NIH Grantees Win Nobel Prizes

By Carla Garnett

Four NIH grantees recently became 1989 Nobel laureates for their discoveries in medicine and chemistry following announcements by the Nobel Assembly of Sweden's Karolinska Institute.

Dr. J. Michael Bishop and Harold E. Varmus, both of the University of California at San Francisco, captured the Nobel Prize in Physiology or Medicine; Drs. Sidney Altman of Yale University and Thomas R. Cech of the University of Colorado at Boulder won the Nobel Prize in Chemistry.

Bishop and Varmus, both of whom worked at NIH in the 1960's, will share a $469,000 cash prize for their 1976 discovery that normal growth-regulating genes present in all animals are changed (by tobacco smoke, toxic waste, radiation or other causes) into cancer-causing genes—oncogenes, which transform healthy cells into cancer cells.

Bishop, recipient of almost $13 million worth of NIH grants since 1971, is currently working on "Retroviruses and Cancer Genes," a project supported since 1987 by an NCI Outstanding Investigator Grant (OIG).

OIGs are 7-year, competitive, peer-reviewed grants that support researchers who have had an outstanding record of accomplishment in cancer investigation for at least 5 years. A renewable grant offered since 1985, the OIG frees applicants from providing the normally detailed description of their research plans on the basis of the applicants' proven research successes.

Varmus, a former intramural researcher with NCI as well as NIDDK, has received more than $5.9 million of NIH support—from NCI and NIAID—since 1972; he was awarded one of the first 23 OIGs in 1985.

Minorities Hit Hardest

AIDS in Children—A Growing Problem in U.S.

By Rich McManus

Seen largely as an adult crisis to date, AIDS is emerging as a serious problem among infants and children in this country as the incidence of the disease is "increasing significantly" in that population, according to Dr. Philip Pizzo, chief of NCI's Pediatric Branch.

Giving a Medicine for the Layman lecture on "AIDS in Mothers, Infants and Kids: A Growing Problem," Pizzo said some 2,000 cases of AIDS in children age 13 or below have been documented so far—about 2 percent of the total of diagnosed cases—and that the number is rising.

"An estimated 10,000 to 20,000 cases in the United States alone in this age group are predicted in coming years," he said. Of the five major causes of pediatric death in the U.S. for children age 4 and younger, all remain stable except AIDS, which is rising steadily.

The cases tend to concentrate among the minority populations of urban centers—"children already afflicted by many of the ills of society"—on the east and west coasts, and to be transmitted most often—about 80 percent of the time—from mother to child, usually as a result of the mother's or father's drug abuse. Seventy to 80 percent of the cases occur in black and Hispanic children, Pizzo reported.

More than half the mothers who give birth to HIV infected children are themselves abusers of intravenous drugs; another 20 percent are sexual partners of IV drug abusers. "In New York City, Newark and Miami, 3-4 percent of randomly selected newborns are seropositive for AIDS," Pizzo reported.

"That's a rather astounding figure."

Though cases of AIDS in children tend to cluster around the coasts and to involve high frequency IV drug use, Pizzo warned that, "It is imperative that we recognize that pediatric AIDS is a problem in cities throughout the country." He also said that, while the rate of perinatal (mother to child) AIDS transmission is increasing, the number of transfusion and hemophilia-associated AIDS cases, while certainly a problem now, will decrease in the future with the present safety of our blood supply.

Most women who give birth to HIV-positive infants are themselves asymptomatic when giving birth.

New Conceptions

Child Health Day Highlights Prenatal Care

By Michaela Richardson and Anne Blank

An overflow audience crowded the Great Hall of the Hubert H. Humphrey Building on Oct. 2 to commemorate Child Health Day. This year's celebration was arranged by several federal and private agencies, led by the National Institute of Child Health and Human Development.

There were two highlights of the program: the presentation of a new PHS report that calls for a restructuring of the delivery of prenatal care services, and the convening of a symposium on issues relating to access to prenatal care.

The report, Caring for Our Future: The Content of Prenatal Care, recommends more emphasis on both preconception counseling and delivery of care to women at medical or psychosocial risk of pregnancy complications.

Dr. Mortimer Rosen, head of the department of obstetrics and gynecology at Columbia Presbyterian Medical Center in New York City and chair of the PHS panel, says that in this report, "Many new concepts are suggested as part of prenatal care."

"These concepts include the acceptance of preconception care as a normal part of women's health care, the alteration in the number of visits for a healthy woman's visit schedule, and the change from the current medical model to an enhanced medical and psychosocial prenatal care program for the mother, her unborn infant, and her family with objectives extending through the first year of infant life."

The report represents the first time any group has taken a detailed look at the specific content of prenatal care. The findings and recommendations of this panel have profound implications for prenatal care providers, public policy and the development of a research agenda.

In the afternoon, a symposium, 'First Step to the Future: Prenatal Care for All,' featured speakers from a variety of health-care specialties who addressed financial and physical barriers to providing prenatal care.

The first of four panels focused on financial difficulties experienced by low-income women in need of prenatal care.

Representing the Children's Defense Fund, Kay Johnson said that a major impediment to adequate care is the increasing number of
NOBEL

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Altman and Cech will share the chemistry prize for their discovery made in the late 1970's and early 1980's that the genetic material RNA is not passive as once thought by molecular biologists but is active in chemical reactions.

Altman, who uncovered the enzyme-like activities of RNA in 1978, was awarded more than $834,000 by NIGMS from 1972 to 1981 for his project, "tRNA: Studies of Precursors, Mutants and Function."

Cech, who found in 1981 that RNA actually edits itself by performing cutting and splicing activities during protein production, has received more than $2.2 million in grants from NIGMS. Most recently, he was awarded approximately $300,000 to continue work on splicing activities during protein production, "Mutants and Function."

