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Dr. Robert Huebner Named NIH Scientist Emeritus

Dr. Robert J. Huebner, expert in the Laboratory of Cellular and Molecular Biology, National Cancer Institute, was named NIH Scientist Emeritus Oct. 18 at a day-long tribute celebrating his recent retirement from a 40-year career in public health.

The award, presented by Dr. Vincent T. DeVita, Jr., NCI Director, and NIH Director Dr. James B. Wyngaarden, honors individuals who have distinguished themselves throughout their scientific careers.



Dr. Huebner's work has brought him many awards and honorary degrees during his career, including membership in the National Academy of Sciences, the Rockefeller Award, the USPHS Distinguished Service Medal, the National Medal of Science, the Guido Lenghi Award, the Pasteur Medal, and the Founders Award in Cancer Immunology.

As Scientist Emeritus, Dr. Huebner will contribute his experience and insight to the planning of research with members of NCI's Laboratory of Cellular and Molecular Biology. During the tribute, more than 20 prominent scientists and researchers described Dr. Huebner's accomplishments.

Early in his career, he gained a reputation for his epidemiological studies of infectious diseases, particularly Q fever, a pneumonia-producing disease, and rickettsiapox, a mite-borne disease similar to Rocky Mountain spotted fever.

While at NIAID, Dr. Huebner studied adenoviruses as agents of infectious diseases, and as tumor inducers in animals.

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NICHD Researchers Find Maternal Drinking Causes Severe Oxygen Deficiency in Fetus

Scientists studying the effects of maternal drinking on the fetus have found in experiments with monkeys that alcohol causes severe oxygen deficiency in the fetus. Repeated episodes of oxygen deprivation may result in fetal brain damage, researchers at the National Institute of Child Health and Human Development suggest in the Nov. 12 issue of *Science*.

"We suspect that moderate or heavy drinking by pregnant women may have a similar effect on human fetuses," says Dr. Anil Mukherjee of NICHD's Pregnancy Research Branch. The blood alcohol levels in the pregnant monkeys studied were equivalent to those measured in humans after three to five drinks, he notes.

In a study funded partly by the National Institute on Alcohol Abuse and Alcoholism, Dr. Mukherjee and his coinvestigator, Dr. Gary Hodgen, looked at the effects of alcohol in the mother's bloodstream on the func-

tion of the umbilical cord, which connects the placenta and the fetus.

Through blood vessels in the umbilical cord, oxygen and nutrients are carried from the placenta to the fetus and waste products are carried from the fetus to the placenta.

The scientists injected an alcohol solution into five monkeys who were in their third trimester of pregnancy. For the next 90 minutes, they determined the effects of the alcohol on umbilical cord function and fetal metabolism by means of direct examination through an incision in the uterus and chemical analysis of blood samples.

In each case, all of the blood vessels in the umbilical cord collapsed within 15 minutes after alcohol was administered to the mother. Circulation between the placenta and the fetus gradually recovered during the next hour.

The interruption of umbilical cord function

(See DRINKING, Page 11)

Harvard Organic Chemistry Researcher Receives Two Top 1982 Scientific Awards

Dr. Frank H. Westheimer, nationally known organic chemist at Harvard University, is the recipient of two 1982 prestigious awards recognizing his many years of research in the field of enzyme reactions.

He has been a grantee of the Pharmacological Science Program of the National Institute of General Medical Sciences for 25 years.

A professor of chemistry in the department of chemistry, Dr. Westheimer has been awarded the Welch Foundation Award in Chemistry. He also has received the 1982 Cope Award by the American Chemical Society.

The Welch Foundation Award, created by Houston oil producer Robert A. Welch to recognize outstanding researchers in the field of chemistry, is given at 2 or 3 year intervals. It consists of a \$150,000 honorarium and a gold medal.

The foundation cited Dr. Westheimer for "his significant scientific research advancements that contribute to the betterment of mankind."

The Cope Award, named for Dr. Arthur C. Cope, prominent MIT organic chemis-



Dr. Westheimer was the chairman of the National Academy of Sciences' Committee for the Survey of Chemistry in 1964-65. A national report was produced by the committee entitled, *Chemistry Opportunities and Needs*. It is well known in the scientific community as "The Westheimer Report."

try researcher, is considered by the American Chemical Society to be their top

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The NIH Record

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Training Tips

The following courses, sponsored by the Division of Personnel Management, are given in Bldg. 31.

Office Skills	Course Starts	Deadline
Basic Time and Attendance	12/1	11/27
Basic Time and Attendance	12/20	12/6
Supervisory and Management		
Group Dynamics	12/1	11/23
Effective Supervision	1/17	1/3
Committee Dynamics	1/26	1/10

To learn more about these and other courses, contact the Development and Training Branch, DPM, 496-6371.

HHS Management Intern Applications Being Accepted

The HHS 1983 Management Intern Program is accepting applications through Dec. 6 for positions at the GS-7/9/11 levels.

To be eligible for any of the positions, candidates must be at the GS-7 level, and

- Have a career or career-conditional appointment;

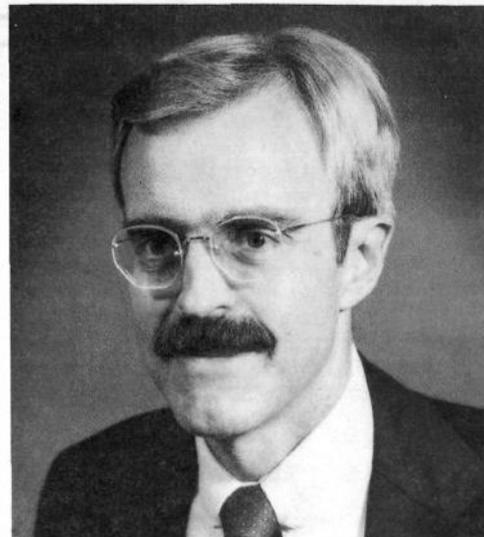
- Have a bachelor's degree from an accredited college or university, and 1 year of responsible administrative, professional or similar experience; or

- Possess any time-equivalent combination of such education and experience.

In addition to meeting the requirements above, an applicant must have a minimum of 1 year experience at the GS-7 level to apply for a GS-9 slot.

Likewise, a GS-9 applicant must have 1 year of experience at that position before applying for a GS-11 slot.

For further information and an application form contact Pat Brady, NIH HHS management intern agency representative, 496-6371. □



Dr. Donald H. Luecke has been named deputy director of the NINCDS Extramural Activities Program. He was formerly deputy director of the NINCDS Stroke and Trauma Program. His new responsibilities include management of the Institute's extramural research training programs and coordination of NINCDS grants and contracts. In previous positions at the NCI, Dr. Luecke administered programs on viral oncology, diet, and nutrition. He also has served as a program administrator for NIGMS.

Dr. Pilla To Speak at Colloquium

A series of colloquia on the biomedical applications of electromagnetism will be held at NIH during 1982-83, beginning with a lecture by Dr. Arthur A. Pilla, director of the Bioelectrochemistry Laboratory of the Mt. Sinai School of Medicine in New York City.

He will speak on Cellular Mechanisms Involved in Biomedical Applications of Pulsed Electromagnetic Fields at 10:15 a.m., Dec. 8, in the Amphitheatre, Rm. 1C114 of the ACRF.

This presentation is sponsored by the Office of Naval Research and hosted by the Musculoskeletal Diseases Program, NIADDK. Each colloquium is free and is open to the public.

For more information, contact Carol Jordan, Science Applications, Inc., McLean, Va. (703) 556-7395. □

Holiday Volunteers Needed By CC Patient Activities Dept.

The Patient Activities Department of the NIH Clinical Center is seeking volunteers willing to purchase and wrap presents for patients who are emotionally and financially in need.

These gifts will meet the needs of certain individuals. The Patient Activities Department will specify what items are needed, such as perfume, plants, or slippers.

The average cost of each gift will be \$10. Anyone interested in volunteering should contact Arnold Sperling, chief of the Patient Activities Department, by noon on Thursday, Dec. 9. The gifts must be delivered by Monday, Dec. 13. For more information, contact him at 496-2276. □

'A Picture Says 1,000 Words,' Maintains AV Branch



The above photo depicting a typical PET scanner process dramatically tells the story at a glance.

There is more than one way to say what you want to say.

When you give a presentation on NIH or about your work, try illustrating your words with pictures. Watching slides during a speech can be similar to looking through a

microscope. Your audience may make discoveries about the subject or understand it better by actually seeing it.

