NCI Presents Award For Cancer Virology To Dr. George Klein

Dr. George Klein, professor of tumour biology and head of the Institute for Tumour Biology, Karolinska Institutet Medical School, Stockholm, recently received the National Cancer Institute's Annual Virus Cancer Program Award for outstanding contributions to the field of cancer virology.

Dr. John B. Moloney, NCI associate director for Viral Oncology, presented the plaque to Dr. Klein at the 12th Joint Working Conference of the Virus Cancer Program in Hershey, Pa.

Highly Competent Teacher

The first scientist from outside the U.S. to receive this award, Dr. Klein has published extensively in the field of viral oncology and is recognized as a teacher of unusual competence.

Born in Budapest in 1925, Dr. Klein joined the Karolinska Institutet in 1947. He is a member of the Nobel Committee on Physiology and Medicine, and in 1973 was honored by election to the National Academy of Sciences as a foreign associate.


Changes in Recombinant DNA Research Guidelines To Be Reviewed at Meeting

A public meeting to provide a forum for review of proposed changes in the NIH recombinant DNA research Guidelines will be held at NIH Dec. 15-16.

The meeting will open at 9 a.m. on Thursday, Dec. 15, in Conference Room 6, Bldg. 31 C wing.

Dr. Donald S. Fredrickson, NIH Director, will present proposed Guidelines for comment by invited witnesses who represent science, industry, those concerned with environmental impact, labor, and agriculture.

Other witnesses who wish to comment will be given reasonable opportunity to do so.

Members of the Director's Advisory Committee will participate in a discussion of the issues following testimony by the witnesses.

When the original Guidelines were proposed in February 1976, this Advisory Committee heard testimony from many witnesses.

Dr. Fredrickson and his staff carefully considered the testimony and other comments before the Guidelines were promulgated in July 1976.

A similar procedure will be followed in considering proposed

Advisory Committee Members and Invitees At Guidelines Meeting

Members of the Advisory Committee to NIH Director Dr. Donald S. Fredrickson will participate in a public meeting here Dec. 15-16 to review proposed changes in the NIH DNA research Guidelines.

Advisory committee members who will attend are:

Dr. Julius H. Comroe, Morris Herstein Professor of Biology, Cardiovascular Research Institute, University of California, San Francisco; Dr. Hans J. Muller-Eberhard, chairman, department of molecular immunology, Scripps Clinic and Research Foundation; and Dr. James V. Neel, Lee R. Dice University Professor of Human Genetics, University of Michigan Medical School.

Also, Dr. Jeanne Sinkford, dean, College of Dentistry, department of restorative dentistry, Howard University; Dr. Katherine Sturges, Wynnwood, Pa.; and Dr. Sidney Udenfriend, director, Roche Institute of Molecular Biology.

One committee member unable to attend is Dr. Donald H. Fink, director, National Institute of Dental Research.

Dr. Charles McCarthy, chief of the Legislative Development (See ADVISORY, Page 5)

Dr. Jacob Brody Named NIA Associate Director For 3 Research Fields

Dr. Jacob Brody is a fellow of the American Public Health Association and a member of the Scientific Advisory Committee of the Muscular Dystrophy Association of America, among numerous professional affiliations.

Dr. Brody has been appointed associate director for Epidemiology, Demography, and Biometry in the National Institute on Aging.

In this position, Dr. Brody will be responsible for developing a research program on human aging and the diseases of the elderly, and for providing direction to NIA epidemiologic, demographic, and biometric investigations.

Established in 1974, NIA conducts and supports research which seeks a better understanding of the aging process, as well as diseases and other special problems of the elderly. The ultimate goal of this research is to improve the quality of life by extending the healthy, productive, middle years, not simply to lengthen life.

Dr. Brody is currently evaluating demographic data—information on the size of the elderly population, sex ratios, and some information on health and the causes of death, for example—made available by the Bureau of the Census and a variety of other sources.

In this way, Dr. Brody hopes to (See DR. BRODY, Page 7)

Holiday Greetings to All!

The NIH Record staff wishes to extend season's greetings to all and best wishes for happy and safe holidays.

This is the last issue in December. The next Record will be published Jan. 10, 1978.
R&W Now Has Tickets For Arts Performances

The Recreation and Welfare Association has begun sponsoring a series of cultural events presented by the Washington Performing Arts Society. Money raised through the sale of tickets will be used for R&W welfare activities.

Coming Attractions Listed

• Feb. 15, 1978, Alvin Alley American Dance Theater. This company dances to jazz, symphonic, and spiritual music.
• March 17, 1978, Vladimir Ashkenazy and Itzhak Perlman will perform violin/piano duos.
• In April, New York cabaret singer Bobby Short will perform.
• In June, the Ballet Nacional de Cuba will feature Alicia Alonso.

C.O.'s, Civilians Receive Different Mileage Rates

Application of the recent mileage rate increase for automobiles used on official Government business differs between civilian employees and commissioned officers. Civilians may receive 17 cents per mile, and commissioned officers may receive 17 cents less per mile for local travel, but the travel rate for commissioned officers from point to point and to and from common carrier terminals from home or office remains 7 cents per mile.

FAES Graduate School Spring Class Schedule May Be Obtained at CC

The FAES Graduate School spring semester courses have been scheduled, and the schedules are now available in the school office in the Clinical Center, Room B1-L-101, or call 496-5872 to have one sent.

The evening classes, sponsored by the Foundation for Advanced Education in the Sciences, will be given on the NIH campus.

Classes Offered

Courses are offered in biochemistry, biology and microbiology, chemistry, genetics, immunology, physics, physiology, medicine, mathematics, statistics, nursing, languages, administration, and courses of general interest.

Medical Subspecialty Review courses being offered are MEDI 610M, Internal Medicine (continuation), MEDI 612M, Infectious Diseases, and MEDI 614M, Clinical Hematology.

Tuition is $26 per semester hour, and courses may be taken for credit or audit.

Register By Mail Now

Students currently enrolled in courses that continue through the spring semester must reregister. Those students whose expenses will be paid by the Government should apply at once to their administrative offices for training assistance.

