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National
Institutes
of
Health

Happy Holidays to Everyone

Season's greetings to all from *The NIH Record* staff and sincere wishes for healthy, happy, and safe holidays.

This is the last issue in December. The next *Record* will be published Jan. 7, 1981.



31 Employees Honored By NIH Director

In recognition of "superior performance or special efforts significantly beyond the requirements of regular duties," 31 persons have been honored by NIH Director Dr. Donald S. Fredrickson.

Dr. Fredrickson presented the NIH Director's awards in a ceremony held in the Masur Auditorium on Dec. 1. (See pages 8-9.)

The First United States Army Band played for the ceremony.

Major changes were made in the NIH Director's award this year: all NIH employees were eligible to receive the awards, and anyone was permitted to nominate an employee.

Also, the award was allowed to be presented to other than current NIH personnel under exceptional circumstances. □

NHLBI Receives Lasker Public Health Award; Four Grantees Win

The Albert and Mary Lasker Foundation of New York recently presented a public health award of \$15,000 to the National Heart, Lung, and Blood Institute in recognition of a 5-year study of more than 10,000 men and women, most of whom had high blood pressure.

The Lasker Foundation cited the NHLBI study as a "monumental landmark," in understanding a disease that affects millions of Americans. The study, called the Hypertension Detection and Follow-up Program, showed that substantial reduction in strokes, heart attacks, and deaths from heart disease could be achieved through proper care of patients suffering from even mildly high blood pressure.

Improved diet, drug therapy, and other health care practices are employed according to the patient's needs. Dr. Robert I. Levy, NHLBI Director, accepted the award.

Three current NIH grantees—one of whom is a 1980 Nobel laureate—and a sci-

entist who received past support from the National Institute of General Medical Sciences are winners of the Lasker Award for their basic research contributions to development of recombinant DNA technology.

The four scientists, who will share the \$15,000 award, are Drs. Paul Berg, Stanley N. Cohen, and A. Dale Kaiser of Stanford University, and Dr. Herbert Boyer of the University of California at San Francisco.

Dr. Berg Shares Prize

Dr. Berg shared this year's Nobel Prize in Chemistry with Dr. Walter Gilbert, another NIGMS grantee, and Dr. Frederick Sanger, a British scientist.

Dr. Berg's studies on the mechanisms and regulation of gene expression have been funded by NIGMS since 1966. His work on viral tumorigenesis has been supported for the past 6 years by the National Cancer Institute. (See *LASKER AWARD*, Page 4)

France's Griffuel Award for Cancer Research Is Presented to Dr. DeVita

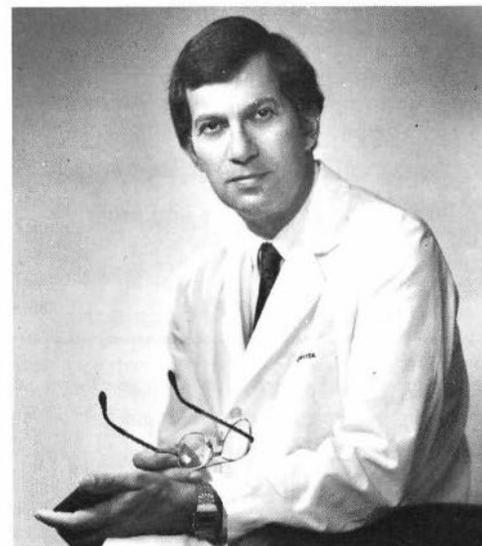
France's prestigious Griffuel Award for outstanding achievement in cancer research is being given this year to an American researcher, Dr. Vincent T. DeVita, Jr., Director of the National Cancer Institute.

The prize is awarded annually by the Association for the Development of Research on Cancer, Villejuif, France.

Jacques Crozemarie, association president, presented the prize of 180,000 French francs (approximately \$41,000) to Dr. DeVita at a ceremony held in the UNESCO building, in Paris, on Dec. 4.