Montgomery County recently honored NCI's efforts to promote more efficient transportation in the region. The county presented NCI an award in its "newly developed transportation programs" category, recognizing the institute for encouraging Executive Plaza employees to use alternative modes of transportation.

Donald Christoferson, deputy director of the NCI Office of Administrative Management, accepted the plaque on behalf of NCI. Cindy Rooney, administrative officer, NCI Division of Cancer Prevention and Control, received a separate award for her efforts.

"I am very pleased that the efforts of the NCI staff were recognized," said Christoferson, "especially those of Cindy Rooney who has been working directly with the employees."

NCI actively involves itself in Montgomery County's commuting issues. In an effort to reduce traffic congestion, the institute promotes carpooling, van pooling and mass transit. Transportation Information Days, sponsored by the Montrose and Executive Commuter Service Center, are regularly held at NCI. To encourage NIH employees to use the subway system, NCI rerouted the NIH shuttle to include a stop at the White Flint Metro station.

NIH has also been working with the county to install a traffic light in front of the Executive Plaza complex to ensure safe entry for cars into the buildings' parking lots.

The Montrose and Executive Commuter Service Center, with which NCI has been working closely, nominated NCI to receive the award. Eleven other organizations received similar honors.

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Dr. Sidney Altman

Dr. Joseph F. Fraumeni Jr., associate director of NCI's Division of Cancer Etiology, will receive the Gorgias Medal at the annual meeting of the Association of Military Surgeons of the United States next month in San Antonio. A captain in the PHS, he is being honored for distinguished work in preventive medicine.

NIEHS To Sponsor Conference On Global Atmospheric Change

In 11 years, the 21st century will arrive and the effects on human health of such factors as the greenhouse effect, stratospheric ozone depletion and acid rain may be confirmed. How these highly complex geophysical phenomena might have the potential for changing the quality of life everywhere will be the subject of a "Conference on Global Atmospheric Change and Human Health," sponsored by NIEHS Nov. 6-7 in its conference center, 111 Alexander Dr., Research Triangle Park, N.C.

NIEHS has assembled a cadre of prominent scientists who will focus on some of the global change issues for which the potential for effects on human health is already evident or can be anticipated in the not-too-distant future. Within the range of primary and secondary effects of global change that could impact human health are: heat and radiation-induced stress; changes in air and water toxins; the occurrence or distribution of infectious and parasitic diseases; and food and energy production and use.

The conference is open to the public at no charge, but advance reservations are suggested; call Martha Taylor, (919) 541-1817.
NIA Program Entices Minorities Into Science Careers

By Jan Ehrman

For years, minorities have been underrepresented in the health sciences professions. But Alicia Plummer and Marlo Price, two Baltimore teenagers who spent the past summer working at the National Institute on Aging's Gerontology Research Center (GRC), are involved in a unique program designed to change that.

Plummer, Price and more than 100 other Dunbar High School students are participating in the Johns Hopkins/Dunbar High School health professions program, a curriculum that prepares minority high school students for eventually, professions in the health sciences.

For 6 weeks she worked in GRC's Longitudinal Studies Branch, where investigators probe the bodies and minds of about 1,000 healthy men and women in a long-term study of aging.

Says 16-year-old Price, "From working at NIH, I've learned that your work must be accurate—also, that you must be dependable and hardworking. It's important to realize that others are counting on you."

"I'm impressed with the potential this program has for fulfilling the needs of the students and the scientific community in general. There's a great deal we can all gain here," said Dr. George Martin, NIA scientific coordinator for this unique undertaking.

Price and her (1990) senior class will be the first to graduate under the program. According to coordinator Hayman, some 300 students will have enrolled in the program by the end of 1990, and at least 10 to 15 percent of the class will be admitted to graduate programs in a health professions field by 1994.

"It (the program) certainly opens up many doors and opportunities that we wouldn't be able to get from any other type of program," said Plummer, who may study veterinary medicine after high school.

"I recommend it highly for the serious student, not one who wants to sit in class and fool around," commented Price, who plans to enter college next year with a major in biological sciences.

For more information on the Hopkins/Dunbar program, contact Lorrayne Jackson, NIA EEO manager, 496-3046.

Gary Felsenfeld

Gary Felsenfeld To Give Mider Lecture

Dr. Gary Felsenfeld of NIDDK's Laboratory of Molecular Biology will deliver the 1989 G. Burroughs Mider Lecture on Nov. 15 at 3 p.m. in Masur Auditorium. "Switching Globin Genes On and Off: Chromatin Structure and Gene Expression" is the title of his presentation.

A researcher in NIDDK since 1961, Felsenfeld has long been interested in how DNA is packaged in the nucleus of a cell and the role this plays in the regulation of genes. In recent years he has been studying the family chicken globin genes as a model system.

Felsenfeld received his bachelor's degree in biomedical sciences from Harvard and his doctoral degree in physical chemistry from the California Institute of Technology. Prior to joining NIH, he was a postdoctoral fellow at Oxford University, and he held a faculty appointment in biophysics at the University of Pittsburgh. Among the honors Felsenfeld has received is the Distinguished Presidential Rank Award in 1988.—Kathy Kranzfelder

Hugo, Quake Relief Benefit

The recent disasters in Charleston and San Francisco have totally depleted the funds of the Red Cross. To help raise money to assist the victims, the Guest Quarters Suite Hotel in Bethesda is hosting a benefit for the American Red Cross on Thursday, Nov. 2, from 5:30 to 8 p.m.

The event will feature a full buffet, hors d'oeuvres, open bar, entertainment and door prizes. Free parking will be available in the Air Rights garage. A minimum donation of $15 per person will be collected at the door.

