Carolina in Charleston.

Dr. H. Rodney Withers has been appointed professor and chief of the experimental radiation oncology program in the department of radiation oncology at the UCLA School of Medicine and the Jonsson Cancer Center. He writes, "I spent two enjoyable years from 1989-1991 putting together an Institute of Oncology in Sydney before returning to UCLA. The standard of clinical oncology there is high. Also, I was working with clinical oncologists of all disciplines who had strong commitments to multidisciplinary cooperation in patient management, which made my job very easy. There is now also more emphasis on, and support for research compared with 1966 when I left there the first time to work at NCI in the research laboratory of Mort Elkind. I enjoyed the challenges in Sydney, but it felt good getting back to my research laboratory at UCLA."

President's Page

What Is Happening with The Alumni Association?

By Joe R. Held

The NIH Alumni Association's celebration of the 50th anniversary of NIH's move to Bethesda, which took place on Nov. 23, 1991, was very successful. Details regarding that event are covered elsewhere in this issue. Special thanks go to everyone involved with the meeting.

In an organization such as ours, committees are essential to the success of various activities. The chairpersons for our standing committees are: Cal Baldwin, nominating committee; Cal Baldwin (acting), finance committee; Dr. John Sherman, awards committee; and Dr. Tom Kennedy, membership and chapters committee.

Special credit should go to the nominating committee for having recruited four outstanding individuals for the board of directors who have just started serving in this capacity: Dr. J. Richard Crout, Dr. John Decker, Mr. Charles Miller II, and Dr. David Rall. We welcome them to the board, and would like to thank them for their willingness to serve.

One of our key committees since the formation of the association has been the *NIHAA Update* editorial advisory committee, which was initiated under the chairmanship of Richard McManus. Rich has asked to relinquish the chair, but will continue to give us the benefit of his counsel by serving on the committee. We are pleased to announce that, effective with this edition, Dr. Robert G. Martin is the new chairman.

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Our other committees and their chairpersons are: science education support, Dr. Gordon Wallace; special events, Randy Schools; historical, Dr. Leon Jacobs; volunteers, Dr. Mary Sears; alumni house, Dr. Abner Notkins. These committees are in need of additional members, and all our membership is invited to volunteer for service on them by either contacting the specific chairperson, or Harriet Greenwald, or me.

A small delegation of us is to represent the NIHAA at a special celebration of the Taiwan Chapter on Feb. 22, 1992. This will be a special 30th anniversary celebration of the first fellowships that were awarded for fellows from Taiwan to come to the NIH for postdoctoral studies in 1962. There were three fellows that year, and the two surviving individuals also will be participating in this celebration, which will include a scientific symposium. We will have more about this meeting in our next issue.

We are looking forward to expanding our membership and chapters. The membership and chapters committee has just completed plans for a "new categories" membership that will make it possible for various institutions and friends to join our association rolls. More information will be forthcoming soon. We also want to call your attention to the special note on p. 4 in this issue of the *Update* regarding the science education support committee and its activities. The committee is working closely with Dr. Michael Fordis to develop activities that can complement and support those of the NIH Office of Education, which he heads.

We will hold our annual meeting on Saturday, Mar. 21, 1992, at the Mary Woodard Lasker Center. Dr. W. French Anderson will talk to us on "Human Gene Therapy." I hope to see you there.

Attention

NIHAA wants to hear from its members. Please type or print your note for a future issue and mail it to *Update*.

Name

Home phone

Home address

News, include dates/position at NIH and photo if possible.

Suggestions for newsletter

Suggestions for NIHAA

Science Reseach Updates

OPTIC NERVE TREATMENT FOUND INEFFECTIVE ALONE

Although commonly used, oral corticosteroids alone are ineffective in treating optic neuritis, a debilitating inflammation of the optic nerve, and actually increase a person's risk for future attacks, according to a large National Eye Institute-supported clinical trial published recently in the *New England Journal of Medicine*.

This unexpected finding calls into question the benefit of treating related demyelinating neurological diseases such as multiple sclerosis with oral corticosteroids. Demyelinating diseases are characterized by progressive damage to the lipid sheaths that insulate nerve fibers.

Most neurologists and ophthalmologists now treat optic neuritis with oral corticosteroids, based on anecdotal reports that these anti-inflammatory agents improve patient recovery.

The optic neuritis treatment trial, which involved more than 450 patients at 15 clinical centers nationwide, is the first randomized clinical trial to evaluate corticosteroid therapy for optic neuritis.

Optic neuritis affects more than 25,000 Americans each year, primarily women between ages 18 and 45. People with the disease have rapid vision loss and usually have ocular pain. If left untreated, some patients regain normal vision after several months of gradual improvement, but most are left with at least some visual deficit. Because a significant number of people who have an initial attack of optic neuritis later develop multiple sclerosis, many physicians consider optic neuritis a precursor or manifestation of the disease.

"We believe based on our results that there is no role for oral prednisone alone in the treatment of patients with initial episodes of optic neuritis," said Dr. Roy Beck, professor of ophthalmology at the University of South Florida and study chairman.

Since the eye is such an excellent model for brain research, the trial's findings may have implications for corticosteroid treatment of other demyelinating neurological diseases.

"Nearly 40 percent of sensory input to the brain originates in the eye," said Dr. Carl Kupfer, NEI director. "Vision research not only reveals the dynamics of ocular disease, but its results may also be applied to many disorders that affect the brain."

NEW TECHNIQUE PROMISES TO SIMPLIFY GENE MAPPING

NIDDK researchers have developed a new method of cutting fragments of DNA out of the human genome that permits any large segment of human DNA to be targeted and removed for mapping, cloning, or sequencing. This technique promises to revolutionize gene mapping and may one day be useful for the treatment of human genetic disease.

Previous methods for cutting DNA limited the size of the DNA segments that could be removed for study and the precision with which investigators could target the sections they wanted to cut out. To create their "molecular scissors," Dr. Daniel Camerini-Otero and his collaborators developed a way to control where restriction enzymes—commonly used in gene research—cut DNA. Restriction enzymes recognize a specific sequence of DNA bases and cut the molecule wherever that sequence occurs. To increase the selectivity with which the restriction enzymes cut, the researchers used the bacterial protein, rec A. Rec A can link up or hybridize any short single strand of nucleotides (oligonucleotides) to a matching double-stranded sequence to form a triple-stranded or triplex DNA. To excise a desired stretch of DNA, the scientists made two oligonucleotides, each of which bind specifically to a unique sequence spanning a restriction enzyme cutting site near each end of the target stretch of DNA.

Dr. R. Daniel Camerini-Otero, chief of NIDDK's Genetics and Biochemistry Branch, holding a model of his "molecular scissors."

The DNA was then treated (methylated) so that the restriction enzyme would not cut at any of the other restriction sites in the DNA chain. The short three-stranded regions, however, were protected from methylation. When the DNA was treated to remove the protective third strands, restriction enzymes then cut primarily at those sites that had been protected from methylation, yielding the desired length of DNA.

This technique permits scientists to measure long distances between genes and markers on DNA much more easily than with current technology, and to remove long sequences for cloning. The group speculates that it may ultimately be possible to adapt the process in order to excise DNA within a cell.

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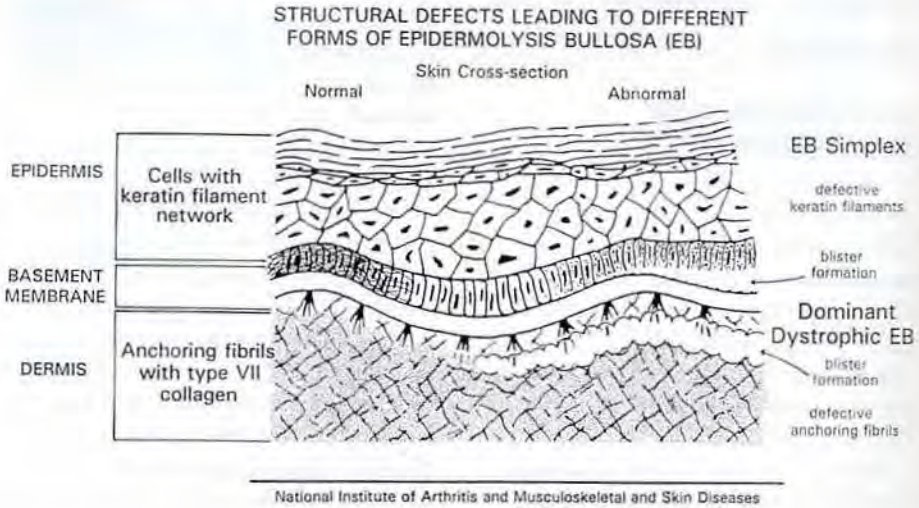
GENE TRANSFER YIELDS FUNCTIONING HUMAN CYSTIC FIBROSIS GENE IN RAT LUNGS

NHLBI scientists have used a genetically modified cold virus to introduce a normal copy of the human gene involved in cystic fibrosis (CF) into the lungs of live animals, fueling hopes for a cure for this lethal genetic disease.