Dr. DeVita was honored for his contributions to cancer chemotherapy, and the significant role he played in developing MOPP therapy, a combination of drugs that have dramatically lengthened the survival rate of patients with Hodgkin's disease.

In 1964, fewer than 10 percent of those with Hodgkin's disease survived 5 years. Today, almost 70 percent of patients with advanced Hodgkin's disease who receive (See *DR. DEVITA*, Page 15)



During his research career, Dr. DeVita has also received the Lasker Medical Research Award.

The NIH Record

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NLM's Holiday Hours Begin

For the Christmas and New Year's holidays, the operating hours for the National Library of Medicine have been changed to:

Wednesday, Dec. 24, 8:30 a.m.-5 p.m.
Thursday, Dec. 25, Closed
Friday, Dec. 26, 8:30 a.m.-5 p.m.
Saturday, Dec. 27, Closed
Wednesday, Dec. 31, 8:30 a.m.-5 p.m.
Thursday, Jan. 1, Closed
Friday, Jan. 2, 8:30 a.m.-5 p.m.
Saturday, Jan. 3, 8:30 a.m.-5 p.m.

The NLM's regular hours for 1981 will be 8:30 a.m. to 9 p.m., Monday through Friday; on Saturdays from 8:30 a.m. to 5 p.m.; and closed on Sundays.

Training Tips

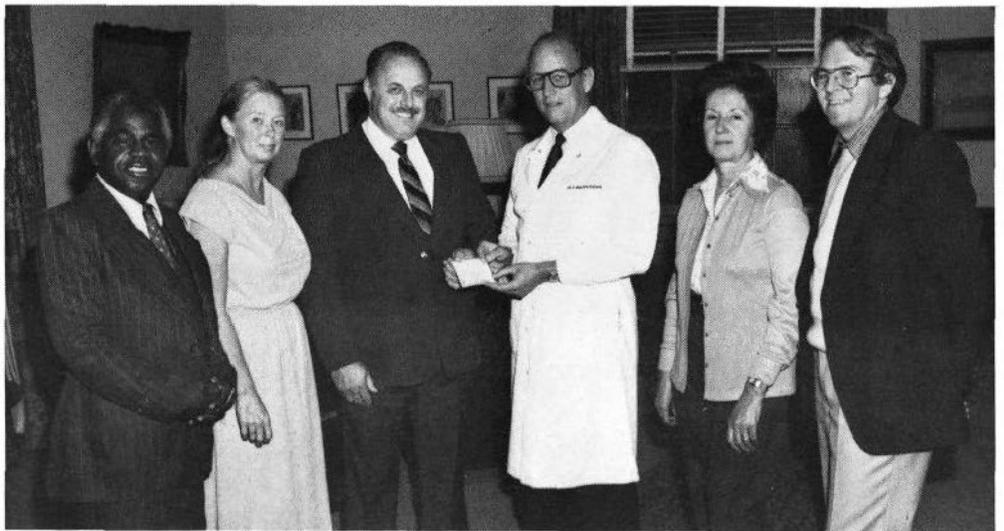
The following courses, sponsored by the Division of Personnel Management are given in Bldg. 31.

Communication Skills	Course Starts	Deadline
Report Writing	1/14	12/11
Voice and Diction	1/5	12/17
Office Skills		
Basic Mag Card II	12/22	12/10

To learn more about these and other courses in office and communication skills, contact the Training Assistance Branch, DPM, 496-2146. □

'Coping with Holiday Blues' Program Is Dec. 12

The Employee Assistance Program of Occupational Medical Service is presenting a special program on how to cope with holiday blues, Friday, Dec. 12 between noon and 1 p.m., in Bldg. 31, Rm. B2C-06. Contact Morris Schapiro, 496-3164. □



The 1981 R&W Association membership drive begins with the traditional presentation of a membership card to NIH Director Dr. Donald S. Fredrickson (c-right). R&W president Jerry Stiller (c-left) and other members of the executive board (l to r)—Maurice Miles, Agnes Richardson, Margaret Thompson, and Randy Schools—took part in the presentation. NIH employees who join in December will save \$1 off the regular \$3 membership fee. Cards can be obtained at the R&W Association's activities desk in Bldg. 31, at all R&W stores, or through B/I/D representatives.