If unable to attend, send your donation payable to American Red Cross, c/o Guest Quarters Hotel, 7335 Wisconsin Ave., Bethesda, MD 20814. All proceeds will go directly to the Disaster Relief Fund of the Red Cross.
CHILD HEALTH

(Continued from Page 1)

uninsured women and children in this country. Prenatal care hinges on women’s ability to pay for it, yet Medicaid reaches only 50 percent of those in need of aid, she said, calling for a national “floor” of health protection under Medicaid for all low-income, uninsured women.

Richard E. Curtis of the Health Insurance Association of America also criticized the growing number of uninsured women as a major barrier to prenatal care, noting that 35 percent of poor women ages 15-44 are uninsured and 9.7 percent of women in this age group who are above the poverty level lack insurance.

Dr. Donald W. Schiff, president of the American Academy of Pediatrics, suggested a three-part approach to eliminating financial barriers. His plan included a national legislative proposal being developed by the academy that would provide all women and children through age 21 with health care in addition to more community-based health education programs.

Likewise, the Health Care Financing Administration together with the states is currently working on a proposal—a health-care initiative to prevent infant mortality.

In addition to substantial financial barriers, a number of physical and emotional barriers restrict access to adequate prenatal care. These include fear, impersonal care providers and unreasonable waiting periods between the time a woman makes a medical appointment to the time she is actually seen by the provider.

While it is difficult to quantify statistics on nonfinancial barriers, personal anecdotes graphically illustrate the extent of the problem, said Sarah S. Brown of the Institute of Medicine, who identified four major barriers: poor coordination among aid programs; inadequate followup to positive pregnancy tests; “classic access barriers,” which included lack of transportation to prenatal care clinics, lack of child care facilities, impersonal attitude and practices of providers; and finally, knowledge and attitudes of women in need of care.

A number of methods are readily available to help reduce or eliminate these barriers, said Brown, citing also the following essential components of a good prenatal care clinic:

- easily accessible telephone listings for services
- organized and efficient phone system in the clinic
- good advertising of hours of operation and other information pertaining to the clinic
- 2 weeks or less between the time a woman calls for an appointment and the time she sees the provider

The number of prenatal care recipients on care providers. He said that care providers must become more active advocates for underserved women, and that state Medicaid officials as well as advisory panels can help to solve the problem of inadequate care.

Joyce Thompson, president of the American College of Nurse Midwives and professor at the University of Pennsylvania School of Nursing, summed up the day’s events: “What I’ve heard throughout the day is that we have a common goal and that’s health—healthy women, healthy babies, healthy families.”

NCI Offers Academic Course

The Division of Cancer Prevention and Control, NCI, is currently accepting registration for the “Cancer Prevention and Control” module of the academic course. It will be held Nov. 16 to Dec. 19 in Executive Plaza South, Conf. Rm. T-41 from 8:30 a.m. to 12:30 p.m.

The module is divided into four subject areas: primary prevention—diet (Nov. 16-22); surveillance and special populations (Nov. 27-Dec. 4); early detection (Dec. 4-12); and health promotion and community intervention (Dec. 13-19).

To obtain a registration form, contact Barbara Redding, Executive Plaza South, Rm. T-41, 496-8640 or 8641.
This year, the Society for Neuroscience has chosen a scientist from NICHD, Dr. Mark Mayer, to receive its prestigious Young Investigator Award, an honor that is bestowed annually on a young scientist who has made outstanding contributions to the neurosciences. It was presented to him today at the society’s annual meeting in Phoenix by its president, Nobel laureate David Hubel. The $5,000 award is being made in recognition of what Hubel calls “his truly important work on NMDA receptors.”

During the past few years, research on the NMDA receptors of the central nervous system has shown that they probably hold the key to how the brain is damaged when it is deprived of oxygen, as for example during a stroke or heart attack. These receptors also seem to be critical for memory formation.

The NMDA receptor, so-called because, in the laboratory, it binds a synthetic amino acid with those initials, is located on the surface of certain nerve cells that are activated by naturally occurring “excitatory” amino acids, the most effective of which is glutamate. When glutamate binds to the receptor, the nerve cell produces an electrical impulse, which is then conducted through the cell. Nerve cells produce electrical impulses by altering the balance of ions inside and outside the cell (usually sodium and potassium). This they do by opening submicroscopic pores in the cell membrane, which are called ion channels and which allow ions to pass.

When Mayer entered the field of excitatory amino acid research as a young British postdoctoral fellow working in Philip Nelson’s laboratory at NICHD, there was much confusion about what kind of ion channels are opened by the action of glutamate. He and his colleague, Gary Westbrook, did a series of seminal experiments that greatly reduced this confusion. They found that subtypes of the glutamate receptor are coupled to different types of ion channel. They showed that, in addition to the type that was associated with sodium/potassium channels, the subtype that selectively binds NMDA is coupled with a channel that was blocked by magnesium.

Magnesium only has this effect when the cell is in its resting state; when the nerve cell is excited electrically, magnesium no longer blocks the channel. They were then able to demonstrate that unblocking the channel allows glutamate to bind to the receptor, whereupon another ion, calcium, can move through the channel.

It is now widely accepted that calcium influx is one of the principal ways cells are galvanized into action, not only in the central nervous system, but also for example when stimulated by a hormone. Discovering that the NMDA receptor is coupled to calcium influx has established Mayer’s reputation as a leader in the field of excitatory amino acid research.

The relationship of the NMDA receptor to calcium is the reason NMDA receptors are now thought to be implicated in the damage that occurs during anoxia. When there is not enough oxygen around, the cells that secrete glutamate can’t hold it in efficiently; they become leaky. Consequently, too much glutamate is released and the NMDA receptor is bombarded with it. This in turn increases the amount of calcium entering the nerve cell. As calcium floods in, proteolytic enzymes, enzymes that chew up proteins, are unleashed in destructive amounts, causing nerve cells to suffer permanent damage or death.