Classes will begin on Feb. 6, and registration is possible by mail now through Jan. 13, and in person from Jan. 13 through Feb. 1.

DOING IT BY THE RECIPE, as per the slogan of the latest NIH t-shirts. NIH Director Dr. Donald S. Fredrickson tries out the first copy of The NIH Cookbook. Compiled by an R&W committee and worthy of the finest culinary experts, the cookbook is filled with gourmet delights—recipes for appetizers, soups, salads, main dishes, vegetables, cakes, and cookies. L to r: Randy Schools, R&W general manager; committee members Agnes Richardson, Rowena Ahern, and Nancy Molenof; Dr. Fredrickson; and Ceci Petrie, chairperson.

R&W Holds Auction, Trip For Patients, Volunteers

On Nov. 19, a bus load of patients and volunteers were guests of the Recreation and Welfare Association at the University of Maryland vs. University of Virginia football game. As part of NIH day at Byrd Stadium, the group saw Maryland defeat conference rival Virginia in the last home game of the season.

Money was raised for the event by an auction that was held at the R&W Fall Picnic during the month of October. J. B. Walker of WOOK, auctioned off dinners at local restaurants, cookware sets, Bullet's tickets, and other items to raise money for tickets to the game.

New Program To Invite Minorities and Women For Extramural Training

A new Extramural Associates Program is promoting the participation of ethnic minorities and women in NIH-supported research.

Under the program, NIH will invite up to eight key administrators, involved with science, from schools which contribute significantly to the pool of minorities and women in science, to spend up to 1 year in NIH's extramural-collaborative programs.

Upon returning to their institutions, the Associates are expected to inform faculty, administrators, and students concerning federally-funded programs.

While in the program, the Associates will work in rotating assignments with senior staff members of NIH and other Federal agencies.

They will attend seminars, committee meetings, workshops, and site visits and will be able to obtain on-site information about Federal health-related programs and associated granting and contracting activities.

Initial plans for the program were developed by a group of health scientist administrators and other NIH staff at the Third Affirmative Action Retreat in February 1976.

Plans were completed by Dr. Zora Griffo, OD, chairman, and the Coordinating Committee for NIH Minority Research and Training.

Committee members will serve as advisors to the Associates, the first group of whom will be in the program from Aug. 1, 1978, to Jan. 31, 1979. Extensions for up to 6 months may be negotiated.
An Extraordinary Teenager, Bob Longo, Recruits 92 Blood Donors, Aids Others

Bob Longo is not an ordinary teenager—he has undergone more in his 18 years than most people do in a lifetime. Bob has bone cancer. His left leg was amputated in 1975, he had surgery in 1976 for a metastasis in his lung, and he still suffers from nausea.

In spite of these problems, Bob will be graduating this June from Rockville High School. In his spare time he manages a cross-country track team and works in a student-run business called Junior Achievement. On top of that, Bob skis and runs 2 miles a day on crutches.

Bob's determination led him to his most recent project—signing up 100 blood donors for the Clinical Center Blood Bank, to help him complete the “life rank” requirements for the Boy Scouts.

Bob announced his donor plan to area churches, his Boy Scout troop, and his high school. His efforts brought in 92 pints of blood from the 108 donors he scheduled on 3 consecutive Saturdays in October and November.

Members of the Clinical Center Blood Bank staff screened the donors and drew blood. The entire Longo family, including Bob's two brothers, assisted in checking in the donors and serving refreshments.

Church women and his Boy Scout troop baked cookies for the donors and CC staff volunteered to work on those days.

Bob will be facing surgery again this June, but this time he'll be across the street at Naval Medical Center. His long range plans after surgery are to attend Montgomery College and then Frostburg State College, perhaps in the field of recruitment or public relations.

National Health Leaders To Address Next Annual PHS Meeting in March

Two of the nation's foremost experts on health are expected to share the podium at the 13th annual meeting of the Professional Association of the U.S. Public Health Service, to be held at the Atlanta Hilton Hotel, Atlanta, Ga., March 27-30, 1978.

Dr. Bourne, Richmond To Speak

Dr. Peter C. Bourne, Special Assistant to the President for Health Issues, will present the annual Luther Terry Honorary Lecture, March 28, while Dr. Julius B. Richmond, Assistant Secretary for Health, HEW, is tentatively scheduled to address the opening luncheon the same day.

Two General Sessions in disease prevention also have been sched-
Thymic manipulation may be a useful treatment in some cases of Systemic Lupus Erythematosus (SLE), according to investigators at the Health Sciences who are partially Allergy and Infectious Diseases. Patients were then incubated with calf thymosin, a thymic hormonal fraction, or cultured thymic epithelium (CTE) and tested. After incubation with thymosin, 7 of 12 patients with SLE showed significant suppressor activity. Culturing SLE cells with CTE also generated suppressor cells in 4 of 7 patients.

The researchers believe that these results indicate SLE patients lack suppressor function since this function was absent in the 14 SLE patients studied.

In addition, the investigators suggest that since suppressor cell activity could be induced in SLE cells by incubation with thymosin or CTE, thymic manipulation might be a potential therapeutic technique in some cases of SLE.

Drs. Sheldon Horowitz, Wayne Borcherdin, A. Vishnu Moorthy, Russell Chesney, Hermann Schulle, Wittgensmann, and Richard Hong, University of Wisconsin Health Center, Madison, and Dr. Allan Goldstein, University of Texas Medical Branch, Galveston, reported these findings in the Sept. 2, 1977 issue of Science.

**DRG Code Booklet Is Available**

The 1977 edition of Activity Codes, Organizational Codes, and Definitions Used in Extramural Programs is available from the Statistics and Analysis Branch, Division of Research Grants.

The publication presents various codes and definitions used in the NIH IMPAC system to identify extramural activities.

**Betty Rager of DRS Receives Award From AALAS**

Betty B. Rager recently received the Animal Technician Award presented by the National Capital Area Branch of the American Association of Laboratory Animal Science at their annual meeting in Cockeysville, Md.

This award is presented annually to an outstanding supervisor in the field of laboratory animal science.

Ms. Rager began her career as an animal technician with Microbiological Associates in August 1960. In March 1964 she came to the Small Animal Section, Veterinary Resources Branch, DRS, as an animal caretaker, leader, and supervisor.