CC Patient Emergency Fund Short of Donations Now

This year's annual Patient Emergency Fund Christmas Drive urgently needs donations from NIH employees. The fund, which is entering its 20th year, is short of money.

The PEF, administered by the CC Social Work Department, assists patients with financial aid that cannot be met with Federal appropriations.

Although CC patients receive cost-free medical care, the high cost of living in this area may create a financial strain for family members.

A contribution can make an enormous difference in the lives of patients and those who support them while they are at NIH

being treated.

If everyone would give a dollar at Christmas time, next year's needs could be met.

Contributions can now be accepted at the R&W Association's activities desk, Bldg. 31, Rm. 1A-18, and at all R&W Gift Shops. Gifts can also be sent to the CC Social Work Department, Bldg. 10, Rm. 7D-53, or call 496-2381 for more information.

Already, the R&W Association has helped out with a check for \$3,000. In addition, CC nurses, doctors, and others close to the situation have dug down into their pockets and given. □

Holiday Festivities Planned for CC Patients

To make the holiday season as festive as possible, the Clinical Center staff—with a special assist from the Patient Activities Department—plan a variety of activities.

Last week, a shoppers' spree at White Flint Mall initiated the round of festivities.

These include a trip to visit Santa at Montgomery Mall, a chapel carol service, and a holiday concert of traditional and seasonal music.

Dec. 17 is a full day. On the agenda for

that date are tree-trimming, a children's Christmas party, and a holiday dance.

The following afternoon, Santa will greet patients and the CC staff at the annual patient open house.

Trips to the Washington Cathedral and to view the National Christmas tree and community lights are planned as well as Christmas Eve caroling and a Welcome '81 party.

As usual, bingos and feature films will be offered throughout the holiday season. □

January 9 Is Deadline for Spring STEP Program

The application deadline for four modules being offered this spring through the Staff Training in Extramural Programs (STEP) is Jan. 9.

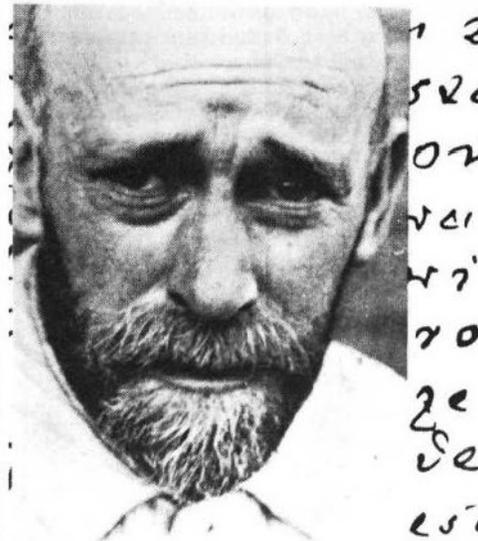
The modules are Improving Interactions between the NIH and Grantee Institutions, Mar. 25; Politics of Health: 1981, Apr. 9-10; Program Administration and Grants Management: A Team Concept, Apr. 22-23; and Introduction to the Extramural Programs, May 7-8.

STEP modules are designed primarily for health scientist administrators and management staff concerned with grant and contract programs. While enrollment preference is given to personnel in the extramural programs, applications received from other NIH employees will be considered.

For further information, contact Arlene Bowles, 496-1493, Bldg. 1, Rm. 209. □

'Who Was This Man?' Exhibit Opens at Library

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Dr. Korczak

There is currently an exhibit in the NIH Library's display case at the Clinical Center entitled "Who Was This Man?" The exhibit is about Dr. Janusz Korczak, a Polish-Jewish physician, educator, and humanitarian, who perished in the Treblinka concentration camp in 1942 along with 200 orphans that he had cared for in the Warsaw Ghetto. His life's work is now receiving international recognition.