The advance follows by 2 years the discovery of the CF transmembrane conductance regulator (CFTR) gene and the mutation in that gene that accounts for most cases of CF. This discovery, in turn, culminated a decades-long and often deeply frustrating search for the underlying mechanism of CF. Analysis of the protein product of the gene confirmed earlier work that had identified ion channels in the epithelial cells of mucus, salivary, and sweat glands and the pancreas as the central players in defective CF physiology. In people with CF, a malfunctioning ion transport system results in abnormal exchange of sodium and chloride across the epithelia in these glands. In the lungs this results in abnormal fluid balance, leading to thick, viscous mucus which is difficult to cough up and forms a breeding ground for bacteria.

In the present advance, scientists led by Dr. Ronald Crystal inserted a normal CFTR gene into an adenovirus, one of the types of viruses that cause the common cold. The virus naturally seeks out cells lining the lungs, and it was crippled so that it could not cause illness. Tests of rats that received the altered viruses showed that the inserted gene was successfully instructing the lung cells to manufacture the human CFTR protein.

The scientists must conduct efficacy and safety tests and human clinical trials before the promising research becomes a therapeutic reality for those with CF.



RESEARCH TEAMS REVEAL CAUSES OF RARE BLISTERING SKIN DISEASES

Three NIAMS-supported scientific teams working independently have linked a group of hereditary blistering diseases —known collectively as epidermolysis bullosa (EB)—to genes for crucial structural proteins in skin, revealing why skin disintegrates in these diseases.

The research has also shed light on the structural network of normal skin cells and should contribute to an understanding of how wounds heal and what happens to the skin's structure as it ages.

EB is a group of diseases that cause varying degrees of blistering and scarring in affected persons. One research group, led by Dr. Ervin Epstein, San Francisco General Hospital, University of California, San Francisco, discovered that defects in two separate genes for fibrous skin proteins, keratins, are linked to EB simplex in two families. In EB simplex, nonscarring blisters form in the epidermis or outer skin layer. Keratins are the most abundant protein in epidermal cells. There, when properly formed, they construct an internal, web-like network that mechanically stabilizes epidermal cells, as shown in the work of another team, this one led by Dr. Elaine Fuchs, Howard Hughes Medical Institute, University of Chicago. Fuchs' team discovered defects in a human gene for keratin in patients with EB simplex and provided laboratory evidence that shows how abnormal keratins, the product of disrupted genes, lead to skin fragility.

A third group led by Dr. Jouni Uitto, Jefferson Institute of Molecular Medicine in Philadelphia, discovered that dominant dystrophic EB (DDEB) is linked to the gene for type VII collagen. In dominant dystrophic EB, scarring blisters form within the inner skin layer or dermis. Type VII collagen is the major component of the anchoring fibrils, which appear to stitch the epidermis to the dermis. For 10 years, clinicians have noted reduced or absent type VII collagen in skin samples from patients with DDEB, strongly suggesting that its disruption leads to the disease's characteristic deep blistering.

Up to 50,000 people in the United States are estimated to have some form of EB. The studies by Epstein, Fuchs, and Uitto and other ongoing work on keratins and type VII collagens are helping explain these diseases. They also point to treatment possibilities for EB and other wounds such as the development of cultured grafts in which skin cells are genetically altered and transplanted back into patients.

INEXPENSIVE DRUG MOST EFFECTIVE FOR PREVENTING RECURRENT AIDS ASSOCIATED PNEUMONIA

A study by NIAID's AIDS Clinical Trials Group has shown an inexpensive drug used to treat *Pneumocystis carinii* pneumonia (PCP) to be superior to the only drug currently approved for PCP prophylaxis in preventing a second episode of PCP.

PCP is the most common life-threatening opportunistic infection affecting Americans with AIDS. Aerosolized pentamidine is the only drug currently licensed for prevention of PCP. The drug has minimal toxicity, and many physicians prescribe aerosolized pentamidine for secondary PCP prophylaxis as well.

In this study, 310 volunteers who had received therapy for an initial episode of PCP were assigned randomly to receive either oral trimethoprim/sulfamethoxazole (TMP/SMX) daily or aerosolized pentamidine every 4 weeks. Participants also received zidovudine (AZT) every 4 hours, or if they became intolerant to AZT, they were given ddI or ddC, two other anti-AIDS drugs.

The risk of recurrent PCP was 3.25 times greater in patients who received AZT plus preventive aerosolized pentamidine than in those patients who received AZT plus preventive therapy with the less costly drug. The study was halted 9 months earlier than originally scheduled in the wake of this finding.

Ninety deaths occurred among the study participants, but there was no significant difference in life expectancy between the two groups. Only five of the study participants actually died from recurrent PCP (three in the group assigned to TMP/SMX and two in the group assigned to pentamidine). Most died from complications of their HIV-associated opportunistic infections or cancers, or because of HIV-associated wasting syndrome. The fact that so few participants died of PCP reflects improvements in recent years in the management of PCP.

The investigators point out that these results do not mean that TMP/SMX is the drug of choice for all patients. In the study, 27 percent of the TMP/SMX patients and 4 percent of the aerosolized pentamidine patients were switched to the other therapy because of side effects presumed to be related to the study medications.

An article in the August 14, 1991 issue of the *Journal of the American Medical Association* estimated that a strategy using TMP/SMX as first-line therapy for secondary PCP prophylaxis in patients able to tolerate either drug could result in a net savings of nearly $3,000 per patient per year.

MANY INFANTS ACQUIRE AIDS VIRUS AT BIRTH, TWIN STUDY SUGGESTS

A study that looked at the rates with which twins acquire human immunodeficiency virus (HIV) infection from their HIV-positive mothers suggests that, in a large proportion of newborns, HIV-infection occurs at or near birth, rather than earlier during pregnancy.

Women infected with HIV transmit the infection to some, but not all, of their offspring. Studies have shown transmission rates ranging from 13 percent to 40 percent.

NCI's Dr. James J. Goedert and colleagues obtained reports on 100 sets of twins and one set of triplets born to HIV-infected women. Forty investigators in nine countries contributed data to the study.

In 22 of the 66 sets of twins with complete data, the NCI scientists found that only one twin acquired HIV infection. Eighteen of these 22 infected twins were first-borns. Among first-borns, 50 percent of those delivered vaginally and 38 percent of those delivered by cesarean section were infected, compared with 19 percent of second-borns delivered by either route.

According to the investigators, the results suggests that many infants remain uninfected until delivery and that specific measures—such as cleansing the birth canal of HIV-infected women before delivery—might prevent some of these infections.

In addition to the association with birth order, the investigators found that infection status was alike in 14 of 17 sets of identical twins but in only 26 of 43 sets of non-identical twins. These results suggest that genetics may also play some role in determining whether or not infection occurs, since only identical twins have exactly the same genes.

This material was compiled by Charlotte Armstrong, Office of Communications, OD.

Town Meeting *(continued from p. 1)*

The 1½-hour session was punctuated by witty exchanges, heartfelt pleas, campaign rhetoric, and an underlying sense of purpose as the seven campus leaders made their cases in a series of short synopses.

Healy led off the proceedings, which she moderated, by underscoring her support for town meetings.