Slides showing NIH, including the grounds, aerial views, buildings, laboratory and diagnostic equipment (along with images they produce), and research activities are available on temporary loan from the Audiovisual Branch, Division of Public Information, OD. Captions and background information accompany each slide.

A new addition to the branch's picture files is a collection of approximately 100 slides taken by Roy Perry, an NIH photographer for many years, who died recently. Through his pictures, he left NIH an excellent record of its development. A narration by Mr. Perry, recorded in 1979, accompanies this presentation.

To borrow slides, or to examine the NIH picture files, contact Dale Blumenthal, 496-5895, Bldg. 31, Rm. 2B37. □



Dr. Betty Pickett, Director, Division of Research Resources, presents a plaque commemorating 20 years of service by the University of Michigan General Clinical Research Center to Dr. Irving Fox, program director. The recent anniversary celebration in Ann Arbor featured an address by former NIH Director Dr. Donald Fredrickson.

Julie White Learns to Cope; Finds Limited Height Does Not Hinder

By Joyce McCarthy

Julie White was 10 years old before she knew that she had serious growth problems. "The other kids at school used to tease me a lot, like calling me midget and bowlegged, but that really helped me to be more aware and discover my problems faster than if I'd been left on my own," she said.

Julie and her parents began to notice that her left leg was beginning to bow, or growing outwardly. Immediately they were in touch with surgeons and endocrinologists at Children's Hospital of Washington, D.C., where she underwent major corrective surgery.

Doctors removed a piece of bone from her right pelvis and attached it to her lower leg bones to aid in stopping them from further curvature.

Julie is now 23 and works in the NIH News Branch, Office of Communications, OD, as a clerk-messenger. She enjoys having her own apartment, sports, painting, other arts and crafts, and spending time with friends.

Her growth impairment has not inhibited her in trying to lead a normal life. Julie is 4 feet, 3 inches tall, a dwarf. She knew at age 11 that she would never grow taller.

Over 80 types of hereditary defects can cause dwarfism. When Julie was born, she weighed 4 pounds, 12 ounces, was 17 inches long with poor color, and doctors placed her in an incubator.

"My parents first noticed something was wrong a year later when I was growing slower than most children of the same age, and I had speech problems. Doctors did a brain scan for mental retardation and found it to be normal. They were baffled," she said.

At the time of surgery, Julie was diag-



Julie has many hobbies and doesn't let short stature impose limits on her activities. Over 100,000 Americans suffer from one of the 80 different causes for this disease.

nosed as having achondroplasia, the most common form of the growth disorder. Three years ago, she was diagnosed by a physician from Johns Hopkins University Moore Clinic of Little People as having dyschondrosteosis, a rare form of the hereditary disease.

Bones Remain Small

In achondroplasia, affected children are normal mentally, but their bones remain small and underdeveloped. Achondroplastic dwarfs differ from hypopituitary dwarfs in that they suffer from a genetic defect in cartilage formation which adversely affects bone growth.

Julie is the oldest in her family with four

sisters of normal height. "My parents were always supportive," she said. "The hardest part was not knowing what was wrong with me. I had the feeling I was the only person in the world with this problem. Then a few years ago, I found Little People of America," she said.

LPA is a national organization formed in 1957 by actor Bill Barty. It is a self-help group, a medical advisory center, a social organization, and a way for parents to meet and talk about their children and their own problems with coping. "Over 100,000 little people belong nationally," she said.

Delmarva Chapter

Julie belongs to the Delmarva Chapter (Delaware, Maryland, and Virginia), which meets once a month at a member's house. This year she spent her vacation at the annual LPA convention in Reno, Nev.

Members attend seminars and workshops on the subject, exchanging ideas about how to make coping easier. "I even won a little money gambling," Julie said enthusiastically.

"I consider myself pretty lucky because most little people have to go through more surgery because their bodies are more disproportionate than mine," she said.

"I can get along pretty well just using a chair or a stool for reaching things. I can also buy ready-made clothes. Many little people have to buy custom-tailored clothes," she added.

Julie now sees a specialist once a year at Johns Hopkins in Baltimore. "People just don't know where to go or write, but I recommend Parents and Children Together, which is a private organization also in Baltimore," she said.

"Coping with the idea of never being taller, not knowing if there's ever going to be a cure, and dealing with people you confront are the hardest problems we have to accept," she said. "I would like people to know that we are no different, really, that we're just like them. We have feelings just like they do," she added.

For more information about the National Little People of America, contact P.O. Box 633, San Bruno, CA 94066; the Delmarva local chapter is: 327 Nottingham Rd., Hagerstown, Md. 21740; and the Johns Hopkins University Moore Clinic of Little People is (301) 955-3122. □



Over 650 members of Little People of America attended the 25th anniversary convention held in Reno, Nev., last summer.

Household Furnishings Needed for Foreign Scientists

The Foreign Scientists Assistance Branch loan service is looking for donations of household furnishings that can be used in the homes of the visiting international scientists to NIH.

The FAES needs everything from cooking utensils and small appliances to desks and beds. All items must be usable and in good condition.

Also needed are volunteers to transport items from NIH to the visitor's residence.

Anyone interested in making a donation (tax deductible) or transporting items, can call 496-7976. □

Clinical Problems and Ethical Issues Discussed During Medicine for Layman

The problems and ethical issues associated with clinical research were discussed in a lecture entitled Research with People: Problems and Ethics as part of the Clinical Center's Medicine for the Layman series on Oct. 12.

Dr. Mortimer B. Lipsett, Director of NICHD and former Clinical Center Director, presented some historical precedents in clinical research and how they have evolved into today's standards.

He was followed by Dr. John C. Fletcher, the CC's assistant for bioethics, who detailed some of the ethical issues in medical human research and how they are resolved.

Several incidents have occurred in medical research that have influenced our present standards, according to Dr. Lipsett.

The yellow fever research conducted by



Dr. Walter Reed was a landmark case. In this study, conducted in the Panama Canal zone during its construction, 16 soldiers were deliberately bitten by mosquitoes and 14 contracted yellow fever.

"Although a study like this would be considered too dangerous to perform today, it was significant because there was informed consent of research subjects," said Dr. Lipsett.

He cited other incidents in which this principle was not involved. They include a study conducted in the 1930's in Tuskegee, Ala., in which black men with syphilis were denied treatment without their knowledge.

Injections Made

Another study conducted in Brooklyn, N.Y., in 1964 received public criticism when critically ill nursing home patients were injected with cancer cells without their knowledge.

Dr. Lipsett cited a number of guidelines that resulted from the abusive human experimentation conducted on concentration camp victims in Nazi Germany.

In addition to the principle of informed and voluntary consent of research subjects, DHHS regulations now embody the guidelines of the Nuremberg code and other such rules.

Among them are only those experiments which are necessary and beneficial may be performed; experiments must have scientific merit; they must avoid all unnecessary suffering and injury; the degree of risk of the experiment must be proportional to the potential benefit; there must be excellent facilities to carry out the research; it must be accomplished by competent investigators; and both the investigator and research subject must be free to end the experiment at any time.

"The central duty in medical ethics is to put the patients' best interest above everything else," said Dr. Fletcher. "When one volunteers for research, he or she is doing something for the good of society. Very careful lines are drawn to limit any tendency to exploit the altruism of the sick or vulnerable person," he explained.

He emphasized three principles of clinical research: (1) autonomy, or the right of the individual as distinct from the group or society as a whole; (2) beneficence, or the duty to do as much good and prevent as much harm as possible; and (3) justice, or the duty to distribute benefits and burdens of research fairly in society.

"Only recently in this country have we made it off limits to do most forms of research with Federal prisoners or patients in urban clinics totally dependent on the institution for their medical care," said Dr. Fletcher.

Guidelines Followed

A number of guidelines are followed to assure that research is ethically sound as well as scientifically meritorious.

To achieve impartiality, research studies are submitted to a scientific peer review board, made up of doctors and scientists, to determine scientific merit. An institutional review board, made up of scientists as well as nonscientists and nongovernment members, also looks at the proposal from an ethical standpoint.

"The IRB determines if the research is meritorious not only scientifically, but in terms of ethical standards and values espoused by the community," said Dr. Fletcher.

"Screening, or determining if an interested subject is a good candidate for research is also a most important moral decision," he continued. He added that informed and voluntary consent is both a moral and practical necessity.

"We know much more now about the ethical and practical problems that need to be resolved and have devised strong impartial methods to deal with them," said Dr. Fletcher. "Our task is to continue this work so that research is in harmony with the values of society," he concluded. □

Considering Surgery?