Dr. Korczak was a humane and progressive innovator in child rearing and development, and at one time headed Poland's orphanages. He devoted his life to the concept of respect and justice for all children. A tenet of his philosophy is that the future of mankind depends upon the inculcation of basic moral and ethical principles.

It is only recently that his ideas have been available in English-language editions. His diary was translated by Dr. Edwin P. Kulawiec, professor of education at Georgetown University, and a delegate to the International Korczak Society that will meet in Tel Aviv on Jan. 15, 1981. Dr. Kulawiec donated the materials from his own collection for the exhibit, which was prepared by Hilda Gruskin, an NIH Library staff member.

The years 1978 and 1979 were inscribed in the UNESCO calendar of international celebrations as the years of Dr. Janusz Korczak. In May 1978, the Korczak year was officially inaugurated at Poland's Palace of Ministers in Warsaw, where representatives from 11 nations participated in the ceremonies, adding to Dr. Korczak's growing international recognition since his death.

The exhibit will be on display for the next 2 months at the NIH Library lobby. □

Irv Goldberg Says '30' to Outstanding Career As Health Communicator

With the stroke of a pen, Irving (Irv) Goldberg wrote "30" to his long career as a Government information specialist and health communicator. Irv, Director of the Division of Public Information, Office of Communications, OD, since July 1970 will retire Dec. 12 after more than 35 years of Federal service.

Led Information Effort

In that capacity, Irv directed and coordinated NIH public information programs and activities, and provided staff advice to the Office of the Director, NIH, and information liaison with PHS/HHS and constituent agencies.

During his career in Government information, Irv served in numerous information and advisory capacities with the HHS, PHS, and NIH, beginning in 1947 as a member of the staff of the legendary Dr. Joseph W. Mountin, Associate Chief of the Bureau of State Services, PHS. He later served as acting information officer of the Bureau.

From 1953 to 1965, Irv was deputy to the late Stewart Hunter, Assistant to the Surgeon General for Information. He then became staff assistant to HEW Secretary John W. Gardner, and acting public affairs assistant to HEW Secretary Wilbur J. Cohen.

Prior to joining NIH, Irv was Associate Director for Print Media, Office of Public Information, HEW.

In retirement, Irv plans to spend winters in Boca Raton, Fla., and summers in this area. Not one to confine his retirement to his two favorite pastimes—bridge and sunning on the beach—Irv intends to keep active in the writing field, specializing in medical and health-related topics.

To help him in this latter endeavor, his many friends and co-workers presented him with a portable electric typewriter at a retirement party held in his honor on Dec. 5 at the National Naval Medical Center Commissioned Officers Club. Other gifts presented to Irv included a signature card, appropriately illustrated, and signed by well wishers.

Among those attending the party were former NIH Deputy Director, Dr. John F. Sherman, former Surgeon General Leonard Scheele, former Deputy Surgeon General

W. Palmer Dearing, and former NIH Associate Director for Program Planning and Evaluation, Dr. Thomas J. Kennedy, Jr.

Although unable to attend, former Surgeon General Luther L. Terry, wrote "Irv, you know that Janet (Mrs. Terry) and I have been some of your greatest admirers for many years. We have appreciated your expertise and the contribution which you have made to the success of the Public Health Service. When I was Surgeon General, you were absolutely magnificent. I do appreciate all you did for me . . . Janet and I wish you great happiness and success in your retirement." □



Mr. Goldberg plans to continue science writing in his retirement.

Entertainment at the party, attended by more than 100 co-workers, former associates and friends, was provided by Hod Ogden and Storm Whaley. Hod is the only remaining HHS member of the Ad Hoc Players, a group that he and Irv co-founded more than 20 years ago.