"I am committed to continuing them as long as you keep coming," she told a packed Masur Auditorium and, via television, outposts in other campus buildings and audiences at NIEHS, NIAID-Montana, NIA-Baltimore, NCI-Frederick, and NHLBI-Framingham, Mass.

"Each one of you—whether you're a doctor, an electrician, secretary, groundskeeper or policeman—is important to the mission of NIH," she said, justifying town meetings as an apt political metaphor for democracy. "NIH should be politics at its best."

Emphasizing that NIH "is not about science for its own sake, but about searching for cures for people who need them," Healy asked the panel, "How can we do better? How can we hurry?"

Her only caveat as she threw open the floor was that "we deal with the larger issues affecting NIH. I want this to be a lofty gripe session, not an ordinary gripe session."

Mason began with an endorsement of NIH's effort at self-improvement. "I support all your efforts to create a better NIH," he said. "The list of people who owe their lives to this agency is far more impressive to me than the number of Nobel prizes your scientists have earned."

Introduced by Healy as the "science senator," Mikulski called town meetings "timely and urgent" and promised to scrutinize the NIH reauthorization bill in Congress. "It needs to be as contemporary as the modern NIH," she said.

"Now that the Persian Gulf war is over, it's time to win the war for America's future," said Mikulski, who was making her third NIH visit since 1986. "If we work together, we can win the war for America's future just as we won the war in the desert."

Calling herself "one of the biggest fans of NIH," Mikulski said the agency is the "jewel in the crown" of the "corridor for the future" that lies between Baltimore and Washington and includes FDA, NASA, the National Institute of Standards and Technology, and NIH.

"NIH plays a life-saving role in the world's future," she declared. "I'm very proud to represent you, and I'm going to listen to those ideas that support you and this facility."

She allowed that Congress can be an obstacle to NIH: "There's a disease-of-the-week mentality that prevails some times. It gets the headlines, but contributes little to NIH's bottom line."

Mikulski called for a clear set of national goals, sustained funding, and a strategic plan—all initiatives supported already by Healy. She added, "People should not be penalized for working at NIH. I think sometimes your peers at Johns Hopkins are better off than you are at NIH."

Moderator Healy then observed that the senator "would play a skinny Oprah Winfrey" for the following panel discussion and would accept questions phoned in via fax machine.

"We'll be fax friends," quipped Mikulski.

NCI Surgery Branch chief Dr. Steven Rosenberg, a 17-year veteran of NIH, opened the testimony with a review of why NIH is good and how it must be better.

"NIH is a last resort for people with serious diseases. But a serious problem confronts senior scientists here. We're at a competitive disadvantage with respect to academic institutions. We're losing many of our best senior scientists, which is destroying the continuity of our efforts.

"Those who leave are getting two to three times their federal salaries, they are able to accept honoraria, and they are eligible for tuition credit for their kids. The rules are far, far more restrictive at NIH than at other institutions.

"We are losing people at the most productive times of their careers," he continued. "It's not that we don't have enough (budget)—we have a great deal—but in our current situation we just cannot compete with other academic institutions."

Dr. Steven Rosenberg addresses his concerns to Mikulski. He is flanked by Dr. Richard Klausner (l) and Drs. Ruth Kirschstein and Samuel Broder.

Speaking next was Dr. Richard Klausner, who, in addition to being chief of NICHD's Cell Biology and Metabolism Branch, is head of a task force on the intramural research program appointed by Healy.

"When examining the morale of intramural scientists, you have to consider why they come to NIH," he said. "They come for training, which is among the best in the world, and they come to do their life's work here. A problem arises because their work is frustrated by paperwork, rules and regulations that were never designed or tailored to the needs of this environment.

"All institutions have this problem," he allowed. "But the bureaucratic hurdles here affect all aspects of how we do business. There are hoops we have to jump through for procurement."

Among the problems involved with being a government scientist, he said, were that "we are inhibited from participating in the international research community (by travel restrictions). Also, there is not a personnel system at NIH, but a byzantine collection of personnel systems. There are artificial FTE ceilings, and pointless categories and classifications for employees. We need an integrated, free personnel system designed specifically for a biomedical research institution.

"NIH is fragile," he continued. "It depends on the ability to retain and support the best people. Changes must occur for NIH to remain the international beacon of biomedical research."

Next up was Dr. Stephen Epstein, chief of the Cardiology Branch, NHLBI, who discussed the impact of federal ethics laws on NIH.

"These laws have seriously eroded our ability to attract and retain the best scientists," he said. "Junior and midlevel scientists are discouraged from coming here. Most have large debts when they come, but are willing to forego larger salaries for the opportunity to work at the premier medical institution in the world. One inducement in the past has been the ability to accept modest honoraria. Travel to small towns, where the doctors are hungry for the latest information, also used to be possible. The present law prohibits compensation for such activities. But these things are routine at academic institutions.

Bernadine Healy moderated the discussion between audience and panel during the second town meeting in Masur Auditorium.

"Scientists here will still do these (extracurricular functions) without pay because it's crucial to science and improving health," he said. "But we are becoming second-class citizens. It disturbs me to see the impact on our junior and midlevel scientists. The honoraria ban strikes them as unfair and punitive—it doesn't exist in academia.

"We're not asking for special privileges," he concluded. "We just don't want to be treated as a penalized underclass."

Mikulski commented that Healy, as a federal worker, probably "lacks the managerial facility of the director of Johns Hopkins." She then targeted Klausner: "What are some of the specific things that drive you crazy?"

Amid the laughter provoked by the question, Klausner shot back, "You're talking about work, right?"

The much-honored NICHD scientist reiterated that "bureaucracy's requirements are being served ahead of those of science" and called for a more flexible personnel system tailored to biomedicine.

Mikulski said the ban on honoraria first occurred in Congress as a way of stopping payoffs through the back door. As applied to NIH, the regulations were to act as a "firewall" preventing grantee institutions from rewarding, surreptitiously, the grant-givers.

Objected Epstein, "NIH already had rules in place to exclude the receipt of honoraria by granters from grantees. NIH is the only academic group that can't receive honoraria at scientific meetings."

Added Rosenberg, "Ninety-eight percent of the scientists at NIH don't do any granting at all, but are still caught in the ban."

Mikulski, a former social worker who demonstrated skill at getting to the crux of matters, asked, "What is consulting?"

Rosenberg said it sometimes comes in the form of collaborating with industry. Offered Epstein, "The supreme irony is that I can't go to Howard University or Harvard and give grand rounds, but I can go consult with a drug company. It's incongruous."

Snapped Mikulski, "It's more than incongruity. It just doesn't make sense."

NCI director Dr. Samuel Broder said NIH's great strength is that "it serves as a career development opportunity for young men and women to pursue careers in clinical investigation, to learn

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the art form of taking basic research to the bedside. We need to attract those who still have fire in their belly to get things done. Later on in their careers, these investigators can take their insights outside NIH, but training remains our most important resource. I'm afraid, though, that we've created an atmosphere where that's difficult to do."

New recruits to NIH typically face debts of $100,000 to $120,000 from medical school, he said, a burden that "drives people out of clinical investigation. They can't endure the uncertainties involved with working here, so they go to private practice or industry."

Broder said the creative use of loan forgiveness options would be worth exploring, such as is done with AIDS investigators. He then offered the example of Dr. Eli Glatstein, chief of NCI's Radiation Oncology Branch, who is leaving NIH in February 1992 for an academic appointment in Dallas.

"Eli has trained seven department chairs in radiotherapy in the 15 years he has been with us," he said.

Glatstein's case underlines two issues —NIH's importance as a training center and its weakness when it comes to retaining excellent people.

In conclusion, Broder characterized training as "the stage of life when you recognize that things aren't impossible —that's when things can get done."

Rising from the audience, NIAID director Dr. Anthony S. Fauci told Mikulski that the loan forgiveness program for AIDS researchers is a major factor in recruitment and has been very successful. "If extended to the rest of NIH (research), I think it would have a major positive impact on scientists of all biomedical research disciplines," he said.

Dr. Lynn Gerber, who in addition to being chief of the Clinical Center's department of rehabilitation medicine also belongs to Klausner's task force, reported on the hospital's health.