The award recognizes her particular adeptness at managing personnel, instilling a sense of accomplishment and pride, as well as attaining a high level of animal care and production.

**Eating Habits Studied**

The NIDR is encouraging the study of the development of taste—from the fetus, to the newborn, toddler, child, teenager, and adult—to find out how detrimental eating habits develop.

From this approach ways to prevent or to change such patterns should emerge.

Taste, which affects nearly all Americans, can be controlled by diet. The overeating of sweets also contributes to obesity, diabetes, and heart problems.

Conventional motivational techniques have failed to persuade people to limit sweets. Therefore, new techniques must be developed through basic nutritional and behavioral study.

The symposium, which was held at NIH in June 1974, and the new book bring together advances from taste research conducted on adult subjects with recent studies on animal fetuses and human newborns that have required development of new methodology.

**Taste Developed Before Birth**

For example, the book contains reports that the sense of taste appears to function before birth in some species and that receptors already are developed in the fetus.

Physiological studies demonstrate the lamb sucking and swallowing before birth. Furthermore, newborns—be they human, pig, rat, or hamster—respond positively to sweet taste by drinking more of solutions with a sweeter taste.

Young rats learn from older ones to choose certain foods and to avoid poisoned ones, according to reports made at the symposium.

A limited number of single copies of the hard-bound publication can be obtained from its editor, Dr. James M. Weiffenbach, Oral Pharyngeal Development Section, NIDR, Bldg. 31, Room 3B-10, NIH, Bethesda, Md. 20014.

The book is available for $9 from the Superintendent of Documents, U.S. Government Printing Office, Washington, D.C. 20402. When ordering from the GPO, include a check or money order and request by title and stock number 017-047-00009-4, DHEW Publication No. (NIH) 77-1066.
International Experts on Aging Agree on Need To Share Research Ideas, Data

A 3-hour roundtable discussion was held with members of the U.S. Senate Special Committee on Aging in the Senate Caucus Room.

NIH Visiting Scientists Program Participants

11/23—Dr. Meher H. Irani, India, Biochemical Genetics Section. Sponsor: Dr. Max Gottesman, NCI, Bg. 37, Rm. 4B08.

12/1—Dr. Abraham-Heftey, Israel, Laboratory of Chemistry. Sponsor: Dr. Henry M. Fales, NHLBI, Bg. 10, Rm. TN314.

ADVISORY

(Continued from Page 1)

Branch, OD, is executive secretary of the Advisory Committee.

Special invitees for the purpose of this meeting only are:

Dr. James M. Gustafson, professor of biological ethics, University of Chicago; Professor Walter A. Rosenblith, provost, Massachusetts Institute of Technology; and Dr. A. Kartin Ahmed, National Resources Defense Council.

Also, Jon Besty, student member of Institutional Biosafety Committee, department of microbiology, Oregon State University; Dr. Robert L. de Roos, director, department of environmental health and safety, Roynon Health Service, Minneapolis; and Dr. Harold Ginesberg, chairman, department of microbiology, Columbia College of Physicians and Surgeons (on sabbatical at Rockefeller University).

Also, Dennis Helms, special assistant to the attorney general, Trenton, N.J.; Peter Hurt, Covington & Burling law offices, Washington, D.C.; and Dr. John Kendrew, European Molecular Biology Laboratory, Heidelberg, Federal Republic of Germany.

Law Professor Invited

Also, Patricia King, associate professor of law, Georgetown University Law Center; Rosemary Menard, laboratory technician and member of Institutional Biosafety Committee, department of biochemistry, University of Washington, Seattle; and Dr. Mario Molina, department of chemistry, University of California, Irvine.

Also, Dr. Mervyn Shaw, acting dean, University of Texas Graduate School of Biomedical Sciences; Dr. Robert Simmons, chancellor, University of California, Santa Cruz; and Dr. Ann Vidaver, department of plant pathology, University of Nebraska.

“Within 40 to 45 years, one in five over 65 years of age, and we view Butler, Director of the National Institute on Aging, told experts at an international meeting of directors of national institutes with programs in the field of aging, held on Nov. 9-12 here at Stone House.

Sponsored jointly by the NIA, Fogarty International Center, and World Health Organization, the meeting brought together specialists from 11 countries.

They discussed research needs and the use of research to help countries adjust to a growing aged population and the changes in economic, social, and health care systems this growth necessitates.

Dr. Butler chaired the meeting along with Dr. R. Glyn Thomas, Regional Officer for the Development of Community Services, WHO, Copenhagen, Denmark, and Dr. Milo L. Leavitt, Jr., FIC Director.

Observers included representatives of the White House, Congress, and United Nations as well as HEW staff.

Participants Listed

Invited participants were Sir Ferguson Anderson, University of Glasgow, Scotland; Professor Ana Aslan, Director, National Institute of Gerontology and Geriatrics, Bucharest, Romania; and Professor Francois Bourliere, Head, INSERM Gerontology Research Unit 118, Paris, France.

Also, Professor Dmitriy F. Chebotarev, Director, Institute of Gerontology of the USSR Academy of Medical Sciences, Kiev; Henning Fris, Executive Director, Danish National Institute of Social Research, Copenhagen; Dr. Gudmund Harlem, Medical Director, Institute of Medical Rehabilitation, Oslo, Norway; and Dr. Hans Hermann, Scientific Secretary, Third Medical Clinic, Prague, Czechoslovakia.

Also, Professor Carel F. Hollander, Director, Institute for Experimental Gerontology TNO, Rijswijk, Netherlands; Dr. Kunio Ota, Director, Tokyo Metropolitan Institute of Gerontology, Japan; Professor Alvar Svannberg, Head, Clinic II, Vasa Hospital, Gothenburg, Sweden; and Dr. Gustav Vig, Chairman of the Board, Norwegian Institute of Gerontology, Oslo.

These experts discussed several areas in which improved international cooperation could hasten the application of research results to improved life for the elderly.

Approaches Vary

The meeting opened with individual discussions of the current work of each institution and the means by which they choose research directions. Although their approaches vary, the general interest of most appeared to be in the causes and prevention of the disabilities of old age.