Founder of Ad Hoc Players

The Players, a group of blithe spirits who deflated many a dragon at Governmental and non-Governmental affairs, included Stu Hunter and Johannes Stuart along with Irv and Hod. Irv says that the Ad Hoc Players are his only claim to fame. □

NIH Tops Previous Donations to Combined Fed'l Campaign

NIH Combined Federal Campaign keyworkers have collected more donations this year, \$230,060, than in any previous campaign, but as of Nov. 28 were just short of achieving their goal.

NIH has reached 97 percent of its goal of \$238,000, with 4,642 or 36 percent of all NIH employees participating. Final figures will be published in the next issue of *The NIH Record*.

The National Institute of Environmental Health Sciences, which participates as part of the Research Triangle Park, N.C. Federal

Campaign, reached 11 percent of its dollar goal, or \$14,446 and achieved 42 percent participation.

The credit for this year's success belongs to the key people, coordinators, and the participation and generosity of the NIH employees who made a successful campaign possible, according to campaign officials.

John Smart, campaign coordinator said, "I am personally grateful to all of NIH for proving once again that helping and giving is an NIH tradition." □

Data Logger Device Records Info. on Reusable Tape

Data collecting by hundreds of NIH radiation (scintillation) counters is now being simplified by a recording instrument developed at the Division of Computer Research and Technology.

The device, called a data logger, is easy to use, quiet, reliable, and completely eliminates the need to read and store data on endless yards of paper tape.

The logger records the data on a reusable magnetic tape cassette. A separate playback device relays the data to the central NIH computer (or to a local computer) up to 12 times faster than paper tape. Special software programs can then be implemented to analyze the data automatically.

Dr. Ramon Tate, a former microbiologist, but now a DCRT computer specialist, helped develop the prototype logger in 1977 in response to NIH researchers' requests for help in managing their laboratory data.

At NIH, more than 40 of the CSL data loggers are successfully recording data gathered from radio-immunoassays and radioreceptorassays. These assays identify substances (such as hormones and their receptors) that have been radioactively labeled.

Raw data thus collected is voluminous. In the past, data was read from paper tapes, manually transcribed, or tediously reduced by hand.

According to Dr. Susan Hauser, electronics engineer and leader of the CSL data logger project, the logger is connected between the radiation counter and its normal output device, and it does not affect the operation of either. One cassette tape can record approximately 2,000 lines of data and is reusable after the data has been processed by a computer.

A companion playback device, which must be purchased separately, is used to read the data into a computer. The playback device costs about \$2,000, but it can support many data loggers. Those interested in obtaining a data logger may contact Dr. Susan Hauser, DCRT, Bldg. 12A, Rm. 2015, or 496-9343.



Dr. Hauser displays the compact data logger developed at DCRT. The device is now available for use with radiation counters.

LASKER AWARD

(Continued from Page 1)

Dr. Cohen currently holds two grants from NIGMS, one dealing with the replication and transfer of bacterial plasmids and the other with gene expression in heterospecific environments.

Dr. Cohen has also received NIAID support for the past 13 years. Drs. Cohen and Chang took DNA from a eukaryotic source of a prokaryote, *Escherichia coli*, a South African frog, and successfully placed it in the plasmid where it replicated, part frog and part *E. coli* plasmid. This was the first piece of research of this type and represented an important advance in recombinant DNA technology.

Cell Communications Studied

Dr. Kaiser is in his fourth year of NIGMS support. His research on the control of multicellular development in myxobacteria is directed toward gaining an understanding of the molecular basis of communication between cells.

Dr. Kaiser was also previously supported by NIAID. His work then was on an enzyme (ligase) which served as an annealing agent with which a piece of foreign DNA can be "sutured" into a bacterial plasmid. This represented an important advance in genetic engineering.

Dr. Boyer's work on host-controlled modification and restriction of DNA was supported by NIGMS from 1967 to 1975. □

USDA Graduate School Has Courses To Improve Job Skills or To Pursue New Interests

The USDA's Graduate School schedule of 1981 winter quarter courses is now available.

Hundreds of day, evening, and correspondence courses will be offered this winter and are open to all those interested in improving job skills or pursuing new interests.