Dr. Anthony S. Fauci rose from the audience to testify that a loan forgiveness program in AIDS research has been a major factor in attracting bright young scientists to NIH.

"The Clinical Center is a living laboratory," she said. "It's often called the heart of the intramural program. It sets the tempo for intramural research at NIH. But we are severely constrained by our physical plant. Our flow hoods don't work properly, and the electrical system is poor. We're working in a failing heart."

Gerber admitted that a great staff has permitted the CC to do excellent work and gain accreditation, but said "even super people can't meet the severe challenges of space. We can't transfer biomedical specimens or mail down our hallways. A new hospital is needed. We need the flexibility to respond to initiatives, to be able to turn on a dime. Hiring is also a problem— we need to do it quickly, but can't. We don't have the opportunity to turn around good ideas and apply them in the clinic."

Turning more explicitly to campus infrastructure, Paul Horton, director of the Division of Space Management and acting director of the Office of Research Services, identified himself as a "representative of the silent majority at NIH—I'm a Mr., not an M.D. or Ph.D. The doctors here may be the soldiers in the trenches, but we built those trenches, and those trenches are failing," he reported.

"Throughout the campus, the infrastructure is failing. We have played Russian roulette with our building systems in order to keep science going. We need a vision and strategic planning, which Dr. Healy is providing. We also need sustained and adequate funding. We're running out of room to house staff."

Observed Mikulski, "You're talking about a capital improvement budget that any mayor would have."

Last of the panelists to report was NIGMS director Dr. Ruth Kirschstein, whom Mikulski summoned with a friendly, "Dr. Ruth?"

A veteran of 36 years at NIH, half as an intramural scientist and half as an administrator, Kirschstein labeled the collaboration between intramural and extramural NIH "essential" and thanked the senator for her support of the Natcher Bldg., a structure to be built by the end of this decade that will house many administrators now occupying rental buildings in the area.

She then got to her point—funding for research training and fellowships is paramount, particularly since one-third of the next generation of scientists will be women and minorities.

"They need support, particularly in the early part of their careers," she stated. "We need to catch the curiosity of youngsters, and to assure stability for those who choose biomedical careers."

Their testimony completed, the panel then yielded the floor to members of the audience. Dr. Faye Calhoun, deputy chief for review in DRG's Referral and Review Branch and a 10-year NIH veteran, led off by asking

Mikulski, "What steps can we take to assure continued growth?"

"As we move to a peace dividend environment, we need to take weapons research money and apply it to medicine," said the senator. "Right now, more than 70 percent of the federal research dollar goes toward defense. I want to see a transition economy, where we reduce the amount spent on defense and move money to civilian research. By the end of this century, I would like to double the funding at NIH."

Repeating charges she made at the first town meeting, Dr. Margaret Jensvold said salaries and benefits aren't the only thing causing scientists to leave NIH: "Some scientists leave NIH because of being pushed out," she said.

"Sexual discrimination and retaliation are almost universal. Workplace harassment is common. NIH doesn't deal with it, and, in fact, contributes to it. We need more women in the top ranks at NIH. There needs to be intolerance of discrimination, and meritorious complaints (of harassment) should be settled rather than drawn out in court."

Jensvold asked Mikulski to support legislation extending the window for filing an EEO complaint from 90 to 180 days. "Harassment and discrimination are getting worse at NIH, not better," she concluded.

"I am committed to ending sexual harassment," Mikulski declared. "I happen to view sexual harassment as a term that's not adequate. It's more like tyranny and hostility."

Mikulski intends to cosponsor legislation streamlining the Equal Employment Opportunity Office. "I'm on (Sen.) John Glenn's wingtips every day about this," she said. She also intends to meet with Office of Personnel Management Director Constance Newman about adopting a federal tutorial on harassment that would precede a federal worker's employment. "We need to deal with the problem at the front end, not clean up after." The senator also said she has taken concerns expressed to her by mail on this subject to both Healy and Mason.

"I assure you these events are repulsive to me," added Healy. "I plan to meet with SHER (the employee group self-help for equal rights) within the week."

Elaborating further on procurement difficulties, NCI's Dr. Bruce Chabner, director of the Division of Cancer Treatment, rose from the audience to complain that any purchase over $25,000 requires that the government advertise and obtain three bids.

"Almost all the equipment we use in biomedical research costs this much," he said. "These hurdles are really creating a problem for intramural research." Mikulski said, "I would like very much to be able to help. But I also want to assure that the taxpayer gets a dollar's worth of research for a dollar's worth of taxes. Procurement is really a quagmire."

Thirty-year NIH veteran Dr. Zekin Shakhashiri, now retired, called for coordination of three important programs at NIH—prevention, nutrition and technology transfer. In slightly fractured English, he urged Healy (whom he termed "the chief lady of the place") to "coordinate and integrate" various programs for the betterment of NIH.

Dr. Zekin Shakhashiri, a 30-year NIH veteran, makes his opinions known to the gathering during the open session.

The last questioner was Sumpter Embrey III, an NIH fire fighter who told Mikulski that the fire squad is overworked, underpaid and poorly quartered —the firehouse is almost 40 years old and can't hold the expensive equipment used to fight fires and answer emergencies.

"We have the same retention problems for the firemen as for the doctors," he said. "We need support from Congress to increase pay and reduce work hours." Firemen at NIH typically put in 72-hour weeks, said Embrey. Ninety-six hour weeks are not uncommon.

"I support a locality pay increase of 8 percent for all federal jobs," Mikulski told Embrey, to loud applause. "I will talk with Dr. Healy about these concerns."

At that point, Healy approached the diminutive senator with an honorary lab coat for her to take with her.

"I'm always nervous when doctors want to give me a white coat," joked Mikulski. "I'm an old social worker and I know what a white coat means," she said, rolling her eyes. "There she goes."

Wrapping up the session, Mikulski emphasized that "there can be no NIH without a strong, robust intramural program." She pledged to revisit the NIH reauthorization bill and said NIH could count on her to introduce legislation on recruitment/retention, loan forgiveness, prohibitions on honoraria, and infrastructure needs.

"I've learned a lot today about your needs and your willingness to do the job under tough circumstances," she said. "You are one set of excellent troops in the battle for our future, and I intend to work with you, including the 'chief lady of the NIH.'"

Man and Manometer

Van Slyke Exhibit Illuminates Soul of a Machine

By Rich McManus

A couple of eminent "Van Slickers" visited NIH Oct. 18, 1991, to help open the newest exhibit in the DeWitt Stetten, Jr. Museum of Medical Research at NIH.

Drs. Rollin D. Hotchkiss and Reginald Archibald, professors emeritus at Rockefeller University, participated in a seminar designed to explain the workings and significance of an odd piece of equipment known as a Van Slyke manometric apparatus.

Located under glass in the conference lounge area on the sixth floor of Bldg. 31C, the apparatus contributed mightily to both basic and clinical research between 1920 and 1960.

The apparatus, now supplanted by chromatography and spectroscopy, resembles some sort of glassblown hallucination from the set of a Frankenstein film. On top of that, it shimmies like a paint shaker at the press of a button.

Hotchkiss, a biochemist and geneticist best known for his DNA research, gave a history of the instrument he bequeathed to NIH after using it in research from 1925 to 1949.

"We used it for the microanalysis of blood gases," he reported. "It helped define an early class of antibiotics and was used to study such substances as urea, amino acids, glucose and cholesterol.

"Old and young people have survived better because of the Van Slyke machine," he concluded.

Why call it a "machine" rather than an instrument, queried Dr. Victoria Harden, who directs the museum and heads the NIH Historical Office? "Machine was an endearment," chortled Hotchkiss. "It means it's part of your family."

Archibald, a biochemist and pediatric endocrinologist, gave an overview of clinical applications to which the apparatus was put. A collaborator at Rockefeller with the instrument's inventor, Dr. Donald D. Van Slyke, Archibald noted that the Van Slyke machine helped scientists (known as Van Slickers) measure carbon dioxide concentration in blood, aided in diagnoses of diabetes and nephritis, and offered explicit quantitative measures of amino acids and other biological compounds. Van Slyke himself, reported Archibald, was tirelessly inventive and an eminent contributor to medicine, although he was not an M.D.