Calcium is also thought to make glutamate-sensitive nerve cells more responsive to other incoming stimuli over long periods of time—so-called long-term potentiation. This is a lasting change that occurs in certain synapses after they are subjected to repetitive electrical impulses. Synapses that show this response are found in the hippocampus, a part of the brain known to be critical to memory. Furthermore, because the hippocampus has a high concentration of glutamate-sensitive cells, and because selective blocking of NMDA receptors knocks out long-term potentiation, researchers think it likely that NMDA receptors are involved in memory function.

In the last 3 years, Mayer and his colleagues have extended their research to other properties of the NMDA receptor. About 3 years ago it was discovered that without another simple amino acid, glycine, the response of the NMDA receptor to glutamate is vastly diminished. Mayer established that glycine maintains the sensitivity of cells to glutamate by keeping the calcium channel open; without glycine the response to glutamate tapers off. He has also discovered that the NMDA receptor is blocked by zinc, but, in contrast to magnesium, the block is not relieved by exciting the cell. He has proposed that zinc binds at yet another site on the receptor.

The award adds to the list of honors already accorded Mayer. He graduated with first class honors in England and published his first paper while still an undergraduate. His 3 years as a graduate student at the University of London yielded eight more papers, several of which he published as sole author. Upon gaining his doctorate, Mayer won a Harkness fellowship, of comparable distinction to a Rhodes scholarship. While on this fellowship, he made his first visit to NICHD. He was then awarded a Beir Memorial fellowship, which took him back to work in England with the eminent J.S. Kelly, who said of him, “To hold fellowships as prestigious as the Harkness and Beir Memorial one after another is a rare and unusual distinction.”

It was while he was at NICHD on a study visit awarded by the Royal Society in 1983 that he started the groundbreaking work on the NMDA receptor. He rejoined the Laboratory of Developmental Neurobiology in 1984, where he has remained ever since.

Dr. Helen R. Sunshine has been appointed chief of the Office of Review Activities, NIGMS. Holder of a Ph.D. in bioinorganic chemistry from Columbia University, she had most recently been chief of the biophysics section and a program administrator in the NIGMS Biophysics and Physiological Sciences Program. Prior to that, she was deputy chief of the Office of Review Activities. Sunshine worked as a senior staff fellow in NIDDK before joining NIGMS.
AIDS KIDS

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they give birth, Pizzo noted.

About 80 percent of the women who have HIV are in their prime child-bearing years. Yet a child born to an HIV-positive mother has only one-in-three chance of being seropositive for AIDS.

Unknown as yet are how and when HIV is passed to a fetus or newborn. It has been proven that the AIDS virus can pass through a mother's breast milk during the postpartum period. But AIDS has also been found in the blood of aborted fetuses as young as 13 weeks, in trophoblastic cells from a mother's placenta, and in a baby's cord blood.

It is possible that the HIV virus may also be transmitted during the intrapartum period, or during birth. Two mechanisms of this type of transmission have been postulated: that blood contamination from mother to child occurs during either vaginal or cesarean delivery, or that inoculation occurs during cord separation.

Discovering when and how the virus is passed on may permit physicians to employ "interceptive" treatments, Pizzo said.

Once the virus is passed on, it may be years before symptoms develop. The AIDS virus can lay dormant in the body for 5-6 years or more, according to Pizzo. "This is of particular concern when one considers the increase in the incidence of AIDS for young adults in their twenties. Indeed, many of these young adults may have acquired their infection during their adolescent years. Thus, focusing attention on the adolescent population is of utmost importance lest this problem get worse."

Owing to a variety of factors, the number of pediatric AIDS cases is almost certainly underreported, he added. Another problem is the difficulty of establishing a diagnosis in an infant, whose immune system is still "contaminated" with antibodies acquired from the mother. A new technique called PCR—polymerase chain reaction—may permit physicians to detect small virus burdens in newborns age 15 months and younger, when conventional screens may miss HIV.

"Certain disease manifestations such as lymphocytic interstitial pneumonia, which occurs almost exclusively in children, are much more common in the pediatric AIDS population (occurring in 30-50 percent of cases) compared to adults.

"Conversely, some of the opportunistic infections which are problematic in adults (e.g., toxoplasmosis, cryptococcal infections) are relatively rare in children," Pizzo said.

Unlike AIDS in adults, where the disease state is closely correlated with T-cell counts, this association can be less well defined in children, especially infants.

For example, a child with AIDS may have a high number of T-cells, but still develop symptoms of AIDS. Abnormalities in B-cells can signal AIDS in kids.

Children with AIDS also tend to have a shorter incubation period than do adults; if HIV is passed on at birth, symptoms can appear by the time the child reaches 9 months. But it can occur much later, too.

"We need to know what factors regulate the rate of expression of this infection," Pizzo said.

Most pediatric AIDS patients present with wasting, fever, dermatitis, thrush (a mouth infection) and failure to grow normally.

"Recurrent bacterial infections are characteristic of this disease in kids," Pizzo said. "But what is perhaps most devastating to the child and parents are neurodevelopmental disorders, which occur in 40-50 percent of those infected."

The degree of brain impairment correlates with age of onset, but commonly includes impaired cognitive ability, dramatic falls in IQ scores, loss of brain volume and also brain calcification.

Unfortunately, no curative therapies yet exist for AIDS in kids or adults. "But there are a few beacons of light," Pizzo reported. Many NIH scientists are involved in the effort to interfere with the virus' life cycle. The drugs AZT, DDI and DDC are being employed both alone and in combination to thwart AIDS virus replication.