Most people for whom elective (non-emergency) surgery is recommended are given time to think the matter over and review other options. Deciding whether or not to have an operation is difficult for anyone, but especially for the elderly.

Normal changes that occur with age and diseases which are more common in later life, particularly heart ailments, may make surgery more risky for older people.

The National Institute on Aging has some suggestions to offer to anyone considering surgery in their *Age Page* entitled *Considering Surgery?* For more information write *Age Page*, National Institute on Aging, Bldg. 31, Rm. 5C36, Bethesda, Md. 20205; (301) 496-1752. □

Dr. Samuel Broder Appointed Assoc. Director Of NCI Clinical Program

Dr. Samuel Broder has been appointed associate director of the Clinical Oncology Program in the Division of Cancer Treatment, National Cancer Institute. He will also serve as deputy clinical director for NCI.

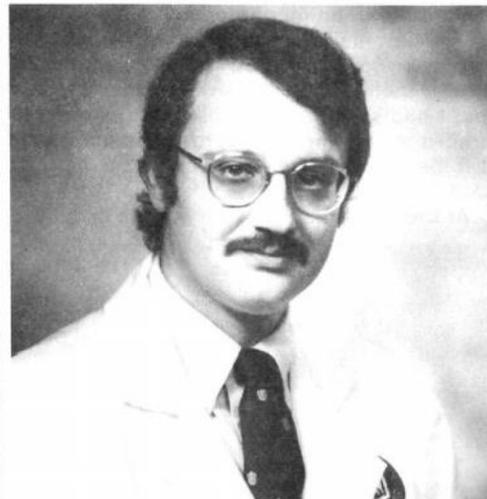
Dr. Broder came to NCI in 1972, first as a clinical associate in the Metabolism Branch. In 1975 he served as an investigator in the Medicine Branch and, in 1976, returned to the Metabolism Branch as a senior investigator. He has been acting associate director of the Clinical Oncology Program since 1981.

Cancer Mechanisms

His continuing interest is in applying immunological developments to the diagnosis and treatment of cancer patients. He has contributed to understanding the mechanisms of cancers such as leukemias and lymphomas that involve human lymphocytes.

He also studied the interrelationships between the immune system, the development of cancer, and immune deficiency states.

Dr. Broder and coworkers provided the first proof that at least two different kinds of T-cells (arising from the thymus) are involved in the generation of certain types of cells that regulate immunity in humans.



Dr. Broder received his B.S. and M.D. degrees from the University of Michigan, Ann Arbor, in 1966 and 1970, respectively, and completed his internship and residency at Stanford University. He is an associate editor for *The Journal of Immunology*, *Hematological Oncology*, and *The Journal of Clinical Immunology*, and is the author or coauthor of over 70 publications.

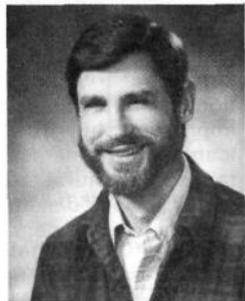
He and colleagues also were first to show that cancerous T-cells in certain lymphomas and leukemias could paradoxically enhance the development of immunity in other cells.

Dr. Broder has been involved in early studies documenting that macrophages (scavenger cells of the immune system that can ingest and destroy foreign substances like bacteria) could participate in the immunosuppressed state associated with cancers such as multiple myeloma. □

Four Key Appointments Are Filled At Child Health and Human Development



Dr. Levine



Dr. Loriaux



Dr. Zasloff



Dr. Dawid

Four key appointments, including the scientific and clinical directorships, have been filled in the intramural program of the National Institute of Child Health and Human Development.

Institute Director, Dr. Mortimer B. Lipsett, recently announced the following appointments: Dr. Arthur S. Levine, scientific director; Dr. Lynn Loriaux, clinical director; Dr. Michael A. Zasloff, chief, Neonatal and Pediatric Medicine Branch; and Dr. Igor B. Dawid, chief, Laboratory of Molecular Genetics.

Scientific Director

Dr. Levine, joins NICHD as scientific director after 15 years in various positions in the National Cancer Institute.

He is a graduate of Columbia College, earning his M.D. at the Chicago Medical School in 1964. He received his training in pediatrics at the University of Minnesota, where he was also a fellow in hematology and biochemical genetics.

Dr. Levine joined the NCI staff as a clinical associate in 1967. He was appointed chief of the NCI's Pediatric Oncology Branch in 1975 and served in that position until earlier this year when he was named assistant director for science in the Division of Cancer Treatment, NCI.

During 1981, he also served as acting associate director for the Clinical Oncology Program. Dr. Levine is widely recognized for his clinical research on the treatment of cancer and its complications.

He is the editor of the recently published volume, *Cancer in the Young*, and has also written extensively on psychosocial aspects of the practice of medicine.

Dr. Levine has an extensive research background in molecular genetics and the biology of the DNA and RNA tumor viruses, including studies on the adenovirus-SV40 hybrids and the murine leukemia viruses.

The author of more than 150 scientific publications, he is a member of the editorial boards of several journals.

Clinical Director

As clinical director, Dr. Loriaux is responsible for the care, treatment and study of NICHD patients. He will continue as chief of the Developmental Endocrinology Branch.

A native of New Mexico, he earned his B.A. degree from Colorado State University and his M.D. and Ph.D. degrees from Baylor College of Medicine.

Dr. Loriaux came to the NIH in 1970 as a clinical associate in the Endocrinology Branch of NCI. In 1972, he joined NICHD's Endocrinology and Reproduction Branch and later headed the Endocrinology Service. He was named chief of the Developmental Endocrinology Branch in 1978.

The author of 140 publications dealing with the endocrinology of growth and development, Dr. Loriaux has been a member of the editorial boards of the *American Journal of Physiology* and the *Journal of Clinical Endocrinology and Metabolism*. In 1980 he received the NIH Director's Award.

Neonatal and Pediatric Medicine Branch

Dr. Zasloff is the new chief of the Neonatal and Pediatric Medicine Branch. He had been a senior investigator in the Genetics and Biochemistry Branch, NIADDK. From 1975 to 1977, he was a research associate in the section on physical chemistry, Laboratory of Molecular Biology.

He received a B.A. from Columbia College in 1967. At New York University School of Medicine he earned both the M.D. and Ph.D. degrees in the NIH-supported medical scientist training program.

Dr. Zasloff completed his internship and residency training in pediatric medicine at the Children's Hospital Medical Center in Boston and was concurrently a fellow in pediatrics at the Harvard Medical School.

While at NIH, he completed a fellowship in medical genetics at the Johns Hopkins University School of Medicine.

Dr. Zasloff's research interests include the broad area of eukaryotic gene expression, currently focusing on the human methionine initiator tRNA genes and the mechanism of hormone action.

His clinical research concentrates on the pathophysiology, natural history, and treatment of human genetic disorders with a special interest in bone conditions and disorders of embryonic development.

Laboratory of Molecular Genetics

Dr. Dawid has been named chief of the Laboratory of Molecular Genetics, replacing Dr. Philip Leder who is now at Harvard University. Dr. Dawid was formerly chief of the developmental biochemistry section, Laboratory of Biochemistry, NCI.

He was among the first scientists to study the biochemistry of development in animals, specifically frogs and fruit flies. Included in his other research interests are the structure

and expression of the eukaryotic genome.

From 1966 to 1978, Dr. Dawid was a biochemist in the department of embryology at the Carnegie Institution of Washington in Baltimore, Md. During that period he also taught part-time in the department of biology at the Johns Hopkins University. From 1960 to 1962, he was a postdoctoral fellow at the Massachusetts Institute of Technology.

From 1964 to 1967, Dr. Dawid was a visiting investigator at the Max-Planck-Institute für Biologie in Tuebingen, Germany. Born in Romania, Dr. Dawid received his Ph.D. in chemistry in 1960 from the University of Vienna.

He served as editor-in-chief of *Developmental Biology* for 5 years and is currently associate editor of *Cell*.

He is also a member of several professional societies and holds the honor of membership in the National Academy of Sciences. □

Historic Building Dedicated For Indian Diabetes Studies

In a joint ceremony in Phoenix, Ariz., on Oct. 22, representatives of NIADDK, the Indian Health Service, and the Gila River Indian Community dedicated the recently renovated historic "Building 1," on the grounds of the Phoenix Indian Medical Health Center.

The building was recently renovated to house NIADDK's Epidemiology and Field Studies Branch, and the medical library of the Phoenix Indian Medical Health Center.

Originally built in 1922, the building served as a tuberculosis sanitarium for Indian women and children. From 1945 to 1970, it was the surgical wing of the Phoenix Indian Hospital.