The need to exchange research data and materials, such as tissue cultures and cell lines, was agreed on as was the importance of epidemiological studies.

The scientists discussed using longitudinal studies from other areas of medicine—such as the Framingham study of heart disease—as bases for epidemiological analyses of aging populations.

The directors emphasized the need for training, and the exchange of scientists was seen as one way to provide training and share research ideas. FIC staff also discussed the possibilities of exchange through NIH, including the establishment of an international fellowship program.

Nov. 10 was an especially interesting day for the directors. In the morning they participated in a 3-hour roundtable discussion on "The Graying of Nations: Implications" with the U.S. Senate Special Committee on Aging.

After a brief presentation by each director, the Senators—represented by Senators Frank Church, Idaho, chairman; Pete V. Domenici, New Mexico; John Glenn, Ohio; and Charles H. Percy, Illinois—posed questions for them.

A lunch with members of the Senate Foreign Relations Committee followed.

President is Interested

That afternoon Mrs. Rosalynn Carter greeted the directors at the White House. She impressed on the group the interest of the President, the Executive Branch, and herself in their endeavors.

Also present was Nelson Crumshank, White House Counselor for the Aged.

That evening the directors were the guests of the Health Staff Seminar at GWU, and the following morning they toured NIA's Gerontology Research Center in Baltimore.

This conference was the second of a series that began in Copenhagen in November 1976. At this second meeting the directors decided to have a 1-day discussion on Geriatric Medicine at the August 1978 International Congress of Gerontology in Tokyo, to be followed by a longer meeting in Glasgow, Scotland, in the spring of 1979.

Dr. Green will discuss Rawls' Theory of Justice

Dr. Ronald Green, of Dartmouth College's department of religion, will speak at the next Biomedical Ethics Seminar tomorrow (Dec. 14) from 3 to 5 p.m. in Bldg. 1, Wilson Hall.

Dr. Green will discuss Rawls' Theory of Justice: Distribution of Scarce Resources.

The seminar is part of the STEP Continuing Education Program.
Dr. Carl M. Eklund, RML Retiree, Dies in Montana

Dr. Carl M. Eklund, former head of the Arbovirus and Chronic Viral Disease Section of the Rocky Mountain Laboratory, National Institute of Allergy and Infectious Diseases, died Nov. 25 in Hamilton, Mont.

Dr. Eklund had retired from the U.S. Public Health Service after 22 years of service in 1967 but continued his association with the Rocky Mountain Laboratory as a consultant.

In addition, after his retirement, Dr. Eklund became a staff member at the University of Minnesota.

Joined RML in 1945

Except for his first year with the Public Health Service, Dr. Eklund's career was spent at the Rocky Mountain Laboratory. In 1968, he was awarded the DHEW Distinguished Service Medal for his pioneer investigations of slow viral infections.

During his early years at RML, Dr. Eklund was instrumental in developing much of our knowledge on the ecology of mosquito- and tick-transmitted virus diseases, especially the encephalitides and Colorado tick fever.

Developed Animal Models

Subsequently, with Dr. William Hadlow, he developed methods to study the pathogenesis of slow viral diseases of animals as experimental models for possible counterpart diseases of man, particularly those involving the central nervous system.

Born on Dec. 5, 1902, in Moorhead, Minn., Dr. Eklund received his B.A. and M.D. degrees from the University of Minnesota. Before beginning his Public Health Service career in 1945, Dr. Eklund worked for 8 years as an epidemiologist for the Minnesota Department of Health.

None are so fond of secrets as those who do not mean to keep them.—C.C. Colton

Mary Bertha Retires—Her Innovations At NIH Show Her Ahead of Her Time

Mary D. Bertha, chief of the Labor Relations Branch, Division of Personnel Management, retired early this month after completing 42 years of Federal service, most of it at NIH.

Miss Bertha's service at NIH coincided with its growth. Thirty years ago when she came to NIH to be its first employee relations officer, it was a small organization in a semi-rural area without a number of conveniences now enjoyed.

For the 1,000 employees Mary Bertha was instrumental in providing housing, participated in establishment of the R&W, and provided training for would-be typists (on their lunch hour conducted by NIH employees on their lunch hour).

Some of the programs in which she was involved were ahead of their time—she was a member of a planning committee for one of the earliest Federal programs for alcoholic rehabilitation, took part in a program for employment of the handicapped, and initiated a program to guide supervisors dealing with emotionally troubled employees.

In addition, Miss Bertha provided staff support on equal employment matters before there was a Division of Equal Employment Opportunity, and as NIH's first labor relations officer guided initial negotiations for agreements with employee organizations and training of supervisors to deal with their responsibilities in a union setting.

Another example of being ahead of her time—although happily married (she is now widowed), she used her maiden name throughout her Federal career.

Workers past and present from NIH, PHS, and HEW recently attended a farewell reception in her honor.

NIA Research Reports Show Age Alters Human Cell Surface Hormone Receptors

In the June 30, 1977 issue of Nature, Drs. Douglas D. Schocken and George S. Roth of the Gerontology Research Center, National Institute on Aging, reported their investigations demonstrating for the first time age-associated alterations of hormone receptors in cells taken directly from man.

Twenty-three male subjects ranging in age between 24 and 81 years had 112-225 ml of blood drawn at several intervals during a 2-3 month period. Subjects included participants in the NIA Longitudinal Study of Aging and other volunteers.

Subjects fasted and did not smoke for 12 hours before the study.

Mononuclear cell fractions obtained were assayed for β-adrenergic receptors. Cell yield, cell viability, and protein yield per cell did not vary with the age of the donor.

The receptors have high affinity for (-)-3H-dihydroadrenodrenol in preparations from both young and old subjects. The mean saturation level for subjects older than 46 years of age was only slightly greater than half the value for subjects 24-41 years of age.

When all data are considered, there is a significant negative correlation of receptor concentration with age.

Receptor numbers per cell also correlated inversely with age, from approximately 14,000 to 8,000 sites per cell in the young and old groups, respectively. Receptor levels in individual aspects remained fairly constant over short periods (2-3 months).