In a study that began 3 years ago with 21 pediatric AIDS patients, Pizzo and colleagues found that AZT had a beneficial effect on all patients in the study. Most encouraging was a significant increase in IQ levels—an average of 15 points per child during a 6-month period—during AZT therapy.

In summary, this disease is changing the face of pediatrics, from those yet unborn to adolescents of childbearing age," Pizzo concluded.

Medicine for the Layman lectures are sponsored by the Office of Clinical Center Communications. The last lecture in this year's series—"Diagnostic Imaging: Has the Physical Exam Gone High Tech?" by Dr. Martin Begley of the hospital's diagnostic radiology department—will be held at 7 p.m. Oct. 31 in Masur Auditorium, Bldg. 10. □

Vols Needed for Vaccine Test

The Clinical Center department of transfusion medicine is conducting a study to evaluate a new recombinant hepatitis B vaccine. People who have previously received a hepatitis B vaccine (Heptavax-HB and/or Recombivax B) and have not responded by developing antibodies to the virus or have responded poorly are eligible to participate. Participants will receive a series of three injections at 0, 1 and 6 months and will be followed for a period of 12 months. Interested volunteers 20 years and older may call Beverly Elder, 496-8842 for more information. □

People With AIDS Needed

The Clinical Center seeks volunteers who are infected with the human immunodeficiency virus (HIV). Researchers want to determine if certain medications can slow the progression of HIV disease or prevent complications of HIV or AIDS. People infected with HIV who wish to participate in AIDS research studies should call the Clinical Center, 496-7196, or 496-9565. □
Maryann Roper Named NCI’s Deputy Director

Dr. Maryann Roper became deputy director of NCI on Oct. 8 after serving as acting director since October 1987.

She joined NCI in 1985 as a senior investigator in the biologics evaluation section of the Cancer Therapy Evaluation Program. Afterwards, she became special assistant to the director of NCI in October 1986.

Roper is a pediatric oncologist whose major interest is in childhood leukemias. Her research has centered on immunologic markers and their influence on prognosis, and on the use of experimental biologic therapies for the treatment of childhood malignancies. She is currently involved in testing new biologic agents for use in the treatment of pediatric cancers.

Before joining NCI, Roper served on the medical school faculty of Georgetown University in the division of pediatric hematology-oncology. Prior to that, she was at the University of Alabama where she served as assistant professor of medicine and pediatrics and assistant director of the bone marrow transplant unit.

Roper completed a residency in pediatrics at the University of Colorado Medical Center.

Deborah Claman To Head NIA Neuroscience Program

Dr. Deborah L. Claman recently joined the National Institute on Aging as a health scientist administrator for the Neuroscience and Neuropsychology of Aging program. She comes to NIA from the Office of Scientific Affairs at the National Institute of Alcohol Abuse and Alcoholism, where she was an extramural staff fellow, serving as an executive secretary for the neuroscience and behavioral research review group.

Claman received her Ph.D. in neurophysiology from the Massachusetts Institute of Technology. She completed a postdoctoral fellowship at MIT’s Laboratory of Behavioral Neuroscience and a research fellowship at Massachusetts General Hospital. She is a licensed psychologist with a neuropsychology sub-specialty. Before coming to the Public Health Service, she was a faculty member in the neurology department of the University of Wisconsin in Madison.

At NIA, Claman will direct the neuropsychology section of the neuroscience program and stimulate research on brain/behavior relations in the older population. She has a strong background in cognitive neuroscience and clinical experience with Alzheimer’s and Parkinson’s patients. Claman hopes to explore the processes of normal cognitive aging so that impairments can be diagnosed earlier and more accurately, and eventually can be treated or prevented. She seeks to develop new areas of research using human, animal and computational models to explore the neural and psychological mechanisms underlying cognition changes with age and experience. She will also examine the ways sensation, perception, motor and emotional processes interact with cognitive functions.

NIH Day Care: Who Cares?

Employees Air Day Care Needs

The NCI has just interviewed a promising research fellow who is very eager to bring her family to Bethesda. As she investigates care for her 3-year-old, she discovers that the on-campus center has an 18-month waiting list. This causes her to reconsider the offer, which now looks less appealing. This scenario may not be uncommon among the institutes nor new to the Office of Research Services.

What is new is that the core committee for day care has been working for the past few months to assess the complete dependent care needs of NIH employees. The goal of the committee is to design the “model day care” facility for the federal government.

Before a proposal for the center can be written, the exact needs of NIH employees must be determined. A survey has been developed and will be distributed to all NIH employees within the next few weeks. The survey will provide the committee with information concerning present and future day care needs, cost ranges for present care, and optimum hours of operation.

Subcommittees composed of parents and employees will be formed to solve the various problems identified by the survey.

The participation of all employees will make the NIH day care program one that truly reflects “who cares.”

Annual Leave: Use It or Lose It

Annual leave in excess of the maximum car-

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Annual Leave: Use It or Lose It

Annual leave in excess of the maximum carryover balance is normally forfeited if not used by the end of the current leave year. If you have not already planned to take those excess hours of annual leave, you should discuss your leave with your supervisor now while there is still time to schedule it. Your biweekly Earnings and Leave Statement tells you how much annual leave you must use so that you will not lose it when the leave year ends on Saturday, Jan. 13, 1990.

In spite of planning, circumstances sometimes arise that prevent you from taking leave that has been scheduled and approved earlier during the leave year. In such cases, you and your supervisor are jointly responsible for ensuring that any “use or lose” leave is rescheduled in writing before the last three biweekly pay periods of the leave year. This year, your “use or lose” leave must be scheduled in writing not later than Saturday, Dec. 2.