Since 1963, the NIADDK has been involved in extensive research regarding the high frequency of diabetes and arthritis among the Southwestern American Indians, particularly the Pimas of the Gila River Indian community.

Dr. Lester B. Salans, NIADDK Director, said, "The renovation of this historic building is tangible evidence of a continuing long-term commitment among the Indian people, the NIADDK, and the Indian Health Service toward gaining further understanding of the causes of diabetes and improved treatment of the disease in the Gila River Indian Community."



This recently renovated building at the Phoenix Indian Medical Health Center will house NIADDK's Epidemiology and Field Studies Branch.

Better Nutrition and Early Education Pay Off for Children in South America

A national child nutrition and early education program, now in its sixth year of operation in Colombia, South America, is a direct result of U.S.-sponsored medical research in that country.

The studies, coupling nutritional supplements with behavioral stimulation, were



Children were given a nutritional supplement to drink which researchers say can prevent and treat malnutrition when combined with behavioral stimulation.

initially funded by the Ford Foundation and later continued by the National Institute of Child Health and Human Development.

They were part of a coordinated series of studies designed to clarify the relationship between malnutrition, learning, and behavior, funded by NICHD throughout the Western Hemisphere.

Dr. Merrill S. Read, chief of the NICHD Clinical Nutrition and Early Development Branch, discussed the results of these and other research projects in a state-of-the-art report entitled *Malnutrition and Behavior* in the fall issue of *Applied Research and Mental Retardation*.

In general, Dr. Read said, research from two decades of study around the world has shown that malnutrition and social environmental factors may interact to influence the development of a child's central nervous system and help shape behavior.

The two studies in Colombia were designed to explore the effectiveness of coupling behavioral and nutritional interventions to prevent and treat malnutrition.

One project was designed to teach low-income mothers in Bogota, Colombia, how to use household objects to encourage cognitive development in their infants while, at the same time, the program provided nutritional supplements.

The other study introduced a multifaceted nutrition, health and educational intervention program over a 3-year period. This program focused on 3- to 5-year-old children in a preschool setting in Cali, Colombia.

Results indicate that unsupplemented infants became more irritable during testing sessions and reacted more strongly to adverse stimuli, than did supplemented infants. Both nutritional and behavioral stimulation significantly enhanced performance on standardized tests.

The supplementation had a greater effect on motor functioning while educational

intervention primarily affected linguistic development. Thus, the two interventions appear to influence behavior in different ways.

Double Intervention Best

The greatest changes were in those children receiving both interventions. Even in those cases, however, the results from the double intervention were not equal to the test scores of middle and upper-class Colombian children.

Malnutrition produces extremely stunted growth, water retention, skin sores and hair discoloration. If untreated, the condition can lead to death. Severe malnutrition is not restricted to poverty-stricken homes.

Although ordinarily found in developing countries, it sometimes occurs in the United States in cases of severe parental neglect.

Dr. Read said NICHD-supported research demonstrates that severe malnutrition in animals and humans during the fetal or infancy period, particularly if prolonged, may later alter the structure and function of brain cells.

Compared to severe malnutrition, moderate malnutrition or undernutrition plagues a larger percentage of the world's children. This condition is caused by an inadequate diet where both the quantity and quality of food intake is restricted.

Because of the deficient diet, the child grows at a much slower rate with low resistance to childhood diseases such as measles, diarrhea and pneumonia. Anemia, rickets and goiters can also result from malnutrition.

Environments providing little educational stimulation or emotional support may also impair a child's learning abilities, Dr. Read said.

Usually the better nourished a child is, the better his social interaction with family, peers and teachers. In a well-nourished child, intellectual potential is more likely to be attained because the child is more responsive to the relevant stimuli available in the learning environment. The child interacts better in school and relates to others in a positive manner.

Changes in personality, emotionality and behavior accompanying malnutrition may



These children were both 5 months at the time this photo was taken. The child on the left is severely malnourished, while the one on the right is of the correct weight.

interfere with the interpersonal relationships necessary for learning. The malnourished child tends to be apathetic, disinterested, irritable and disruptive in class.

Research indicates that better dietary management for pregnant women may improve the outcome of pregnancy, particularly in the area of infant birth weight. Nutritionally supplemented infants also show improvement in growth and small, but significant, improvements in performance on mental and behavioral tests, especially social and motor skills and alertness. They are also more active and demanding of parental attention.

The earlier and more prolonged interventions among the children led to higher scholastic achievement by the time a child reached third grade and to fewer school failures compared to children with little or no intervention.

The scientists concluded that "the child attempts to adapt to the physiological stress of nutritional deficit by developing behaviors that remove or isolate him/her from the social and nonsocial environment. These behaviors inhibit the later development of appropriate patterns of social interaction."

Adverse Affects

It is apparent, concluded Dr. Read, that moderate malnutrition in early life, including pregnancy, may adversely affect aspects of cognitive development in infancy, particularly in language development.

These deficits do not appear to be permanent, however, especially when the environment is stimulating. Of greater long-term significance is the impact of malnutrition on physical activity and social behavior.

Investigators will continue to make strides in understanding malnutrition and behavior, Dr. Read said. More data are needed, he added, to help "reorder our maternal, infant and child programs to maximize benefits for the mother and child and to help babies grow to be healthy adults." □

Two Spanish 'Age Pages' Discuss Accidents and Minorities

Accidents seldom "just happen," and many can be prevented, according to the National Institute on Aging *Age Page* entitled *Accidents and the Elderly*.

Accidental injuries become more frequent and serious in later life. Thus, attention to safety is especially important for older persons. Helpful hints on what can be done to cut down on the risk of accidents is available in Spanish and English versions and can be obtained by writing to NIA.

Another *Age Page* in both Spanish and English is entitled *Minorities and How They Grow Old*. Old age—a difficult time for many people—can be especially so for black and members of other racial and ethnic minority groups. Compared to the majority of Americans, these individuals are likely to have less education and money, less adequate housing, poorer health, and fewer years of life.

For more information about these two *Age Pages*, contact NIH, Bldg. 31, Rm. 5C36, Bethesda, Md. 20205; (301) 496-1752. □

Consensus Panel Finds Biomaterials Used Are Safe

Currently used biomaterials have generally been found safe and effective for applications that range from improving bodily contour to sustaining life, according to a draft statement issued by a recent NIH Consensus Development Conference on Clinical Applications of Biomaterials.

Biomaterials—polymers, metals, textiles, ceramics, and other substances and composites—are the basic constituents of thousands of medical devices that come in contact with living tissue.

Improvements in biomaterials, enabling them to mimic normal tissue and organs even better, will bring great benefits to all branches of medicine, the consensus panel agreed.

Benefits are to be expected particularly in the treatment of coronary artery disease, soft tissue contour and functional deformities, urinary incontinence, weakening of the dental alveolar ridge in the elderly, and chronic disease that requires frequent medication.

The conference, held Nov. 1-3 in Masur Auditorium, was sponsored by the Biomedical Engineering and Instrumentation Branch, Division of Research Services, with assistance from the NIH Office for Medical Applications of Research.

Participants included materials scientists, clinicians, biologists, and individuals from industry, government, and consumer and public interest groups.

The draft consensus statement was presented for discussion by panel chairman Dr.

Pierre M. Galletti of Brown University at the final session of the conference. Some highlights of the statement were:

- Although there have been some reports of immune responses to implants, there is no apparent evidence of a carcinogenic response associated with their use. The rare cases of immune response are being addressed through a search for less sensitizing metals.
- All natural tissues are composites; composite biomaterials appear to offer attractive possibilities of flexibility and adaptation to special requirements. Of special promise are polymeric composites for blood-contacting devices and polymer-carbon structural composites for musculoskeletal augmentation.
- Improved biomaterials with specific properties are needed: for example, materials that can be used permanently to cross the skin and mucous membrane without risk of infection, and materials that can be implanted within the cardiovascular system without risk of blood clot formation.
- A better understanding is needed of the dynamic biological changes occurring at the material/tissue interface.
- Development of new biomaterials and of new applications for them is likely to be slowed by increased costs of development and approval, proprietary control of new discoveries, and the growing potential for product liability. □

Urinary Incontinence

Urinary incontinence is the subject of the November 1982 *Age Page* distributed by the National Institute on Aging.

Loss of urine control, or urinary incontinence, is especially common in persons aged 65 or older.

Incontinence can range from the discomfort of slight losses of urine to the disability and shame of severe, frequent wetting.

This condition is not an inevitable result of aging. It may however be brought on by stress, illness, fatigue, use of medications, and from a urinary tract infection.