Rodents Previously Studied

Previous studies of physiological and biochemical determinants of aging in rodents have shown a decline in steroid intracellular receptor concentrations in various tissues, and the ability of steroid hormones to elicit physiological responses has been shown to diminish with age in several of these tissues. Some receptors located on the cell surface also seem to change with age. Concentrations of rat hepatic insulin receptors and adipocyte glucagon receptors, however, seem to decline very early in life.

Previous work with human material has dealt with either intracellular receptors or cells in tissue culture. Binding of glucocorticoids to intracellular receptors in human liver obtained postmortem is diminished in older individuals. The effect of age on binding of insulin to cultured human fibroblasts has also been studied.

Differences in the composition of mononuclear cell populations or individual changes in these cells might result in the variation between young and old individuals. Relative numbers of T and B lymphocytes are thought to remain fairly stable, however, during human aging.

Frog Research Cited

Diminished concentrations of β-adrenergic receptors have previously been reported in frog erythrocyte membranes exposed to catecholamines in vivo. This catecholamine-induced desensitization is a possible etiology for receptor decline in aging man, where plasma catecholamine levels are known to increase.

Several immunological functions of lymphocytes are known to be influenced by adrenergic agents.

Dr. Butler is the sixth recipient of the honor. Past recipients include: Dr. Arthur Guyton, Daniel Patrick Moynihan, Dr. Robert W. Berliner, Dr. Edward Donnal Thomas, and Dr. Eugene Braunwald.

Every Man Desires To Live Long, But No Man Would Be Old.

Dr. McIntyre served on the faculty of the University of Nebraska Medical School from 1932 until he stepped down from his post as chairman of the department of physiology and pharmacology in 1967. He now serves as a consultant to the University and holds the title of professor emeritus of pharmacology.

Frog Research Cited

Diminished concentrations of β-adrenergic receptors have previously been reported in frog erythrocyte membranes exposed to catecholamines in vivo. This catecholamine-induced desensitization is a possible etiology for receptor decline in aging man, where plasma catecholamine levels are known to increase.

Several immunological functions of lymphocytes are known to be influenced by adrenergic agents.
Dr. Robert Huebner, Lab Chief in NCI, Retires; Continues Viral Research

Dr. Robert J. Huebner has retired after 35 years with the U.S. Public Health Service. He came to NIH in 1944 and studied infectious diseases until 1968, when he became chief of the National Cancer Institute Laboratory of RNA Tumor Viruses.

Continues Research

Dr. Huebner will continue doing research at NCI as an expert consultant on RNA tumor viruses and on immune protection against cancer.

He entered the PHS in 1942 after receiving his M.D. degree from the St. Louis University School of Medicine. "I wanted to go into endocrinology," he says, "but infectious disease was the only field that was open."

While working for the National Institute of Allergy and Infectious Diseases, Dr. Huebner's experience ranged from catching rats in Harlem to checking household milk supplies in Los Angeles to investigating Coxsackie virus in Texas.

Dr. Wallace Rowe, a co-worker at NIAID, said that Dr. Huebner first recognized distinction by investigating a rickettsial outbreak in New York City.

"In record time, Dr. Huebner had identified the organism and the vector," says Dr. Rowe. "He had solved the whole problem in 2 months—and he was basically a kid just starting out."

Investigated Q-Fever

Then Dr. Huebner was off to California to investigate a Q-fever epidemic which was being spread in milk. Q-fever is a respiratory infection caused by another rickettsial microorganism.

He set up his lab in a garage and hired young people living in the neighborhood to take care of his experimental animals.

In 1950, after 3 years and between 3,000 and 4,000 household visits, his report that the disease was carried in milk was released by the American Medical Association.

"When that hit the papers, there were weeks that no milk could be sold. The dairy industry didn't even sell. The newspapers and TV covered it," he recalls.

Dr. Huebner also worked in Texas with a disease called devil's grip, distinguished by chest pain and fever. He demonstrated that devil's grip is caused by the Coxsackie B3 virus.

In the late 1950's, Dr. Huebner began to work with polyoma viruses and other tumor viruses in animals, and he developed a special procedure that enables research to be done with tumor viruses just as it is with other viruses.

He later discovered that adenoviruses produced tumors in mice. Further study showed that these tumors contained viral proteins, which are the telltale signs of virus infection in the cell.

However, subsequent studies he has conducted have shown that there is no relationship between adenoviruses and human cancer.

In 1969, Dr. Huebner and Dr. George Todaro of NCI introduced the viral oncogene theory.

This theory incorporated the idea that cancer viruses were genetically inherited and yet could be dealt with as an infectious disease, plus the idea that the key determinant of cancer is in the genes.

Oncogene Theory Cited

It states that there are transforming genes, or oncogenes, that exist in DNA and viruses. These transform the normal state to a cancerous state when a cellular mechanism is not in control.

"Dr. Huebner has a tremendous breadth of interest and the ability to see things that others just don't see," Dr. Todaro says. "His contribution to tumor virology goes far beyond the oncogene theory."

"Some of his observations in the early 1960's were key to the molecular biology now being done: things that are now being taken for granted."

Dr. Huebner is now trying to identify a tumor antigen associated with many types of cancer in man. Such an antigen might lead to the development of tumor vaccines in humans.

"There are a lot of things still left to do," he says. "One of these days I've got to write a book... It's all kind of an adventure."
Clinical Study To Decide If Beta-blockers Assist Heart Attack Survivors

A total of $545,000 in contracts has been awarded to 25 organizations by the National Heart, Lung, and Blood Institute to conduct a clinical study called the Beta-blocker Heart Attack Trial (BHAT).

The trial is designed to determine whether the regular administrations of β-propranolol (a beta-blocking agent) to people who have had at least one documented heart attack will significantly reduce mortality over a 3-year period.

Coronary heart disease and its complications account for nearly 650,000 deaths in the United States each year. It is estimated that about a quarter of these deaths occur in people who have survived a heart attack.

**Actions Described**

Beta-blockers have a number of actions, including reducing the workload and dilating blood vessels and controlling and preventing heart rhythm disturbances. This class of drugs has proven effective in conditions such as hypertension and angina.