If you or your supervisor have any questions regarding “use or lose” leave, contact your BID personnel office.
NIH PC Users Install Equipment

The DCRT Personal Computing Branch (PCB), together with selected lead users from various institutes, recently assembled and installed 11 PS/2 model 70’s for the NIH User Resource Center’s (URC) training room.

Lead users are those employees from each BID who serve as focal points for PC information, handling questions regarding personal computers, training other staff members and communicating information to the PC user community. The IBM PS/2 models replace the IBM XT’s that have been in use for the past 5 years.

With this new equipment NIH employees can develop skills with DOS, Wordperfect, Lotus 1-2-3 and dBASE on a PC system that is representative of the technology being installed throughout the agency for its current and future needs.

The installation gave lead users the opportunity to walk through the process, from unpacking the various PC components to installing software on their fully assembled machines.

Because they get first hand information and support from PCB, lead users are considered an extension of the branch’s consulting support and are valuable sources of personal computer assistance and information to NIH.

To find out who your lead user is, contact the PCB help desk, 496-2282 (TDD# 402-0179), or dial into PCB’s electronic bulletin board PCBull, 480-8400 (see PCBull story below).

The NIH User Resource Center is available to all NIH personnel and provides education, training and information on the latest in applied personal computing technology. For more information on training and self-study courses, call 496-5025.

PCB Offers New Info Service

“Welcome to PCBull!” That’s the message you’ll see on your screen if you hook a modem up to your computer, fire up your favorite communications package and dial 480-8400. The message indicates that you’ve successfully connected with the DCRT Personal Computing Branch’s new PC-based electronic bulletin board service for NIH employees, known as PCBull.

PCBull has two main types of data: bulletins that can be read on-screen, saved or downloaded and files, called conferences, which can only be downloaded.

In addition to a general area, PCBull has 10 subject areas each with bulletins and conferences that allow users to share current information and send and receive messages on a variety of topics.

The following conferences have been set up: communications, dBASE, DOS-OS/2, PC hardware, Lotus 1-2-3, Apple Macintosh, miscellaneous PC topics, PCBull and PC word processing/desktop publishing.

Perhaps the single most important document on PCBull is PIG, or part 1 of the current PCB product information guide. Because product information is constantly changing, PIG is always partially outdated by the time hardcopy reaches users. By keeping the document online, changes made are immediately available to users across campus.

For further information about PCBull and how to use it, call system operator Dan Zoll, 496-2282.

Supercomputer Begins Service

The new NIH Convex computer system is now available for its first users through the Computer Center Branch, DCRT. Convex is a fast and powerful scientific supercomputer that offers a number of advantages. These include state-of-the-art compiler technology such as the following:

- FORTRAN and C languages
- Automatic vectorization
- Automatic parallelization
- Cray- and VAX-compatible FORTRAN.

The system will also soon provide powerful tools for molecular biologists that include the University of Wisconsin GCG Sequence Analysis Package, EuGene & SAM, GenBank, PIR, and MBCRR programs such as Mase.

Any NIH employee may apply for an account; forms are available from the systems staff, Bldg. 12A, Rm. 2N207 or by calling 496-4823. There is currently no charge for Convex service.

An introductory seminar on the new system will be presented on Nov. 9 from 9 to 11:30 a.m. in Lipsett Amphitheater, Bldg. 10. Topics to be discussed include: the basic operating system (UNIX, shell) commands, the vi editor, and transferring files between the DECsystem-10 and the Convex. To reserve a space in the seminar, call 496-2339.

Problem Readers Needed

Healthy men, ages 18-40, with childhood histories of reading problems and continuing reading and spelling problems are needed for paid NIMH studies of brain activity and anatomy. Must be native English speaker. Call Tracy or Derek, 496-9070, or 496-3175.
Started as a Scientist

Bill Matthews Closes Books on Budget Career

After 34 years with NINDS, budget officer William Matthews, Jr., is trading in his calculator for a condo.

Matthews, who has spent 20 years balancing books at NINDS, says he and his wife, Lola, are looking forward to spending time at their oceanfront property in Myrtle Beach, S.C. "I'm going to swim, take it easy, maybe do some fishing." When they are not in Myrtle Beach or at their home in McLean, the Matthews' hope to travel the world. "Nepal, Canada, Australia, Thailand, Europe ... I want to see how the other half lives," says Matthews.

A biologist by training, Matthews spent his first 10 years at NINDS in the intramural research program. There, his work in the new field of brain scanning technology led to training x-ray technologists to operate the complex equipment. In fact, one of his first students later became his wife.

His career moved from the laboratory to the desk in 1965, when the mushrooming extramural program needed an analyst to code disorders to their budgets. "I never even thought about going into administration until then," Matthews recalls.

But 20 years later, including 10 as NINDS budget officer, Matthews says he has enjoyed his "dynamic" work in administration. He has also witnessed spectacular advances in the neurosciences and, over the years, has become "quite an institution," according to one colleague. Although he expects saying goodbye to the traffic on the Cabin John Bridge will be easy, Matthews says he will miss his coworkers who have made the office "enjoyable."—Frances Taylor

Women's Longevity Examined

Why do women outlive men? This topic has earned Dr. Estelle R. Ramey the accolade of American Innovator by Newsweek magazine. Ramey will explore this theme for NIH employees on Monday, Nov. 6, 11:30 a.m. - 12:30 p.m. in Lipsett Amphitheater, Bldg. 10.

Now active on the lecture circuit and television programs, this lively endocrinologist says, "The poor guys don't have a chance!" She points out that females in all species outlive males. The basis of this selective longevity lies in the protective effects of estrogen that women enjoy from the time of puberty.