Persons who are incontinent often withdraw from social life and try to hide the problem from their family, friends, and doctors.

The relatives of an incontinent person often do not know about the choices of treatment and may believe that nursing home care is the only option.

It is important to remember that this condition can be treated and often cured. The principal step in treating incontinence is to see a doctor or a urologist for diagnosis.

Treatment includes the use of medication, bladder retraining, exercise, and surgery to replace or aid the muscles that control urine flow.

Many, if not all, of the treatments can be tailored to the needs of each patient. Even incurable problems can be managed to reduce the complications, anxiety, and family stress.

For a free copy of the *Age Page*, contact the NIA Information Office, Bldg. 31, Rm. 5C35, 496-1752. □

Cornell Professor Is FIC Scholar

Dr. Leon Heppel, professor of biochemistry and molecular biology at Cornell University, has arrived for his first term as a Fogarty International Center scholar-in-residence.

Dr. Heppel previously spent 25 years as a scientist at NIH. He is internationally recognized as an authority on nucleic acid biochemistry and the biochemistry of membrane structure and function.

Dr. Herbert Tabor, NIADDK, will sponsor Dr. Heppel, who will have an office in Stone House (496-1213) where he can be reached until the end of January 1983. □

NIH Chamber Orchestra To Perform

The NIH Chamber Orchestra, sponsored by the R&W Association and the Patient Activities Section, CC, will present a concert on Tuesday, Dec. 7, at 8 p.m., in Masur Auditorium, CC. Under its new conductor, David Crane, the orchestra will perform music by Barber, Fauré, Handel and Haydn.

All members of the NIH community, their families and friends are invited to attend. There is no admission charge, and no tickets are needed. □

Contemporary Music Forum Will Give Concert on Dec. 13

The Contemporary Music Forum will present a concert of original music written by prominent composers residing in the Washington, D.C., area on Dec. 13 at the Masur Auditorium at 8 p.m. Tickets are \$4 at R&W Activities Desk, or \$5 at the door. □

Nurse Josephine Braz Retires From CC Career

"I have always maintained that working in the Clinical Center is a nurse's dream come true," said retiree Josephine Braz.

"But after 27 years, I feel it is time to make room for someone else to bring fresh new concepts to this institution," she said. Ms. Braz was the chief of the Allergy and Infectious Diseases Nursing Service for 7 years.

Before being appointed to that position, she was a head nurse of that service for 13 years. She is one of the few CC nurses who worked for a single nursing service during her career.

"The changes in nursing throughout my career have been dramatic," said Ms. Braz, who earned her bachelor's degree in nursing administration from American Univer-



Ms. Braz's retirement will be filled with travel. She has already planned a trip to Italy and France and another to California and Hawaii (her birthplace). She would also like to tour New England states, an area of the country she has never seen.

sity. "Nurses are becoming more 'thinking' people. They are now collaborating with physicians regarding a patient's health and welfare," she said.

"Years ago nurses were 'doers.' They obeyed orders and went straight to a head nurse with a problem. It would have been unthinkable for them to consult directly with a physician," she added.

Ms. Braz attributes these changes to the advanced education of nurses. When she began her career, it was unusual for a nurse to have her bachelor's degree, whereas many nurses are now completing a master's degree. "This has helped nurses to be recognized as professionals," she said.

"I think my most valuable asset in this position has been staff counseling," she emphasized. She has always supported staff development and has encouraged them, particularly head nurses, to continue their education. "I want them to be as self-sufficient as possible. When I leave here, I expect them to continue on as before with minimal problems. They have proven that they can do this," she added. □

The things most people want to know about are usually none of their business.—*George Bernard Shaw* □

NINCDS Nerve Cell Membrane Studies Yield Pertinent Answers About Drug Effects

"The cell membrane is very important to the cell," said Dr. Jeffery Barker, chief, Laboratory of Neurophysiology, National Institute of Neurological and Communicative Disorders and Stroke. "It is the barrier that keeps ions and other substances in or out."

The cell membrane is also very important to Dr. Barker, who has spent the last 5 years probing the secrets of one particular type of membrane—those cells of the central nervous system, consisting of the spinal cord and brain.

From these investigations, he and other NINCDS scientists are learning what role this membrane barrier plays in regulating the effects of drugs on the nervous system.

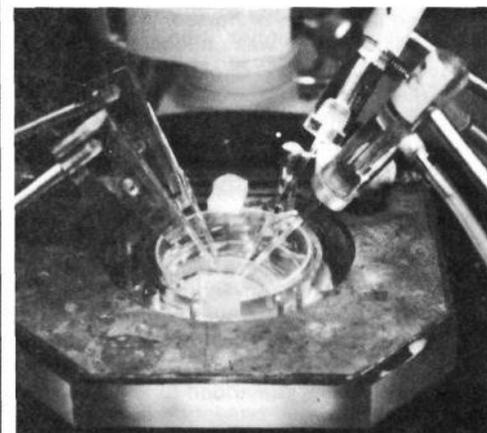
"Excitability" is a key concept to understanding how nerve cells function, according to Dr. Barker. For a long time scientists didn't know why only certain cells were excitable and could transmit messages to other cells.

Investigators studying the nervous systems of simpler, soft-bodied animals, such as squid and snails, found that excitability is created partly by the membrane's ability to regulate the distribution of charged particles, or ions.

Ions bunch up inside or outside the cell and try to redistribute themselves evenly across the membrane. Usually the membrane acts like a barrier, preventing the ions' even distribution. But when exposed to certain chemical or electrical stimuli, nerve cell membranes become "excited" and release ions from the cell or allow them to enter.

The resulting ionic rush creates an impulse, or action potential, that is transmitted along the length of the cell much like electricity traveling through high tension wires. These impulses initiate a chain of events for sending messages to the brain and the rest of the body.

Dr. Barker and his colleagues wanted to find exactly how the chemical signals produced by drugs affect the membrane in man. "If we don't understand that, then we will be left on empirical judgment in using drugs," he said. "Drugs will be given because they work, not because we know how they work."



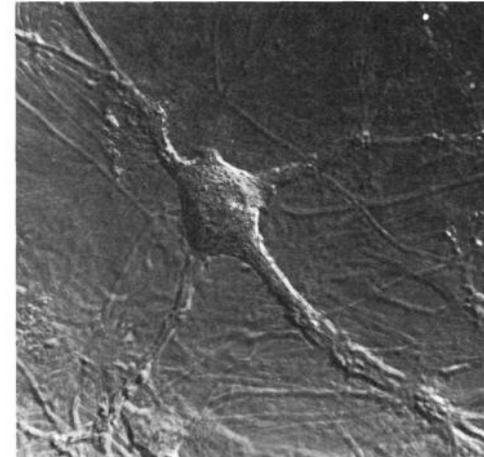
Needlelike microelectrodes inserted into isolated spinal cord cells measure minute changes in the cell's electrical properties.

To examine these mechanisms, Dr. Barker dissects the more complex and inaccessible nervous system of the mouse. His laboratory group studies central nervous system cells isolated from mouse spinal cord and grown in culture.

First, a spinal cord is dissected from a 13-day-old mouse embryo and carefully minced. Then the small pieces are passed through a thin pipette allowing only small clumps of cells to pass at a time, which helps pull the cells apart from one another. The process is repeated until individual nerve cells separate from the minced spinal cord tissue.

A few cells are placed on a small plastic plate coated with a substance conducive for nerve cell growth. Within a few weeks, the surviving cells develop into a single layer of living spinal cord tissue.

Although the monolayers of cells lack the organization of an "intact" nervous system, these cultures react to drugs and other substances just as nerve cells would in the mouse body.



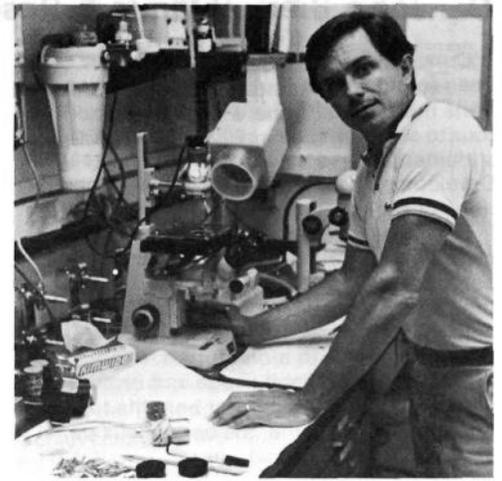
The isolated spinal cord cell when grown in culture is easier to test than nerve cells of intact animals.