"Van Slyke didn't attend medical school, except as a teacher, but made great contributions to medicine nonetheless. He was a chemist who won the respect of clinicians," Archibald said.

The machine's inventor was editor of the *Journal of Biological Chemistry* from 1914 to 1924, and "his tenacious persistence wedded chemistry to medicine," Archibald noted. "(Van Slyke) unraveled mysteries of the blood, lung and kidney, revised the Army's chemical manual, masterminded the treatment of patients with oxygen, and improved our understanding of acid/base balance. He was also a remarkable teacher— many full professors and department heads were either trained by him or by people whom he had trained."

Hotchkiss reported that the NIH museum's call for a Van Slyke apparatus reached him in Albany.

"I last used the machine at Rockefeller University in 1948 or '49," he said, "and then I let it sit around for a few years. Finally I put it up on top of a lab hood and promptly forgot about it while I went on with other work. When NIH called, I went back to Rockefeller and there it was. I cleaned it up a bit and here it is."

Among those who sat in on the seminar introducing the exhibit was NLM director Dr. Donald Lindberg, who had trained on the machine at Columbia during the waning days of its use.

Anyone wishing to see the exhibit, or who wants to know what the machine really did, may consult the Van Slyke manometer itself and an accompanying history brochure, written by exhibit curator Dennis Rodrigues.

"Whoever wrote that brochure really knows what this machine is all about," endorsed Archibald. "He can use my Van Slyke any time."

Setting up a projector for the seminar on the Van Slyke apparatus are (from l) Archibald, Hotchkiss, and exhibit curator Dennis Rodrigues of the NIH Historical Office.

NEI Emphasizes Testing for Blindness, Glaucoma Causes

NEI recently issued recommendations for the detection of two leading causes of blindness, glaucoma and diabetic eye disease, and warned that many Americans who are at high risk for these diseases are not seeking adequate eye care, based on findings from a new national survey.

NEI recommends people with diabetes should undergo an eye examination through dilated pupils at least once a year; and people at high risk for glaucoma, especially blacks over age 40 and all people over age 60, should receive an eye examination through dilated pupils every 2 years.

"Millions of people could be saved from vision loss, even blindness, by following these recommendations," said Dr. James Mason, HHS assistant secretary for health, who announced the recommendations. "There are 120,000 Americans currently blind from glaucoma alone. And about half of the 14 million Americans with diabetes will develop eye problems."

HHS also launched the National Eye Health Education Program—the first federally sponsored, nationwide eye health education program. NEI will coordinate the program, working with 37 private and public organizations.

At the news conference, a videotape was shown of HHS secretary Dr. Louis W. Sullivan having a dilated eye examination for glaucoma to help publicize the importance of early detection of this disease. Sullivan is at high risk for glaucoma, as are all blacks over 40. Blacks are five times more likely to develop glaucoma than whites and four times more likely to become blind from the disease.

"When one considers how dependent most Americans are on their vision," said Sullivan, "it is troubling that so many who are at risk for glaucoma either are not having their eyes examined, or are receiving inadequate testing."

Dr. Carl Kupfer, NEI director, responds to media questions during the Dec. 12, 1991, press conference that launched the National Eye Health Education Program. In the background is Dr. James Mason, head of the Public Health Service.

NEI officials also released findings from a national survey conducted last year to determine the public's awareness of the facts about eye disorders and what constitutes proper eye care. The survey of 1,250 adults was co-sponsored by NEI and the Lions Clubs International.

The survey found that about three-fourths of the nearly 450 respondents at high risk for glaucoma said they were examined for the disease in the last 2 years. However, less than half of those tested said their pupils had been dilated during the examination, an essential part of effective glaucoma detection.

Glaucoma is a disease that occurs when the eye's fluid pressure rises, leading to progressive optic nerve damage. If left untreated, glaucoma may lead to blindness.

Dr. Carl Kupfer, NEI director, said many Americans are screened for glaucoma with tonometry, a test that measures the pressure within the eye.

"Studies show that although tonometry is useful in detecting glaucoma, this test alone does not provide an eye care professional with enough information to diagnose the disease," he said. "People at high risk for glaucoma should have an eye examination through dilated pupils every 2 years, in addition to tonometry, to find glaucoma early, when it is most controllable."

Kupfer said complete glaucoma testing should include pupil dilation, where drops are placed into the eyes to allow a thorough examination of the retina and optic nerve for signs of damage; tonometry; and when indicated, a visual field test, which can detect early loss of peripheral vision.

About 3 million Americans have glaucoma, but almost half of them do not know it. The most common form is open-angle glaucoma, which is most prevalent in the general United States population over age 60 and blacks over age 40.

In addition, many of the country's 14 million people with diabetes are unaware that they are at risk for diabetes-related eye problems, and many are not obtaining regular eye examinations through dilated pupils, according to NEI.

For more information about glaucoma or diabetic eye disease, write: National Eye Health Education Program, Box 20/20, Bethesda, MD 20892.

NIH Notes for October 1991—January 1992

HONORS AND AWARDS

Dr. Peter Aplan, a biotechnology fellow in the laboratory of Dr. Ilan Kirsch in NCI's Pediatric Branch, was presented the 1991 Young Investigator Award by the American Society of Pediatric Hematology /Oncology. His award was for his research in the "successful identification of a new leukemogenic oncogene" ... **Gladys Atkinson,** NIH procurement official, has received from the National Business League of Montgomery County its Award of Excellence for her significant contribution to the minority business community ... **Ronald D. "Denny" Dobbin,** NIEHS program administrator, has been elected a fellow of the Collegium Ramazzini, an international organization that was created to study occupational and environmental health questions around the world ... **Dr. Michele R. Evans,** Clinical Center safety officer, recently won the Public Health Service Achievement Medal for directing efforts to meet the Joint Commission on Accreditation of Healthcare Organization standards on plant technology and safety management ... **Dr. Anthony S. Fauci,** director of NIAID, received an award from the American Foundation for AIDS Research in honor of his "extraordinary leadership and personal scientific contributions to the AIDS effort" ... **Dr. Michael Gottesman,** chief of NCI's Laboratory of Cell Biology in the Division of Cancer Biology, Diagnosis, and Centers, delivered, on Jan. 22, the NIH Lecture on "Molecular Analysis of Resistance to Anti-Cancer Drugs," which reviewed progress in understanding why tumors resist chemotherapy ... **Dr. Mark Hallett,** clinical director and chief of the Medical Neurology Branch, NINDS, was recently elected president of the American Association of Electrodiagnostic Medicine, which is the largest clinical neurophysiology association in the United States ... **Dr. Stephen I. Katz,** chief of the Dermatology Branch, NCI, received the 1991 American Academy of Dermatology Award for Excellence in Education on behalf of his branch. The award was presented in December at AAD's annual meeting ... **Dr. Werner H. Kirsten,** associate director of NCI's Frederick Cancer Research and Development Center, recently received from the Leukemia Society of America its National Leadership Award. The award honors past or present members of the society's national board of trustees, on which he has served since 1986. He has been active in leadership roles with the society since 1976 ... **Dr. Richard Klausner,** chief of NICHD's Cell Biology and Metabolism Branch, was honored by several institutions around the country for his seminal contributions to cell biology and biochemistry. In October he delivered the three Lamport Lectures at Columbia. In November he gave the Fagan Memorial Lecture at Stanford as well as the Shannon Lecture. His lectures have summarized advances he has made in three separate areas of biology ... **Dr. Robert S. Langer,** an NIGMS grantee and Germeshausen professor at the Massachusetts Institute of Technology, recently became the first synthetic polymer chemist to be elected to the Institute of Medicine of the National Academy of Sciences ... **Dr. Lance Liotta,** chief of NCI's Laboratory of Pathology, has been named recipient of the 1991 Lila Gruber Memorial Cancer Research Award. The award, established in 1972 by Murray Gruber in memory of his wife, recognizes and supports cancer research. The award includes a cash prize of $10,000. It was presented at the annual meeting of the American Academy of Dermatology in December ... **William "Cy" McGee,** an architect in the Facilities Engineering Branch, NIEHS, has been voted president-elect of the Triangle chapter of the Construction Specifications Institute—an organization of professionals in the construction industry including architects, engineers, specifiers, contractors, product manufacturers and property owners. He has been involved in the development and operations of the NIEHS campuses for many years ... **Dr. Louis H. Miller,** head of the malaria section of the Laboratory of Parasitic Diseases, NIAID, delivered the ICAAC Lecture at the 31st Inter-science Conference on Antimicrobial Agents and Chemotherapy, sponsored by the American Society for Microbiology, in Chicago. His talk on "The Eyes of the Hippopotamus," addressed how science today can develop tools to combat malaria ... **Dr. Philip A. Pizzo,** chief of NCI's Pediatric Branch, has been named one of two recipients of the 1991 Barbara Bohen Pfeifer Award for Scientific Excellence. The award, which included a certificate and $10,000, was presented on Dec. 8 by the American-Italian Foundation for Cancer Research ... **Dr. Judith L. Rapaport,** chief of NIMH's Child Psychiatry Branch, has received from the NIH Toastmasters Club its Communication Achievement Award ... **Dr. Steven A. Rosenberg,** chief of NCI's Surgery Branch, was presented in December with the 1991 Sheen Award. The $25,000 award, named for the late Thomas G. Sheen, is presented annually "to further the study of medicine and the science of medicine and to compensate the doctor or doctors who have each year done something outstanding in the medical profession." He received the award and presented a lecture at the annual meeting of the New Jersey chapter of the American College of Surgeons ... **Corrine Vanchieri** of NCI was recently presented with the Rose Kushner Award for writing achievement in the field of breast cancer. Along with coauthor Miriam Adams of Adams Associates, she was recognized by the American Medical Writer's Association for the NCI brochure, "Women in the Workplace: The Challenge of Breast Cancer." The annual award is for outstanding medical writers who have made a significant contribution to the fight against breast cancer.