Ramey is professor emeritus of physiology and biophysics at Georgetown Medical School. She conducted a major research program there in reproductive endocrinology. She was active on NIH study sections and a member of the advisory board to the director of the National Institutes of Health. Ramey is still highly active as a national speaker on women's health and career issues. Her talk here is sponsored by the advisory committee for women, Federal Women's Program, Division of Equal Opportunity.—Julia Freeman

Arnold Brossi To Receive Alfred Burger Award

Dr. Arnold Brossi, deputy director of NIDDK's Laboratory of Analytical Chemistry, will receive the 1990 Alfred Burger Award from the American Chemical Society (ACS). The award is sponsored by the pharmaceutical company SmithKline Beckman Corp. and is the highest honor in medicinal chemistry given by the ACS.

This award recognizes Brossi's many scientific contributions during his 36-year career.

Geoffrey Grant, NIH grants policy officer and acting executive officer for NIDCD, recently received the Hartford-Nicholsen Award from the Society of Research Administrators (SRA). "His willingness to experiment with innovative ideas has helped to standardize and streamline the research administration function, while improving research productivity," said the society. The award recognizes an SRA member whose services benefited the entire society.

Singled out for praise was Brossi's innovation, his direction of a large and complex pharmaceutical company, and his organization of international research projects using the resources of industry, government and academia.

Brossi has contributed greatly to the development of new antimalarial drugs. He now concentrates his research on the synthesis and study of biologically active natural products that may prove useful in treating liver disorders, familial Mediterranean fever and Alzheimer's disease.

Prior to joining NIH in 1976, he was director of chemical research for the pharmaceutical company Hoffmann-La Roche in New Jersey and then in Basel, Switzerland.

A Swiss national, Brossi received his Ph.D. in organic chemistry from the Swiss Federal Institute of Technology in 1952. He also recently received the Hanus medal from the Czechoslovak Chemical Society in Prague.

Brossi will travel to Boston in April to accept the Burger award and speak at the annual meeting of the ACS.—Kathy Kranzfelder
NIDR's Dr. Kenneth Lynn Retires

In 1968, the director of the National Institute of Dental Research at that time, Dr. Seymour Kreshover, was trying to figure out how to obtain better data on grants information. He sought advice from Dr. Martin Cummings, then director of the National Library of Medicine. Cummings suggested he "get someone like Dr. Ken Lynn," a dentist on NLM's staff who was also a librarian.

The "someone like Dr. Ken Lynn" turned out to be Dr. Kenneth Lynn himself. And in 1968, Lynn arrived at NIDR.

"I felt that I was getting a little too far from dentistry at NLM," said Lynn. "The offer to join NIDR was a good opportunity for me."

After 21 years with NIDR and more than 30 years with the PHS Commissioned Corps, Lynn retired recently.

"When you work with the same people for many years, you develop friendships," he said. "I will really miss the people."

Lynn served as chief of the research data and management information section (RDMIS), Office of Planning, Evaluation and Communications, NIDR. He also was the institute's Privacy Act and Freedom of Information Act officer.

RDMIS collects and processes data on every research and training project supported by NIDR. Staff in that section have developed a variety of "user friendly" ways to retrieve and distribute the literally thousands of pieces of information collected. They also provide technical assistance to NIDR employees on computer use.

Recently, Lynn developed two online databases for NIDR: NIDR ONLINE, a menu-driven source of information of special interest to the dental research community, and DENTALPROJ, a database containing information on dental research in progress. The latter was produced in collaboration with NLM. These programs have allowed information to be distributed beyond NIDR to the research community at large.

Lynn's career with the commissioned corps began when he signed up for the sole purpose of participating in the PHS dental internship program.

"I assumed I would return to private practice after that year," he said. "But one thing led to another and I decided to stay. I enjoyed the team spirit atmosphere of working in a hospital environment with other health professionals."

Lynn's first assignment after the internship was at the PHS outpatient clinic in Washington, D.C.—a locale not usually granted a junior officer—as a staff dental officer. For several years following that assignment, he was chief of the commissioned officer's dental clinic at NIH.

A few years later, while participating in a PHS career development program in the Office of the Surgeon General, Lynn asked if NLM would like a dentist on its staff. NLM said yes, and Lynn began working there as liaison between the library and the American Dental Association in the computerized compilation of the Index to Dental Literature. NLM arranged for Lynn to earn his master's degree in library science from the University of Maryland.

He joined NIDR in 1968 as assistant to the associate director for program planning and evaluation. A year later he became the program planning and scientific communications officer. From 1970 to 1973 he served as chief of the Office of Program Studies and Analysis. From 1973 until 1984, he served as dental research data officer.

In 1980 he was named acting chief of the Office of Scientific and Health Reports—the institute's information office. Lynn served in that position for 4 years.

"We went through the jelly bean years," he said, referring to the popularity of jelly beans during the Reagan administration. "We got all sorts of calls and correspondence asking whether or not jelly beans caused cancer," he recalled laughing. "I enjoyed the information office."

Lynn completed his undergraduate work at Ohio State University, where he also earned a D.D.S., graduating cum laude.

He has received a variety of awards, including the PHS Commendation Medal in 1984 and the PHS Meritorious Service Medal this year. He is a member of Omicron Kappa Upsilon (dental honorary), Beta Mu Phi (library honorary) and several professional organizations.

Lynn probably will continue his affiliation with NIDR as a consultant. He and his wife will remain in the area. —Mary Daum

Technology Transfer Briefing

For timely, up-to-date technology transfer information, the NIH/ADAMHA Patent Policy Board training subcommittee has scheduled a briefing for scientists and administrators on Tuesday, Nov. 14. The session will be from 9:30 (registration at 9:15) until 11:30 a.m. in Masur Auditorium, Bldg. 10.