Planning and organization of the study will take place from October 1977 through May 1978, while recruitment of participants will begin in June 1978.

Recruitment will continue for approximately 2 years, and follow-up will last an additional 2 years.

To determine if propranolol will reduce mortality, 4,200 eligible volunteers who have had a heart attack within the prior 2 weeks will be recruited to participate in this “double-blind” clinical trial, i.e., one-half of the participants will be randomly assigned to propranolol, one-half to a placebo.

The treatment allocation will be made by a Central Coordinating Center, and neither the clinic physician nor the participant will know whether the assigned drug is propranolol or the placebo.

**Eligible Participants**

Participants eligible for this study are men and women aged 30-69, with one or more documented myocardial infarctions. They must not have any contraindications to propranolol therapy and be free of life-threatening disease other than coronary heart disease.

Enrollment will be completed before hospital discharge. Each participant volunteering for this study must have the approval of his or her physician.

To forestall a repetition, each prospective participant will receive a detailed explanation of the study and a “test dose” of propranolol.

**Philosophy**

The health care practitioner is faced with a profusion of words on almost any biomedical topic. The practitioner's problem is not so much in being unable to find the sources of information as it is in having the time and access to a source of information appropriate for his needs.

The National Library of Medicine's Lister Hill Center is developing a prototype system to translate new research findings into a form useful for health care practitioners.

**Gives Comprehensive Information**

The system aims at providing a comprehensive bank of information which will:
- provide answers that are current and are the consensus of a group of experts;
- contain substantive answers to questions posed by practitioners;
- be immediately responsive to inquiries (reliable, ready access);
- provide data supporting the answers as well as citations to primary publications for more detailed study, if desired.

"Viral hepatitis" has been selected to serve as a test model for such an information transfer system.

Knowledge pertaining to aspects of viral hepatitis important to the practitioner and/or academician has been synthesized into one body or "bank" of information.

The contents are derived from several reviews or syntheses of the subject previously published by hepatitis experts.

Relevant information has been selected, placed in a highly organized hierarchical arrangement to permit easy retrieval, and encoded into a minicomputer.

The data base, still in draft form, is arranged by topics (headings). For each heading there is an accompanying heading statement which synthesizes the state of knowledge about the subject.

Each heading and heading statement is supported by "data elements"—paragraphs taken from the previously published source documents.

Citations included within the data element paragraphs are to the primary publications cited by the experts in their source document articles to back up their conclusions or general statements.

**Current Availability**

This draft data base on hepatitis can now be explored via terminals at NLM.

Dr. Lionel M. Bernstein (1) and Dr. Elliot R. Siegel experiment with the computerized on-line hepatitis data base.

**New Granting Concept To Increase Institutions’ Health Research Quality**

A new grant program which hopes to increase the quantity and quality of research taking place at institutions that do not have a substantial biomedical research base has been announced by the Division of Research Resources.

The new program, called the Biomedical Research Development Grant Program, has made initial $200,000 awards through DBR, which is administering the new granting concept.

The first 12 awards total $1.2 million.

The Biomedical Research Development Grant Program will strengthen and expand health-related research in institutions that have demonstrated a need for an enhanced research environment.

The justification for research development must be to improve the training of manpower for the clinical professions or health-related research.

"This program will not support training per se," explains Dr. Francis Kendrick, director for the BRDG Program, "... but it is expected to improve the quality of training in health areas."

Eligibility to apply for and receive funds from the new program is limited to nonprofit institutions in the U.S. and its territories which during the latest 12-month period ending Sept. 30 have received less than $200,000 in PHS biomedical and behavioral grants.

**Separate Campuses Considered**

In making the awards, each individual campus of a multi-campus university is considered as a separate institution and each health professional school is considered a separate institution.

To qualify for a BRDG award, institutions must: demonstrate conclusively the need to strengthen or expand their research base to carry out their mission in health manpower training; currently have limited health research capacity; be committed to improving and sustaining health research; and offer strong potential for health research of high quality.

These competitive awards, which will be made once a year, may be used for recruitment of research personnel, initial research salary support of key investigators, central or shared research resources including equipment, grant-related support personnel, and other direct research costs associated with the development of institutional biomedical research capability.

**Prototype Information System**

write to: Dr. Lionel M. Bernstein, Lister Hill Center, National Library of Medicine, 8600 Rockville Pike, Bethesda, Md. 20014.
New Device for Cerebral Palsy Patient Stabilizes Head During Dental Treatment

A device for stabilizing the head of a cerebral palsy patient during dental treatment is being perfected by scientists at the University of Washington, Seattle. The device, developed with support from the National Institute of Dental Research, may also help these patients strengthen and control neck muscles.

At the Annual Conference on Systems and Devices for the Disabled held in Seattle, Drs. Frederic Harris and Jack I. Nicholls explained that there are more than three quarters of a million victims of cerebral palsy in the U.S.

Other Treatments Inadequate

To treat these patients safely and effectively, dentists must either use manual restraint or administer a general anesthetic. Both of these methods have serious drawbacks and, in some instances, are totally inadequate.

The new stabilizer holds the head steady, allows the patient to breathe and swallow normally, and gives the dentist safe access to the mouth for the required periods of time.

The apparatus consists of a padded adjustable helmet and shoulder pads worn by the patient. Movement of the head is counteracted by machinery powered by compressed air and operated through modern control systems technology.

A dentist or hygienist can set the equipment to the desired head position by adjusting a control panel. If the patient's head moves, electronic relays and pneumatic cylinders are activated to return the head to position.

Further adjustments can be made to assure steadiness. However, in case of discomfort, the patient can stop the pressure instantly by turning a special lever. This feature increases the patient's confidence in the device and induces relaxation of the neck muscles during treatment.

Permits X-rays

This is especially important when treating children. The apparatus also permits X-ray photographs to be taken without risk of the head moving.

Dr. Harris points out that the equipment can also be used to strengthen neck muscles and improve voluntary control of the head.

To accomplish this, the apparatus is adjusted so that it does not prevent the head from moving, but allows it to move slowly against a resisting force, as in weight lifting.