APPOINTMENTS AND PERSONNEL CHANGES

Dr. Donna J. Dean, chief of the biological sciences review section at DRG, has been appointed chair of the NIH Grants Associates Board for 1992. The board, which reports to Dr. George Galasso, NIH associate director for extramural affairs, is comprised of senior level NIH health scientist administrators who have broad experience within the Public Health Service and who are familiar with extramural research administration ... **Dr. Leon B. Ellwein** recently returned to NIH to join NEI as a consultant to the director. Before coming to NEI, he was professor and associate dean for research at the University of Nebraska Medical Center for 8 years, and for 11 years prior to that he was senior technical advisor at the Science Applications International Corporation. In 1966, he had served as a systems planning and analysis officer at NCI before leaving NIH in 1972 ... **Dr.**

Martin H. Goldrosen, a member of the staff at Roswell Park Cancer Institute, recently joined NCI as a scientific review administrator within the Grants Review Branch, Division of Extramural Activities ... **Dr. Dushanka Kleinman,** a researcher who has been investigating the epidemiology of oral mucosal tissue diseases and disorders, has been named deputy director of NIDR. She joined the institute in 1980 and has held management positions both as a researcher and an administrator within NIDR. "She is an accomplished researcher and administrator," said NIDR director Dr. Harald Löe. "Her experience on policy issues will be invaluable in furthering the goals of the institute. We are all pleased to have her as deputy director" ...

NIDCD director Dr. James B. Snow, Jr. (l) welcomes his new director of intramural research Dr. David J. Lim

... **Dr. David J. Lim,** a noted otolaryngologist, has been named the first director of the Division of Intramural Research for NIDCD. He comes from Ohio State University College of Medicine, where he was director of the otological research laboratories in the department of otolaryngology. In his new NIDCD position, he will oversee the institute's basic and clinical research programs, which currently consist of four branches and five laboratories. He will be responsible for directing a multidisciplinary program that encompasses hearing, balance, smell, taste, voice, speech and language, and for integrating new research activities into the division's structure. The division currently has a staff of approximately 62 employees and an annual budget of $7 million ... **Dr. Robert R. Maronpot** has been named chief of NIEHS' Experimental Toxicology Branch, which provides data to support the characterization of toxicological properties of important consumer, industrial, and environmental chemicals ... **Dr. Richard Pannier,** assistant professor of oncology and biochemistry, University of Rochester, has been appointed scientific review administrator in the Division of Research Grants, where he will be responsible for the management of special study section Z, one of 101 review groups in DRG's Referral and Review Branch. These groups provide the first level of NIH's peer review system of awarding research and training grants ... **Michele Russell-Einhorn,** an attorney, has been named to staff the permanent office at NIH for the HHS Special Counsel for Ethics. This office will be available to assist all NIH employees in dealing with important and complex issues such as outside activities, financial disclosures, and conflict of interest. **Gloria Frank,** also an attorney, will be working in the office on a temporary basis for the next several months ... **Gail Thorsen,** a professional traffic mitigator, has been named to head a recently established Employee Transportation Services Office in NIH's Division of Security Operations. Her job will concentrate not only on the parking problems, but also all the logistics involved with transportation at NIH ... **Dr. Kirt J. Vener** has been named chief of NCI's prevention, epidemiology and control review section in the Grants Review Branch, Division of Extramural Activities. This review section provides NCI with peer review of program project applications and RFA submissions relevant to cancer, epidemiology and prevention. Before his appointment, he was a scientific review administrator with NIAMS ... **Dr. Nadarajen A. Vydelingum,** from the Memorial Sloan-Kettering Cancer Center and the Memorial Hospital for Cancer and Allied Diseases in New York City, is the new scientific review administrator of special study section 8 in DRG's Referral and Review Branch.

RETIREMENTS

Betty J. Beveridge, NIH committee management officer, retired recently after a long and varied career with NIH. She began working in the Division of Research Grants, and most of her NIH service was in the Office of the Director. During her tenure, she saw the number of NIH chartered advisory committees climb from 133 to 192 and saw membership increase by 45 percent from 2,336 to 3,394, making them part of the largest public advisory committee system in the federal government. She was honored at a farewell reception where representatives from the General Services Administration (which has oversight responsibilities for all government chartered committees) commented that GSA "looks to NIH to set the standard," primarily because of her knowledge and skills. In addition to travel, her retirement plans include marriage to John Kelsey and a move to the Virginia suburbs ... **Dr. Arnold Brossi** of NIDDK's Laboratory of Structural Biology retired in October to join the faculty at Georgetown University and become NIH scientist emeritus. In his 40-year career, he contributed greatly to the development of new antimalarial drugs. He also researched and synthesized biologically active natural products that may prove useful in treating liver disorders, familial Mediterranean fever and Alzheimer's disease. He has won many honors during his distinguished career. During his tenure at NIH, he has directed the research of 41 postdoctoral fellows from 178 countries and published more than 360 scientific papers. He plans to continue his collaborations with several NIH researchers. He is also looking forward to having more time for his hobbies, which include mushroom collecting in the Alps and salmon fishing in Nova Scotia ... **Maj. Howard S. Davenport,** a 35-year veteran of NIH's police force, retired Jan. 3, having witnessed the maturation of NIH's Division of Security Operations from a security department to a professional police force. He has no firm after-retirement plans, but he intends to enjoy his leisure time ... **George S. Luhn,** inventory management specialist for the Supply Branch, Division of Logistics, retired recently after 44 years with NIH; his total federal service encompassed 48 years. He came to work at NIH in 1946 and began his career as a file clerk in Bldg. T-6. In 1951, he transferred to the Supply Unit and worked as a store worker in the subbasement of Bldg. 1. "NIH is a wonderful place to work. To watch it grow and change over the years has been exciting," he said. In retirement, he is planning on traveling

(continued on p. 28)