Because the cells are in single layers and not buried deep within the body, the scientists can study them in greater detail. "This monolayer allows easy accessibility to many neurological techniques," Dr. Barker said.

Tiny electrodes the size of fine needles can be inserted directly into the isolated cells. These sensitive electrodes monitor small changes in the cell's electrical properties occurring when the membrane becomes excited and ions rush in and out of the cell.

NINCDS neurophysiologists have learned that membranes of cultured central nervous system cells contain a maze of channels regulating which ions pass in or out of cells. When cells are stimulated, channels open up just long enough to let ions through the membrane.

Otherwise, mechanisms that work like gates prevent those charged particles from leaking through membrane channels. This "two-state-channel system" is crucial to maintaining the nerve cells' ability to receive and transmit signals.



Dr. Barker and his coworkers in the NINCDS Laboratory of Neurophysiology study how drugs affect nerve cell membranes.

The scientists are beginning to understand how certain drugs, including anticonvulsants, work at the membrane level. These drugs seem to affect the activity of one of the nervous system's most important chemical messengers, gamma-aminobutyric acid. GABA calms excitable nerve cells. It is one of several messenger chemicals that inhibit the production of impulses generated by nerve cells.

Acting as a kind of gatekeeper, GABA helps dampen the excitability of nerve cells by selectively opening channels that let negatively charged chloride ions enter the cell. By letting more chloride ions in, GABA helps make the cell less likely to give off unwanted impulses that might lead to seizures, or feelings of anxiety.

Valium® (a drug trade name of diazepam), barbiturates, and other substances enhance GABA's ability to open chloride ion channels and keep cells from being too excitable.

Scientists in the NINCDS Laboratory of Neurophysiology have discovered that not all drugs enhance GABA the same way. Dr. Barker and his group have found that drugs like Valium® work by somehow telling GABA to open the channels more frequently. Barbiturates seem to work by keeping the channels open longer. In both cases GABA lets extra ions enter.

NINCDS investigators are examining exactly how these and other drugs interact with GABA's gatekeeping functions. Other NINCDS laboratories continue their probe into the specific nature of the chemical and electrical imbalance that the membrane seems to control. □

Alzheimer's Disease Week

The President has proclaimed National Alzheimer's Disease Week to be held Nov. 21-27 in an effort to raise public awareness about the disease.

The Alzheimer's Disease and Related Disorders Association is looking for members to join their national family-help group. The address is 360 N. Michigan Ave., Chicago, Ill., 60601. The National Institute on Aging also has information; contact Marian Emr, 496-1752. □

Dr. John Bieri, Vitamin E Research Authority, Retires

Dr. John G. Bieri, Scientist Emeritus, former chief of the nutritional biochemistry section, NIADDK, and a leading authority of metabolism of vitamin E, is a recent Institute retiree.

During his 27 years at the Institute, Dr. Bieri established a worldwide reputation for his work on fundamental biochemical and nutritional problems in the fields of vitamin A and E, selenium and the essential fatty acids.

In 1965, he was the recipient of the American Institute of Nutrition's Mead-Johnson Award for his research in these areas. He was also past president of the American Institute of Nutrition. Dr. Bieri said that the fat absorption mechanism of vitamins is poorly understood. "Children with severe fat absorption problems like cystic fibrosis are definitely aided by vitamin E, and there is a suggestion that some patients with certain inherited blood diseases like sickle cell anemia and beta thalassemia may benefit from this therapy. But there are a lot of exaggerated claims for vitamin E—good results in animals do not mean the same results in humans."

This interest in nutrition and endocrinology served him well when he became director of the biochemical laboratory of a U.S. nutrition survey team in Pakistan in 1956, and biochemical consultant to the government of East Pakistan in 1961.

Dr. Bieri also spent a year as a Fulbright Research Scholar at the department of biochemistry and nutrition at the Polytechnic Institute in Copenhagen where he worked with Nobel Laureate Dr. Henrik Dam, international authority in the biochemistry and nutrition of vitamins E and K.

DR. HUEBNER

(Continued from Page 1)

He and his colleagues at NIAID discovered the T antigen, a protein produced by adenoviruses when they infect cells.

By recognizing the presence of this marker, scientists, for the first time, were able to link viruses to cell transformation, the process of cellular change from normal to cancerous growth. His interest in viruses led to his work on the RNA-type C viruses that cause a variety of cancers in laboratory animals.

From these studies, Dr. Huebner and colleagues developed an "oncogene hypothesis" that links genes in cells to virally induced cancers of animals. Although the theory has been modified by present research, it has provided a framework for a great deal of subsequent research in cancer virology.

He graduated from the University of Cincinnati in 1938, and received his M.D. from St. Louis University School of Medicine in 1942. He then joined the U.S. Public Health Service, first as an intern and later as a commissioned officer in the U.S. Coast Guard.

In 1944, Dr. Huebner joined the Laboratory of Infectious Diseases at NIH's National Microbiological Institute, later renamed NIAID, and in 1956, became chief of the NIAID Laboratory of Viral



Dr. Bieri received the PHS Superior Service Award in 1976 for his contributions to the field of human and experimental nutrition, particularly in the areas of fats and fat soluble vitamins.

A native of Norfolk, Va., Dr. Bieri has been with the Institute since 1955. He came to the NIH from the University of Texas where he was associate professor of biochemistry and nutrition at the medical branch of the University of Galveston.

A graduate of Antioch College, Dr. Bieri received his master's degree from Penn State University and his Ph.D. in biochemistry and organic chemistry from the University of Minnesota.

His retirement plans include consulting, writing for scientific reviews, revising part of a textbook and reading for pleasure. "Everyone thinks you have to make plans—I just take one day at a time." □

Diseases. He moved to NCI in 1968, first as chief of the Laboratory of RNA Tumor Viruses, and then, in 1977, as an expert in the Laboratory of Cellular and Molecular Biology. □



Dr. Wyndham Miles was recently presented the National Library of Medicine's Director's Award for his work entitled *A History of the National Library of Medicine*. Dr. Martin M. Cummings, NLM Director, praised Dr. Miles' book as being a "landmark work, representing the first comprehensive history of the Library."

Visiting Scientists Program Participants

Sponsored by Fogarty International Center

9/14 **Dr. Madathil Gopinathan**, India, Laboratory of Environmental Chemistry. Sponsor: Dr. Oscar Hernandez, NIEHS, Research Triangle Park, N.C.

9/15 **Dr. Ruy Perez**, Mexico, Arthritis & Rheumatism Branch. Sponsor: Dr. Henry Metzger, NIADDK, Bg. 10, Rm. 9N206.

9/15 **Dr. Fabienne A. Richaert**, Belgium, Laboratory of Molecular Genetics. Sponsor: Dr. M. Dubois-Dalcq, NINCDS, Bg. 36, Rm. 4A01.

9/17 **Dr. Chang Chi-Shen**, China, Laboratory of Chemistry. Sponsor: Dr. Arnold Brossi, NIADDK, Bg. 4, Rm. 135.

9/19 **Dr. Raymond Boston**, Australia, Laboratory of Mathematical Biology. Sponsor: Dr. Charles Dilisi, NCI, Bg. 10, Rm. 4B56.

9/19 **Dr. Jean-Philippe Boulenger**, France, Biological Psychiatry Branch. Sponsor: Dr. Thomas Uhde, NIMH, Bg. 10, Rm. 3S239.

9/20 **Dr. Deng Shu-Yi**, China, Laboratory of Sensory Motor Research. Sponsor: Dr. Michael Goldberg, NEI, Bg. 9, Rm. B1E10.

9/20 **Dr. Daniel Eskinazi**, France, Laboratory of Oral Medicine. Sponsor: Dr. Abner Notkins, NIDR, Bg. 30, Rm. 121.

9/20 **Dr. Hiroshi Tsujibo**, Japan, Laboratory of Genetics. Sponsor: Dr. Steven Li, NIEHS, Research Triangle Park, N.C.

9/21 **Dr. Philippe Lang**, France, Immunology Branch. Sponsor: Dr. Gene Shearer, NCI, Bg. 10, Rm. 4B55.

9/22 **Dr. Young Moo Ro**, Korea, Cardiology Branch. Sponsor: Dr. Randolph Patterson, NHLBI, Bg. 10, Rm. 7B03.

9/23 **Dr. Christine Debouck**, Belgium, Laboratory of Biochemistry. Sponsor: Dr. Martin Rosenberg, NCI, Bg. 37, Rm. 4D15.

9/23 **Dr. Masanobu Satake**, Japan, Laboratory of Infectious Diseases. Sponsor: Dr. Robert Chanock, NIAID, Bg. 7, Rm. 301.