Regular practice of this type of exercise helps to strengthen weak muscles and improve head control. In this way children may overcome the lack of head stability which interferes with balance, walking, and developing perceptual skills necessary for the classroom.

This apparatus is still being tested clinically and is not yet available commercially.

Conference and New Publication Detail

Aquatic Pollutants and Biologic Effects

The National Cancer Institute, the National Institute of Environmental Health Sciences, the Smithsonian Institution, the Energy Research and Development Administration, and the Environmental Protection Agency co-sponsored the conference and the report.

Two Editors From NCI

Drs. Herman F. Kraybill and Clyde J. Dawe of NCI, Dr. John C. Harshbarger of the Smithsonian Institution, and Dr. Robert G. Tariff edited the volume.

Major sections of the conference and publication are concerned with Occurrence and Removal of Water Pollutants, Biological Effects of Pollutants, Neoplasms in Aquatic Animals, Biologic Effects on Marine Animals; Health Implications for Man; and Public Health Aspects: Regulatory Programs on Environmental Carcinogens.

"Aquatic pollutants have long been a matter of concern for biomedical scientists, public health authorities, and regulatory and legislative groups," states Dr. Kraybill in introductory remarks.

"This concern has been amplified on national and international bases because of observations in the last decade of the effects of these pollutants in waterways relevant to fish kills and of the reduction in fish and shellfish populations, resulting in a socioeconomic impact.

"Additionally, contamination of marine foods as part of the food chain presents another problem with respect to public health."

"The realization that neoplasms are occurring in finfish and shellfish and that a tumor incidence may appear to be associated with the extent of pollution introduces a new dimension for exploration as to the significance of such observations in terms of human cancer..."

A brown bullhead from Cedar Lake, Mich., bears a turban-shaped melanophora on the head. Dr. E. Louis King, Jr., fisheries biologist with a Department of the Interior laboratory at Millersburg, Mich., contributed the fish to the Registry of Tumors in Lower Animals, an NCI-supported project at the Smithsonian Institution, directed by Dr. John C. Harshbarger.

"Water and the aquatic environment represent one vector or route of human exposure to environmental carcinogens. Programs and projects need to be identified that relate to this important area..."

Copies of the 604-page conference report are available from the New York Academy of Sciences, 2 E. 63rd St., New York, N.Y. 10021.

ENERGY TIPS

Help save energy!

- Raise or open window blinds to take maximum advantage of natural daylight and the sun's warmth.
- Fluorescent lights use less energy. Determine which lights can be removed or not turned on to reduce lighting to a minimum level conducive for work.
- Turn off all lighting when leaving the room, even for short periods of time.
- Make sure all lights are off when occupants leave for the day.
- In offices that have drapes that can be closed, energy can be saved by closing the drapes when leaving the evening. Drapes act as efficient insulators for large glass areas.
Clearinghouse Established To Encourage, Assist Multiple Use of Scarce Primates

A mechanism has been established by NIH’s Animal Resources Program for encouraging and assisting in the “recycling” of nonhuman primates used as laboratory animals for biomedical research studies.

The Primate Supply Information Clearinghouse, operating under the University of Washington Regional Primate Research Center in Seattle, has been created for this purpose and will be operational by mid-January 1978. The project is supported by contract with the Division of Research Resources.

With the shortage of primates for laboratory use and the increasing cost of animal procurement, the Animal Resources Program recognized the need to encourage sequential and multiple use of the animals, and to effect direct and speedier communication between users through the newly created Clearinghouse.

Utilizing a computerized data base, the primates on the supply list and information will be transmitted to the biomedical research community by the issuance of a weekly Alerting Bulletin containing notices of availability of primates, or their tissues and body fluids, and notices of needs.

The overall purpose of the Clearinghouse is to make the best possible use of the available research primates in the country. Investigators and colony managers will be solicited and invited to list their animals available for transfer or to be shared. The Clearinghouse will also publish sources of supply for body fluids and tissues in addition to body organs of sacrificed animals.

It is also anticipated that investigators seeking animals or body fluids and tissues will file their needs with the Clearinghouse. In addition to the weekly Alerting Bulletin, the Clearinghouse will conduct a matching service by computer and will make referrals to possible users.

The data base collected may include species used, species bred, probability of animals available for sharing, and availability of social groups for behavioral studies.

“We are promoting and encouraging sequential use of primates,” says manager Maryeva Terry. “Some laboratories may have fully conditioned primates presently not being used because a particular study has been concluded.”

“These animals are sometimes maintained for long periods of time waiting for the next project to come along. They could be used immediately by other investigators, thereby making most efficient economical use of these primate animals.”

A user survey conducted in 1975 by Ms. Terry indicated that there was an overwhelming willingness on the part of the primate user community to cooperate on the contemplated service.

Service Is Free

The service will be available at no charge to both Government-supported researchers and scientists in private industry using primates in their work. Efforts will be made to localize this information in order that scientists be aware of potential laboratory animals available in their area. Particular emphasis will be made in reaching colony managers and managers of research organizations.

The initial mailing of Alerting Bulletin will be made to all clients currently on the mailing list of the Primate Information Center, the nationally known primate information service maintained by the Washington Center for over a decade.

In addition, mailings will be made to researchers and organizations on various mailing lists which are of primate research interest. Scientists using or having need for primates for research purposes may be put on the list upon request. Write to Primate Supply Information Clearinghouse, Regional Primate Research Center, University of Washington, Seattle, Wash. 98105, or call (206) 543-5178.
A vaccine to prevent bacterial meningitis caused by group A meningococcus has been shown to be effective in very young children, the National Institute of Allergy and Infectious Diseases recently announced.

During a recent epidemic of group A meningococcal meningitis in Finland, investigators noted that 5-year-old children who received the vaccine involving approximately 150,000 Finnish children, no cases of group A meningococcal meningitis were observed among the more than 70,000 children who received the vaccine. Furthermore, there was no evidence of serious side effects from the vaccine.

Testing of the group A meningococcal vaccine in Finland was prompted by an epidemic that began there in 1973.

The outbreak was further complicated by the fact that the bacterial strain responsible for the meningitis was resistant to sulfadiazine and the class of antibiotics used routinely in the prevention of the spread of this infection.