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with his wife, taking care of his lawn in Olney, and just relaxing ... **Dr. William C. Mohler,** associate director of DCRT, retired on Nov. 30. A retired PHS commissioned officer, he had administered DCRT programs and operations for more than 24 of the 34 years he was at NIH. He was involved with the NIH Information Resources Management Council and served as its executive secretary from 1985 to 1990. His professional life was dedicated to biomedical research and management at NIH. His retirement plans include spending time with his family and being involved in community work ... **Adele Nusbaum,** program analysis officer in the Division of Cancer Prevention and Control at NCI, has retired. She spent 17 of her 22 federal years at NIH. She directed NIH's first equal opportunity program and has watched the percentage of women at NIH increase from nearly 15 percent since 1971 to nearly 60 percent of the NIH workforce in 1988. Her post-retirement plans include consulting on some short-term projects and traveling to Thailand ... **Agnes Poole** retired Jan. 3 from the Division of Engineering Services north maintenance section after 45 years of federal service. The recipient of many awards, including her most recent excellent performance in 1990, she is "looking forward to retirement and sleeping late" ... **Vince Sabados,** a shop planner who took trouble calls and dispatched them to engineers in the Division of Engineering Services' north maintenance section, retired on Jan. 3 after 31 years at NIH. He plans to stay in the area, visit old friends in Pennsylvania often and do a lot of fishing ... **Dr. Daniel Seigel,** associate director for biometry and epidemiology at the National Eye Institute, retired Nov. 3 after 14 years with the institute. He has been responsible for providing statistical leadership to nationwide clinical trials and epidemiologic studies of eye disease. In retirement, he plans to move "down east" to Maine, where he will spend more time sailing, vegetable gardening, making ceramics, teaching English country dancing, and "shoveling snow." If time permits, he may collaborate in clinical research ... **Jean Stein,** administrative officer with NCI's Epidemiology and Biostatistics Program, retired Jan. 3, 1992, after more than 30 years in government service, 27 1/2 years at NIH. During her career at NIH she saw many changes take place; one of the most striking is that the situation for women has improved since her early days. In 1972, she was a member of the first STRIDE class, enabling her to return to college and attain her bachelor's degree under the auspices of the federal government. She also participated in productions of the Hamsters and has performed with other local theatrical groups. She is looking forward to not getting up at 5:45 in the morning or packing a lunch ... **Jeanne Gravely Waggoner,** a chemist in the liver diseases section of NIDDK since its inception in 1973, retired recently after 34 years at NIH. She began her career as a chemist in NCI's Metabolism Branch in 1957, working with Dr. Nathaniel Berlin. She not only worked with many of the top scientists at NIH, but also trained scores of young scientists in laboratory techniques. Looking back, she is impressed with how much medical research has advanced during the past 30 years. She is looking forward to doing more gardening, reading and traveling. She hopes to go to Spain for the Olympics.

DEATHS

Genevieve H. Atterberry, 80, a retired budget analyst with NIH, died of heart ailments Sept. 26 at Suburban Hospital. About 1957, she went to work for NIH, and she retired in the early 1970's ... **Dr. Gerald Aurbach,** 64, chief since 1973 of the Metabolic Diseases Branch of what is now the National Institute of Diabetes, Digestive and Kidney Diseases, died of a head injury Nov. 4 in Charlottesville. He had been hit on the head by a stone thrown from a passing car. A suspect has been arrested. Aurbach was an internationally honored and renowned leader in the study of parathyroid disease; 30 years ago he isolated the parathyroid hormone —one of the major regulators of blood calcium. This accomplishment made possible numerous related basic and clinical studies that had enormous impact upon the lives of patients. He was elected to the National Academy of Sciences in 1986. He was also honored with the Gairdner Foundation International Award in 1983 and named Centennial Distinguished Alumnus by the University of Virginia in 1988 ...

Dr. Gerald D. Aurbach

... **Anne Barclay Barahona,** 31, a computer researcher who had worked at NIH, died Dec. 24 at Washington Adventist Hospital. She had hepatitis. In the late 1980's, she worked as a researcher with NIH ... **Dr. Benjamin D. Blood,** 77, a veterinarian and public health officer, died Jan. 20 after a heart attack. He was the retired executive director of NIH's interagency primate steering committee, where he worked on securing nonhuman primates for scientific research. He was also active in primate conservation work. After he retired from NIH and PHS in 1979, he worked as a consultant for several years to the World Health Organization ... **Dr. Donald S. "Mike" Boomer,** 71, a research psychologist at NIMH who, in 1977, became director of the Treatment Center of the Washington School of Psychiatry, died of heart ailments Dec. 19 at the Clinica Union Medica in San Miquel de Allende, Mexico. He had moved to Mexico after he retired from his practice in 1990. He joined NIMH in 1954 and remained there until 1977 when he joined the Washington School of Psychiatry. He retired from there in 1985. He was a specialist in psycholinguistics ... **Dr. John Francis Brennan, Jr.,** 33, an oncologist who supervised cancer treatment studies at the National Cancer Institute, died of complication of AIDS Oct. 28 at his home in Washington. He came to NCI in 1987 as a fellow in medical oncology and

joined the staff as a senior clinical investigator in 1990 ... **Louretta B. Doherty,** 83, a retired employee at NIH, died of heart ailments Jan. 1 at Washington Hospital Center. In 1959, she went to work at the NHI where was she administrative assistant to the director of extramural programs until she retired in 1978... **Loye L. Downey,** 78, a secretary at NIH from 1944 to 1975, died of cancer Oct. 31 at Fernwood House nursing home in Rockville ... **Dr. John D. Douros, Jr.,** 60, a bacteriologist who from 1972 until 1982 was chief of natural products and drug development at NCI, died of chronic lymphocytic leukemia Nov. 12 at the North Carolina Baptist Hospital in Winston-Salem, N.C., where he had retired. Before joining NCI, he worked for several pharmaceutical companies and after he left NCI he joined Bristol-Myers. He retired in 1989 as vice president of drug licensing. He held more than 50 patents related to drugs for cancer treatments ... **Dr. DeWitt S. Goodman,** 61, died Nov. 4 of a pulmonary embolism at Columbia-Presbyterian Medical Center in Manhattan. He was Tilden-Wegen-Bieler professor of preventive medicine at Columbia and director of the university's Specialized Center for Research in Arteriosclerosis and of its Institute of Human Nutrition. He was also president of the New York chapter of the American Heart Association. He had been at NIH in 1956-58 and 1960-62 in the Laboratory of Metabolism Investigation at the NHI ... **Dr. Russel J. Hilmoe,** 70, former associate director of the NIGMS Cellular and Molecular Basis of Disease Program, died Nov. 23 following an extended illness. He retired in early 1977 after having spent 32 years in federal service, 28 of them at NIH. In 1948, he joined the NIAMD as an intramural scientist. His research focused on nucleic acid biochemistry. He began working at NIGMS in 1964. Following his retirement he became executive officer of the American Society of Biochemistry and Molecular Biology. From 1980 to 1982, he worked at the National Academy of Sciences as staff officer of the committee on human resources of the National Research Council. During the past several years, he worked as a consultant in science administration ... **Ada B. Murphy,** 94, died of pneumonia Oct. 25 in Hyattsville at the Sacred Heart nursing home. In 1941, she joined the Public Health Service, where she worked on tuberculosis surveys. She later transferred to NIH and retired in 1965 as a lab technician ... **Lawrence A. Sator,** 68, a retired employee of NIMH, died of cancer Nov. 23 at the Fox Chase nursing home in Silver Spring. He was an engineering technician with NIMH for 11 years before retiring in 1977. In that position, he helped build and repair technical equipment... **Dr. William M. Taylor,** 71, an experimental and physiological psychologist who was a retired health scientist administrator at NIH, died of complications from strokes Dec. 7 at the Potomac Valley Nursing and Wellness Center in Rockville. He retired in 1985 after 20 years with NIGMS, where he developed training programs in behavioral sciences. He was a former executive secretary of NIH's behavior sciences training committee ... **Dr. Mary Ford Waldrop,** 78, a retired child development researcher at NIH, died Nov. 19 at Seton Hospital in Austin, Tex., where she was visiting her daughter. She had myasthenia gravis. She began her career at NIH in 1962, and conducted a long-term research project on inherited behavior as identified by physical anomalies until her retirement in 1985. She had also organized a nursery school at the White House for the children of President John F. Kennedy.