9/24 **Dr. Zdenka Matijasevic**, Yugoslavia, Cellular and Genetic Toxicology Branch. Sponsor: Dr. Errol Zeiger, NIEHS, Research Triangle Park, N.C.

9/27 **Dr. Carlo Garzelli**, Italy, Laboratory of Oral Medicine. Sponsor: Dr. Abner Notkins, NIDR, Bg. 30, Rm. 121.

9/27 **Dr. Juan Christian Orrego**, Chile, Laboratory of Molecular Biology. Sponsor: Dr. Ernst Freese, NINCDS, Bg. 36, Rm. 3D02.

9/28 **Dr. Yoshihara Itoh**, Japan, Experimental Therapeutics Branch. Sponsor: Dr. John Kebabien, NINCDS, Bg. 10, Rm. 6D16.

9/29 **Dr. Yasufumi Kataoka**, Japan, Laboratory of Preclinical Pharmacology. Sponsor: Dr. E. Costa, NIMH, WAW Bg., St. Elizabeths Hospital.

10/1 **Dr. Talapady Bhat**, India, Laboratory of Molecular Biology. Sponsor: Dr. David Davies, NIADDK, Bg. 2, Rm. 316.

10/1 **Dr. Gordon Bolger**, Canada, Laboratory of Bioorganic Chemistry. Sponsor: Dr. Phil Skolnick, NIADDK, Bg. 4, Rm. 412.

10/1 **Dr. Francesca de Ferra**, Italy, Laboratory of Molecular Genetics. Sponsor: Dr. Robert Lazzarini, NINCDS, Bg. 36, Rm. 4A05.

10/1 **Dr. Fakhzaman Ghazanhari**, Iran, Section on Molecular and Developmental Genetics. Sponsor: Dr. Anil Mukherjee, NIAAA, Bg. 6, Rm. 1A07.

10/1 **Dr. Hidetoshi Ikeda**, Japan, Laboratory of Viral Diseases. Sponsor: Dr. Wallace Rowe, NIAID, Bg. 7, Rm. 304.

10/1 **Dr. Gabriel Kaufmann**, Israel, Laboratory of Molecular Biology. Sponsor: Dr. Robert Martin, NIADDK, Bg. 2, Rm. 322.

10/1 **Dr. Joseph Koscielniak**, U.S., Arthritis and Rheumatism Branch. Sponsor: Dr. John Decker, NIADDK, Bg. 10, Rm. 9N218.

10/1 **Dr. Alfred Michael Rogan**, Australia, Medicine Branch. Sponsor: Dr. Robert Ozols, NCI, Bg. 10, Rm. 12N226.

DR. WESTHEIMER

(Continued from Page 1)

award to outstanding organic chemists. Dr. Westheimer received an honorarium of \$10,000, with an additional \$10,000 for his research, plus a gold medal.

Dr. Westheimer's long research career and prominence in the field centers around his interest in understanding and delineating the mechanisms of enzyme reactions.

A graduate of Dartmouth College, with a degree in chemistry, he has spent most of his professional career at Harvard University where he earned his master's degree and doctorate in chemistry. He was chairman of the department of chemistry from 1959 to 1962.

He has served on numerous national scientific councils, including the National Academy of Sciences and the President's Science Advisory Committee. He has also been a senior Fulbright Fellow and a Guggenheim Fellow, and is the recipient of many awards for his research accomplishments in organic chemistry.

Some of his honors include the James Flack Norris Award in Physical Organic Chemistry, the Willard Gibbs Medal, the William Lloyd Evans Award, and the Naval Ordinance Award.

His lectureships include the Morrell Lectures, Centenary Lecture of the Chemical Society, Folkers Lectures, Baker Lectures, Priestly Series, Kharasch Lectures, David Rivett Lecture, and the Warner Lecture.

Dr. Westheimer is a member of the American Academy of Arts and Sciences and a former editorial board member of the *Journal of the American Chemical Society*. □

R&W Offers Special Harvest Sale

The R&W stores in Bldgs. 10, 31, 38 and the Westwood Bldg. are offering special discounts to R&W members ranging from 10 to 20 percent off the usual low R&W prices. Some of the items involved are Christmas cards, jewelry, T-shirts, small appliances, and video games.

The sale ends Nov. 26. □



Dr. Leo Whitehair, director, Primate Research Centers Program (l), was awarded the Public Health Service Commendation Medal for his role in helping the seven DRR-supported centers "maintain vigorous and progressive research programs..." With Dr. Whitehair is his wife, Gloria.

Raymond Atwell Wins AALAS Durbin Award

Raymond Atwell, junior animal caretaker technician, Division of Research Services, has received the 1982 Durbin Award.

The annual award, presented by the National Capital Area Branch of the American Association for Laboratory Animal Science, was created in honor of the late Dr. Charles Durbin, a prominent research veterinarian at the Food and Drug Administration.

Mr. Atwell, an animal caretaker at NIH since 1973, was cited as "the person considered most efficient in the feeding, handling, and care of animals in the NCAB area."

His present duties include care, inventory, diet prep, administration of drugs as prescribed, nursery care, and reproductive behavioral analysis of several species of New World primates.

Mr. Atwell has demonstrated his dedication to animal caretaking in his position. He has taken numerous courses under the AALAS training program, and has made



Mr. Atwell (l) was presented the Durbin Award by Dr. David M. Renquist, chief, Primate Quarantine Unit, DRS. The awardee was a jockey and horse trainer before joining NIH.

personal visits to various primate centers at his own expense and time. □

Potential Grantee Interaction Is STEP Forum Subject

NIH Staff Interaction with Potential Grantees is the subject of the next STEP Forum. It will cover a range of issues on this topic.

Does such interaction limit itself merely to technical information? At what point does such interaction border on conflict of interest? Is there value to a staff visit prior to the submission of an application? What is the role of the review staff in such interactions?

These and related questions will be addressed by Dr. Barbara L. Packard, director, Division of Heart and Vascular

Diseases, NHLBI; Dr. Brian W. Kimes, chief, Cancer Biology Branch, Division of Cancer Biology and Diagnosis, NCI; and Dr. Keatha K. Krueger, Diabetes Centers Program director, Diabetes, Endocrinology and Metabolic Diseases Program, NIADDK.

This forum will be held on Tuesday, Dec. 14, in Wilson Hall from 2 to 4 p.m., and is open to all NIH employees.

No advance registration or application is necessary. For more information, call Arlene Bowles, 496-1493. □

Dr. Sheila E. Taube Becomes Grants Associate

Dr. Sheila E. Taube, formerly assistant program director for genetic biology at the National Science Foundation, has joined the Grants Associates Program for a year of training in health science administration.

Dr. Taube received her B.A. degree from Brandeis University in 1963 and her Ph.D. degree from the University of Pittsburgh School of Medicine in 1970. Her fields of specialization are animal molecular virology and mammalian cell biology.

She was a research associate and post-doctoral associate at Yale University Medical School from 1971 to 1973, where she received research support from the American Cancer Society for a project, Control of Viral Expression in Synchronized Transformed Cells.

Dr. Taube has been at NSF since 1981. The author and coauthor of a number of articles in her field, she is a member of the American Association for the Advancement of Science and the Association of Women in Science.



Dr. Taube was a former NCI grantee while at the University of Connecticut Medical School, from 1976 to 1979. Her project was Assembly of Normal and Oncogenic Enveloped Viruses.

NIH Ski Club To Hold Party

The NIH Ski Club will hold a party on Friday, Dec. 3, starting at 7:30 p.m. at the FAES Social and Academic Center. A representative of Inner Ski will make a

presentation of "Ski Thotic" and "Canting." The price of admission is \$1 for members, and \$2 for nonmembers.

Those wishing to join the club may do so at the door; membership is \$3. □

DRINKING

(Continued from Page 1)

had a marked effect on the fetus. All five fetuses in the study developed severe hypoxia (oxygen deficiency) and acidosis (abnormal blood acidity), which disappeared after umbilical function recovered.

These changes were not observed in the mothers, nor was there any interruption of umbilical circulation in two control monkeys injected with a sugar and salt solution or in two other control monkeys who received no injection.

The effects of alcohol on the fetus have been a source of research interest and controversy for years. It is well-known that heavy, chronic drinking by the mother during pregnancy can cause birth defects in her child.

About 1 in 750 infants in the United States is afflicted to some degree with fetal alcohol syndrome, a cluster of defects that appear in babies born to alcoholic women. These defects, which are permanent, include characteristic head and facial malformations, heart and limb abnormalities, growth deficiency, impaired motor development, and mental retardation.