The 2-hour briefing is specifically tailored for the NIH/ADAMHA intramural community and is presented by NIH officials actively involved in the invention development program for NIH and ADAMHA. Participants will receive an updated briefing notebook containing materials related to patent policy, relevant forms, and other information describing the patent and licensing process. Participants' names will be placed on a mailing list to receive future patent information as it is developed by the NIH/ADAMHA Patent Policy Board.

The Federal Technology Transfer Act of 1986 is designed to encourage government scientists to establish cooperative research and development agreements with industry and to share in any royalties that may result. Key topics that will be addressed in this informative briefing include: overview of NIH/ADAMHA technology transfer procedures; patents—domestic and foreign; technology management process (market analysis, licensing, inventor's rules); cooperative research and development agreements (CRADA's); and material transfer agreements (MTA's); and royalties.

Paid Volunteers Needed
To Test Herpes Vaccine

Researchers at NIH are testing a new recombinant glycoprotein vaccine against herpes simplex virus. People who have had a history of fever blisters or cold sores are sought. Participants will receive three vaccinations in the arm, 1 month apart, and will be followed in the clinic for examinations and blood-drawing on several occasions during the course of 1 year. Payment for participation will be approximately $245. Interested, healthy, heterosexual people, ages 18-35, call 496-1836 for more information.

Research Participants Needed

The Laboratory of Neurosciences at the National Institute on Aging is conducting a study of depression in adults over the age of 45 years. The study does not involve drug treatment. Individuals, or family/friends of individuals, who are depressed and want to participate in this study may contact NIA at 496-4754 for more information, Monday through Friday, 9 a.m. to 5 p.m.
THOMAS WOOD, 32-YEAR NCI VETERAN, RETIRES

Thomas A. Wood Jr., administrative supervisor of the NCI cytopathology section since 1982, retired recently after 32 years of service at NCI.

A board-certified cytotechnologist, Wood worked both on laboratory research projects and in patient diagnosis at the Clinical Center. Known as "Woody" to his coworkers, Wood is one of only 9,240 individuals in the United States who have passed the cytology specialty examination given since 1957 by the American Society of Clinical Pathology.

"Woody has been a dedicated member of the staff of the Laboratory of Pathology for 32 years," said his supervisor, Dr. Diane Solomon, chief of the cytopathology section. "His tenure has been a demonstration of how much NICH depends on career employees to fulfill its mission. We will all miss him."

Born in Cordele, Ga., Wood attended Morehouse College in Atlanta from 1950 to 1951. He graduated from Lincoln University in Pennsylvania in 1957 with a B.A. in biology. Soon after, he joined NCI as a histopathology technician. In 1958, he became a biologist in the cyrdagnosis service, Patholo~c Anatomy Branch, which later became the Laboratory of Pathology. He served three 2-year terms on the NCI equal employment opportunity advisory group, including one term as the group's chairman.

Fundamentals of Extramural NIH


This full 2-day course will be held in Bldg. 1, Wilson Hall, starting at 8:30 a.m., with registration at 8 a.m. each day. The course will provide an overview of extramural activities. Individual sessions will cover grants primarily, but also will include contracts and cooperative agreements. The review processes, the scientific and fiscal management of awards and the criteria for the selection of the appropriate award mechanism will also be discussed.

The number of participants will be limited to approximately 50 people. Priority will be given to those who are new (6-9 months) to the extramural side of NIH at all grade levels.

Any questions about this course may be directed to A. Robert Polcari or Roberta Light, 496-1736, or Dr. Paul Velletri, 496-8818.

Male Volunteers Needed

NIH researchers are comparing two formulations of a drug used for fungal infections. Normal, healthy men between 18 and 40 years of age are being recruited. Participants are screened in clinic with examination, blood and urine tests, then if qualified, are admitted to a clinical research unit for 5 or 7 days. Three or four doses of the drug will be given with frequent monitoring and blood/urine sampling. Payment for participation will be $50 for screening and $100/day in the hospital. If interested, call 496-3461 for further information.
President Bush Honors Five NIH’ers With Meritorious Rank Awards

Five NIH employees received Meritorious Presidential Rank Awards presented at a recent Constitution Hall ceremony by President George Bush and Constance Newman, director of the U.S. Office of Personnel Management.

Career Senior Executive Service members whose achievements are exceptional for an extended period may be granted one of two presidential ranks: Distinguished Executive, which includes an award of $20,000, or Meritorious Executive, which includes an award of $10,000.

An executive may earn each award once in any 5-year period; nominations for Presidential Rank Awards are reviewed by a board of prominent community leaders.

Dr. Richard Adamson, director of NCI’s Division of Cancer Etiology, was honored for “outstanding leadership and accomplishments in the area of scientific management both as director of the Division of Cancer Etiology and as a member of the NIH scientific community.”

Dr. Katherine Bick, NIH deputy director for extramural research and training, was honored for “sustained leadership in developing unified NIH-wide extramural policies and procedures and for managerial ability in the implementation of new initiatives for enhancing participation of applicants and institutions in NIH extramural programs.”

Dr. John Daly, chief of NIDDK’s Laboratory of Bioorganic Chemistry, earned recognition for his role “as an international leader whose career has been devoted to the advancement and extension of knowledge in the field of pharmacology and to the discovery of new, often unique, agents for use in the investigation of physiological and pharmacological function in living organisms.”

Dr. Jonas Ellenberg, chief of NINDS’s Biometry and Field Studies Branch, was cited for “significant sustained achievement in the publication of outstanding and highly influential contributions in applications of statistics to public health research and for outstanding scientific management in the development and implementation of major research initiatives.”

Dr. Jay Moskowitz, NIH associate director for program planning and evaluation, was recognized for “outstanding leadership and significant accomplishments in the area of scientific policy as Associate Director for Science Policy and Legislation and as a member of the NIH scientific community.”

President Bush granted a total of 63 Distinguished and 286 Meritorious rank awards for 1989.