The National Heart, Lung and Blood Institute
Announces a Conference in Honor of

Marshall Nirenberg

"Genes and Development: Twenty-Five Years After Deciphering the Genetic Code"

May 7 and 8, 1992, in the Masur Auditorium, Bldg. 10. Preregistration by April 15, 1992, is required.

Guest speakers will include:

W. French Anderson	David Baltimore
Paul Berg	Mario Capecchi
C. Thomas Caskey	Pierre Chambon
Ronald Evans	Walter Gehring
Peter Greuss	Thomas Maniatis
Steven McKnight	Beatrice Mintz
Robert Roeder	Michael Rosenfeld
Matthew Scott	Robert Tjian
Harold Weintraub	

For information call (301) 468-6338

Book Briefs

Publications of Interest To NIHAA Members

Emil J. Freireich and Noreen A. Lemak. *Milestones in Leukemia Research and Therapy.* Baltimore: Johns Hopkins Univ. Press, 1991. xi; 260 pp.; illus.; index. $60.

Dr. Emil J. Freireich, the Ruth Harriet Ainsworth Professor of Developmental Therapeutics, and Dr. Noreen A. Lemak, a research associate with him in the department of hematology at the University of Texas M.D. Anderson Cancer Center, have written a comprehensive history of leukemia since the first reported case in 1827 to the present. It is a work that will be of interest not only to physicians and researchers in the field, but also to historians of medicine.

Elizabeth Moot O'Hern. *Profiles of Pioneer Women Scientists.* Washington, D.C.: Acropolis Books, Ltd., 1986. 264 pp.; illus.; index. $18.95.

This book by Dr. Elizabeth M. O'Hern, a retired NIH health administrator and microbiologist, profiles the lives and scientific achievements of 20 women microbiologists over the last 150 years. Chapters X-XV are on 6 women scientists—Ida A. Bengtson, Alice C. Evans, Sara E. Branham, Bernice E. Eddy, Sarah E. Stewart and Margaret Pittman—all of whom were at NIH.

Solomon H. Snyder. *Brainstorming.* Cambridge: Harvard Univ. Press, 1989. 208 pp.; illus.; index. $22.50.

Dr. Solomon H. Snyder, who is director of the department of neuroscience at the Johns Hopkins School of Medicine, has written a book that not only details the scientific nature of his discoveries in opiate research, but also the political aspects and realities that were involved in it.

NIH Retrospectives

N.I.H. record

FEDERAL SECURITY AGENCY

Winter 1952

A pure form of vitamin B6 has been produced synthetically for the first time by Drs. Elbert A. Peterson, Herbert A. Sober, and Alton Meister of NCI's Laboratory of Biochemistry ... The Hamsters have come out of hibernation and presented their third annual production, "Twice Upon A Time," written by Zelda Schiffman and Phil Janus; directed by Rosalie Kasaba; choreographed by Hazel Rea and Rose Wolitsky; and produced by Jack Beecher. It was a big hit ... Dr. George McCoy, Director of the Hygienic Laboratory for 22 years, died of a heart attack Apr. 2, 1952, in Washington, D.C.

the Record

Winter 1962

Dr. Sara E. Branham, 74, a pioneer in the field of biologic research, died at her home in Washington, D.C., on Nov. 16, 1962. She had retired from NIH in 1958 after more than 30 years of government service ... Building 31 was recently awarded the Oliver Owen Kuhn Cup for 1961 by the Bethesda-Chevy Chase Chamber of Commerce. The award is given annually to the group or person contributing the most toward making Bethesda-Chevy Chase a better place in which to live. The first cup was awarded posthumously in 1938 to Luke I. Wilson for donating the original tract of land on which NIH is located ... Dr. Thelma B. Dunn, head of the cancer induction and pathogenesis section of the Laboratory of Pathology, NCI, was selected as one of six recipients of the second annual Federal Woman's Award.

the NIH Record

Winter 1972

The NIH in February announced that it will assist in the implementation of a new agreement between the United States and Soviet Union to expand collaboration in the study of cancer, heart disease, and environmental problems ... A "Turn Off the Lights" campaign has been started at NIH not only to save nearly $100,000 in operating costs, but to save energy as well.

The NIH Record

Winter 1982

Dr. David B. Scott, director of the National Institute of Dental Research since 1976 and Assistant Surgeon General in the U.S. Public Health Service, retired Dec. 31 after 27 years of service in NIDR ... On Jan. 17, 1982, the windchill factor was -44 °F, which was the coldest day in 50 years and it occurred in the middle of the worst snow to hit the area in years. On Mar. 2, 1982, Dr. James B. Wyngaarden, chairman of the department of medicine, Duke University, was nominated by President Reagan to be new NIH director.

Norman Gettings, who was in the Division of Research Services, identified the painter in last issue's photograph as Edward Emory, who was foreman of the paint shop. He remembers that Emory painted the flagpole three times. Above is another photo about which National Library of Medicine prints and photograph curator Lucinda Keister needs information. It is a photo of an NCI laboratory taken in 1944 by Roy Perry. Does anyone remember the names of all the people in the photo? Please send information to *Update*.

BALLOT

NATIONAL INSTITUTES OF HEALTH ALUMNI ASSOCIATION

PLEASE TEAR OUT AND RETURN WITH YOUR VOTE

In accordance with the bylaws of the NIHAA, alumni members of the association are to elect one-third of the board of the association. The nominating committee, appointed by President Joe Held, has nominated the alumni members listed below, each of whom has agreed to serve on the board of directors if elected. Each alumni member may vote for nine (9) of the nominees. Please note that associate members (current NIH employees) are not eligible to vote in this election.

NOMINEES FOR THE NIHAA BOARD OF DIRECTORS

Please vote for up to 9 (nine) of the nominees and return your ballot to the NIHAA office, 9101 Old Georgetown Rd., Bethesda, MD 20814 by April 15, 1992.

- ☐ **Dr. William R. Carroll** —Scientist, Director, Laboratory of Physical Biochemistry, NIAMD, now retired.
- ☐ **Dr. Peter Condliffe**—Chief of Scholars-in Residence Branch, Fogarty International Center, now Scientist Emeritus, Laboratory of Cellular and Developmental Biology, NIDDK.
- ☐ **Dr. Marguerite W. Coomes**—Staff fellow, Laboratory of Pharmacology, NIEHS, now professor of biochemistry and molecular biology, Howard University College of Medicine.
- ☐ **Dr. Gio Gori**—Deputy Director, Division of Cancer Cause & Prevention, NCI, now Director of Health Policy Center.
- ☐ **Mr. Joseph Keyes, Jr.**—Legislative Analyst, Office of Program Planning and Evaluation, OD, NIH, now vice president for institutional planning and development & general counsel, American Association of Medical Colleges.
- ☐ **Ms. Marjorie Melton**—Parasitologist, Laboratory of Parasitic Diseases, NIAID, now retired.
- ☐ **Dr. Paul Parkman**—Deputy Director, Division of Virology, DBS; Director, Center for Biologics Evaluation & Research, FDA, now a consultant.
- ☐ **Dr. Joseph Perpich**—Associate Director for Program Planning & Evaluation, OD, NIH, now vice president, grants & special programs, Howard Hughes Medical Institute.
- ☐ **Dr. Paul Peterson**—Associate Director, NIAID, now retired.
- ☐ **Dr. Milton Puziss**—Chief, Bacteriology & Virology Branch, Extramural Programs, NIAID, now retired.
- ☐ **Dr. Marvin Schneiderman**—Associate Director for Science Policy, NCI, now on the staff of the National Research Council, National Academy of Sciences.
- ☐ **Dr. Emma Shelton**—Research Biologist, Laboratory of Biochemistry, NCI, now retired.
- ☐ **Ms. Susanne Stoiber**—Senior advisor to the deputy director for science and executive officer of the Clinical Center, now director of social and economic studies, Commission on Behavioral Science and Education, National Academy of Sciences.
- ☐ **Dr. John Utz**—Chief, Infectious Disease Service, NIAID, now professor of medicine, Georgetown U. (formerly dean of the School of Medicine).
- ☐ **Mr. Storm Whaley**—Associate Director for Communications, OD, NIH, now retired (see story in next *Update*).