What is not clear are the effects of moderate or "social" drinking on the fetus. Consumption of moderate amounts of alcohol by pregnant women has been linked to subtle abnormalities in attention, behavior, and learning in children.

Fetal brain cells are extremely sensitive to low levels of oxygen, notes Dr. Mukherjee. While a single episode of hypoxia may or may not have discernible consequences, he says, one has to wonder about the cumulative effect of repeated episodes.

He and his colleagues suggest that alcohol-induced hypoxia during the fetal period may account for mental retardation in children with fetal alcohol syndrome. □

Women Volunteers Wanted for Tests

The Uniformed Services University of the Health Sciences needs women volunteers as subjects in an exercise stress test. For further information, call Sue Wigutoff at 295-3623. □



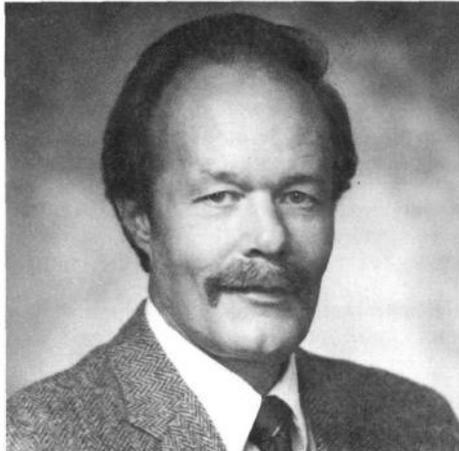
Ellen M. Chu, librarian, Division of Computer Research and Technology, received an NIH Merit Award to recognize her excellence and leadership as the DCRT librarian. Dr. George H. Weiss (l), chairman of the DCRT library committee, and Dr. William C. Mohler, division associate director, presented the award. Ms. Chu has developed the library into a unique resource providing a collection of over 6,000 monographs and technical reports, 270 current journals, and access to 100 online bibliographic files.

Dr. Rodgers Appointed Urology Program Director

Dr. Charles H. Rodgers has been appointed director of the Urology Program of the Division of Kidney, Urologic, and Hematologic Diseases, NIADDK.

The Urology Program supports basic, applied and clinical research and research training in the field of urology.

Dr. Rodgers' background has special relevance for the program, particularly for the major areas of benign prostatic hyperplasia and lower urinary tract physiology and pathophysiology.



Dr. Rodgers' research career has focused on both animal and human investigations assessing endocrine, brain and neuroendocrine parameters in reproductive physiology, and in human psychopathology.

He came to NIH in 1981 as a grants associate.

Dr. Rodgers received his Ph.D. in physiological psychology from Claremont Graduate School in 1966, and completed his postdoctoral research fellowship in physiology-neuroendocrinology at Stanford University Medical School in 1968.

He then joined the graduate faculty in the Colleges of Arts and Sciences and Veterinary Medicine at Iowa State University.

From 1970 to 1981, he was a member of the graduate faculty in physiology and biophysics at the University of Illinois Medical School, where he became an associate professor.

He has authored or coauthored more than 30 scientific articles and other publications, including chapters of several medical books. □

Don't Take It Easy...START EXERCISING!

"If exercise could be packed into a pill, it would be the single most widely prescribed, and beneficial medicine in the nation," said Dr. Robert N. Butler, former Director of the National Institute on Aging.

Each year more and more scientific evidence points to the truth of this statement. Regular physical activity can help the human body maintain, repair, and improve itself to an amazing degree. Most older people—even those with illnesses or disabilities—can take part in moderate exer-

New NLM Exhibit Portrays The Conquest of Smallpox

An exhibit tracing the history of the conquest and eradication of smallpox is currently on display at the National Library of Medicine until Mar. 20.

First described by a medical writer, Rhazes, at about 910 A.D., smallpox became Europe and America's most dreaded disease by the beginning of the 18th century.

From the first smallpox inoculation effort in 1721 to the eradication some 2½ centu-



Vaccinating the baby. Smallpox inoculation was introduced in both London, England, and Boston Mass., in 1721. Its greatest benefit was to prepare the way for inoculation with cowpox, or vaccination, which Edward Jenner first investigated and described in 1798.

ries later, there has not been a single occurrence anywhere in the world since 1977 in Somalia.

Fortunately in the United States, the smallpox usually took a mild form, but an epidemic of malignant smallpox in 1924-25 caused 1,270 deaths. Vaccination became much more widespread in the 1930's and the attack rate declined thereafter.

The eradication of smallpox worldwide represents one of the most successful international cooperative efforts by the World Health Organization with assistance from the United States, USSR, India, Brazil, Bangladesh, and Africa. □

Let us not concern ourselves about how other people do their duty, but concern ourselves about how we shall do ours.—
Lyman Abbott □

cise programs.

Many older people enjoy exercises such as walking, swimming, and bicycle riding. However, if one has been inactive for many years, that person should never try to do too much too soon. Start by seeing a doctor, especially if over age 60, if suffering from a disease or disability, or if taking medication.

For more information, write to *Age Page*, NIA, Bldg. 31, Rm. 5C36, Bethesda, Md. 20205; (301) 496-1752. □

NCI Career Development Program Interns Selected



The new NCI administrative career development interns are (l to r): Catherine Brady McClave, Lawrence Ray, and Gretchen Brewer.

Three HHS employees completed a rigorous selection process and were recently chosen from among 164 applicants to the National Cancer Institute's Administrative Career Development Program.

By combining professional assignments and advanced courses, the interns will pursue an intense 3-year program to develop their skills in management and administration.

The program began in the late 1960's and ran until 1979. It has been renewed on a pilot basis and will be evaluated at the end of this year. It is designed to meet the need for managers and administrators in large Federal research institutions. Openings were advertised throughout HHS from Mar. 22 to Apr. 9.

The interns are: Gretchen Brewer, a nurse educator at the Clinical Center; Catherine Brady McClave, a management analyst in NIH's Office of Research Services; and Lawrence Ray, formerly a program administrator with the National Institute on Alcohol Abuse and Alcoholism. They began their training Sept. 19.

Each intern will select a minimum of three of seven possible NCI assignments: financial management, administrative management, personnel management, contracts or grants management, management analysis, or equal employment opportunity policy and procedure.

Assignments are for 12-month periods but can be modified, thus allowing an intern to choose assignments in more than three areas.

Each intern has been assigned to an NCI administrative management professional who acts as a counselor, guiding the intern's professional development. The interns also are encouraged to participate in occupationally related, self-development activities outside the ACD program.

A graduate of the nursing program at Columbia University in New York, Ms. Brewer received her M.S. in management and human behavior from the University of Maryland.

She feels the ACD program offers her a unique opportunity to incorporate her experience and education with personal interests such as health care legislation.

For Ms. McClave, the program joins her

experience in science and her interest in administration. She received her B.S. in biology and her M.S. in microbiology from Catholic University. She has worked as a microbiologist in the Laboratory of Molecular Biology and Laboratory of Biochemistry in NCI's Division of Cancer Biology and Diagnosis.

She also worked as an executive secretary at the Fogarty International Center before moving to a management analyst position in NIH's Office of Research Services.

Mr. Ray sees the program as a unique opportunity for individuals from a variety of professional backgrounds to combine their experience with career development. He graduated from the University of Kentucky-Lexington with a combined B.A. in education, sociology, and biological sciences, and also received his M.A. in rehabilitation counseling there.

He has worked as a counseling psychologist in the Clinical Research Center in Lexington, Ky., a program development specialist in the National Institute on Drug Abuse, and more recently as a program administrator in the NIAAA. □

Dr. John Blake Retires; Was NLM Division Chief

Dr. John B. Blake, chief of the National Library of Medicine's History of Medicine Division for 21 years, retired in October.

Dr. Blake, a scholar and lecturer, was past president of the American Association for the History of Medicine from 1972 to 1974.

Prior to joining the staff of NLM in 1961 he was curator of the Smithsonian Institution's Division of Medical Sciences.

Under his leadership the Library's HMD significantly increased the size of its historical holdings and vastly improved the methods and speed of cataloging the collection.



Dr. Blake (l) received the Regents Award from chairman Dr. William Mayer in October. He was cited for his "scholarly work in developing the Library's resources for historical scholarship in medical and related sciences into one of the richest of any institution in the world."

He has edited and published numerous papers, chapters, and proceedings of conferences in the historical field.

Dr. Blake was honored by the AAHM with the Welch medal in 1980, and most recently with the NLM Board of Regents Award for Scholarly or Technical Achievement. □

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