The study—partially supported by a NIAID contract—was conducted by Dr. P. Helena Mäkelä and her associates at the Central Public Health Laboratory in Helsinki, Finland.

**Study Reported in Journal**

Vaccine was supplied by Merek, Sharp and Dohme, West Point, Pa. A report on the study appears in the Sept. 29 issue of *The New England Journal of Medicine*.

In future studies, Dr. Mäkelä and her group plan to follow up the meningococcal A vaccinated children and to determine effective booster doses for the meningococcal A and *H. influenzae* vaccines.

The group A meningococcal vaccine was an outgrowth of the highly successful group C meningococcal vaccine developed by Drs. Emil Gotschlich and Malcolm Artenstein at the Walter Reed Army Institute of Research.

The group C vaccine significantly reduced the incidence of meningococcal meningitis among military recruits.

Vaccine research efforts in bacterial meningitis—many of which are supported by contracts from NIAID—are currently focused on the development and testing of effective preparations in infants and young children.

**Commercial Vaccines Licensed**

To date, the only commercially available meningococcal vaccines are for meningococcal types A and C. These vaccines are licensed for use in adults during epidemics and for individuals planning to travel in areas experiencing epidemics.

In the event of a large outbreak, the group A vaccine can also be administered to school-aged children (those above six).
Gorgas Medal Awarded
To Dr. Purcell of NIAID

Dr. Robert H. Purcell, head of the Viral Hepatitis Section of the Laboratory of Infectious Diseases, National Institute of Allergy and Infectious Diseases, was recently awarded the Gorgas Medal for 1977 by the American Association of Military Surgeons.

Cited for Hepatitis Research

This medal is presented annually for "distinguished work in preventive medicine" and Dr. Purcell was given the honor for his outstanding contributions to the development of methods for detecting and preventing viral hepatitis.

Dr. Purcell has made many contributions to the study of viral hepatitis and his accomplishments have made him an internationally recognized authority.

His leadership of research teams attacking the various aspects of this major public health problem has led to the development of prototype vaccines for hepatitis B, and to visualization of the virus causing hepatitis A—a first step toward prevention.

Other Agents Transmitted

Recently, Dr. Purcell and his colleagues have presented evidence that in addition to hepatitis B virus at least one other hepatitis viral agent (non-A non-B) can be transmitted by blood transfusions.

A graduate of Oklahoma State University in 1957, Dr. Purcell received his M.D. degree from the University of Chicago in 1962 and since that time has held various teaching posts, including instructor of neurochemistry of the nervous system and the effects of toxic chemical agents on that system.

Mrs. Margaret Jay (I), wife of British ambassador Peter Jay, stops for a chat with NIH Director Dr. Donald S. Fredrickson and Dorothy Horlander, FIC, during a recent tour of the Clinical Center. Of special interest to Mrs. Jay were the pediatric care facilities.

Utah Researchers Trace Natural History Of Recurrent Cold Sores, Test Drugs

The natural history of recurrent herpes simplex labialis (cold sores) has been precisely defined by investigators at the University of Utah. This information will now be used to evaluate the effectiveness of a promising antiviral drug called adenine arabinoside 5'-monophosphate (ara-AMP).

Although herpes simplex labialis infections tend to be mild and self-limiting, they can be severe and even disfiguring. So far, no consistently effective treatment has been found.

The variable nature of this infection among different persons, and even in the same person during different episodes, has made it difficult to measure accurately the effectiveness of potential therapeutic agents.

The study showed that some of the clinical and virologic measurements used in the past were too variable or indistinct to be of real value in determining lesion severity. For instance, time to crusting of the lesion was not as clearcut a measurement as were time to loss of crust, time to complete healing, and intensity and duration of lesion pain.

The most sensitive virologic measurement proved to be the titer-hour area—defined by the lesion virus titer and duration of virus excretion.

Saliva virus titers, used in the past, were found to be unreliable indicators of lesion status.

The study also showed that viral replication is not yet maximum when the lesion appears. Thus, effective treatment applied within a few hours of onset could reduce viral replication and alter the course of the infection.

The drug ara-AMP, which will be used in clinical studies of herpes simplex labialis, is a derivative of ara-A. Ara-A has been effective against life-threatening herpes infections in placebo-controlled trials. The work is supported by a contract and research grant from the National Institute of Allergy and Infectious Diseases and a contract with the National Institute of Dental Research.

Note: Off-Campus Call Local Emergency Numbers

The new emergency numbers listed for use with the CENTREX system (116—NIH Police, and 116—Fire/First Aid/Ambulance) apply only for on-campus emergencies. Persons in campus residences and apartments will receive special instructions.

Persons in off-campus buildings should use the standard emergency number (9/911) to request local aid.

According to telephone officials, NIH's switchover to CENTREX is the most successful as well as the largest such change they have handled.

New telephone directories arrived on time and were distributed by NIH mailrooms, which may be contacted if copies were not received.

Dr. Damstra Receives 'Woman of the Year' Award in Durham

Dr. Terri Damstra, a biochemist in the Office of Health Hazard Assessment, National Institute of Environmental Health Sciences, has been selected as "Woman of the Year" by the ENO Business and Professional Women's Club in Durham, N.C.

The award was presented in appreciation of Dr. Damstra's exceptional qualities of leadership and integrity and her distinguished achievements for the betterment of her community.

In nominating Dr. Damstra for the award, Dr. David P. Rall, NIEHS Director, cited her significant contribution to a better understanding of the functions of the nervous system and the effects of toxic chemical agents on that system.

Dr. Damstra received her Ph.D. degree from the University of Chicago in 1969, and since that time has held various teaching posts, including instructor of neurochemistry at the University of North Carolina from 1973 to 1975.

She received an Outstanding Teacher Award from the University of Wisconsin, as a graduate teaching assistant for 2 years. Dr. Damstra is the author or co-author of numerous scientific articles in neurochemistry and the toxicology of the nervous system.


Voting ballots for representation to the R&W for 1978 have been sent to R&W members. Any member who has not received a ballot for the Dec. 15 voting should contact his or her B/J/D executive officer.

Please vote!