Some new courses are: Productivity: A Management Problem; Great Decisions; Introduction to Technological Media (Audio-Visual Materials); Introduction to On-Line Data Base Search Techniques; and Consumer Law.

Other subjects in the school's extensive curriculum include procurement, public affairs, editing, computer science, paralegalism, management, accounting, journalism, communication, foreign languages, personnel administration, secretarial skills, and many more.

Liberal studies include: Home Renovation; Workshop in Career Planning and Job Hunting; and Stress Management Through Creative Problem-Solving.

Mail registration ends Dec. 17. In-person registration will be Jan. 5-10, 1981.

For information, class schedules, and the new 1980-82 Graduate School, USDA Catalog, visit Rm. 265-A, National Press Bldg., 529 14th St., N.W., Washington, D.C., or call (202) 447-4419. □

David E. Anderson, Foreman, Retires After 28 Years

David E. Anderson, equipment specialist in the Maintenance Engineering Branch, Division of Engineering Services, retired in October after completing 31 years of Federal service, over 28 of those years at NIH.

Mr. Anderson came to NIH in 1952. During his early years in DES, he served as a refrigeration mechanic in the mechanical shop, Shops Branch, and later advanced to the position of foreman.

In 1961, he was transferred to the Office of the Chief, MEB, where he served on numerous projects: dealing with the underground utility distribution systems, the waste water treatment plant of the NIH Animal Center, and many others.

During World War II, Mr. Anderson spent 3 years in the U.S. Navy.

In retirement, he plans to spend time farming, hunting, and fishing in his native northwestern Pennsylvania.



Fellow employees from NIH and HHS attended Mr. Anderson's farewell luncheon.

Urinary Infection Brochure Explains Proper Management

An estimated 8.2 million visits to physicians each year are for infections of the urinary tract. Of these, 6.7 million visits are made by women, 1.5 million by men.

These infections are among the most frequent causes of absenteeism in working women, and are second only to absences from upper respiratory infections.

Proper management of the disease is critical because the bacteria that invade the urinary tract can cause serious damage to the kidney, which may sometimes lead to kidney failure.

The National Institute of Arthritis, Metabolism, and Digestive Diseases, under the auspices of its Kidney, Urology, and Blood Diseases Program, has recently published a brochure on the symptoms, diagnosis, causes, and treatment of urinary tract infections.

Copies of *Understanding Urinary Tract Infections* are available from the NIAMDD, Bldg. 31, Rm. 9A-04, 9000 Rockville Pike, Bethesda, Md. 20205; (301) 496-3583. □

New Breast Cancer Survey Finds Increase In Understanding of the Disease

A national survey shows that public understanding of breast cancer has increased considerably over the past 7 years.

Ninety-six percent of women questioned had heard of the early detection technique of breast self-examination, compared to 77 percent of women surveyed in 1973.

Women who are taught breast self-examination by a doctor are more likely to practice it than women who learn the technique in other ways, the study shows.

This improves prospects for a downturn in deaths from breast cancer, said Dr. Vincent T. DeVita, Jr., National Cancer Institute Director. But survey findings also suggest a need for further public education about the disease.

About 40 percent of the women—10 percent more than the 1973 American Cancer Society survey—say they use the technique monthly or more often, which is a practice that both NCI and the ACS recommend. Studies also suggest that women practicing BSE detect cancer earlier than they would otherwise.

The survey was conducted in the fall of 1979 by Opinion Research Corporation of Princeton, N.J. Personal interviews were used among a national probability sample of 1,580 adult women in the United States and 720 spouses or partners. Additional samples of black and Hispanic women also were interviewed.

Seventy-six percent of the women said cancer is their most serious health concern, with more than half saying that breast cancer is the most worrisome of all cancers. Concern about cancer far exceeded concern about other health problems, such as stress, reported by 7 percent, and high blood pressure, reported by 6 percent.

Breast cancer is the number one cancer

killer of women, with about 110,000 new cases and about 37,000 deaths expected in 1981. It is the leading cause of death for women between the ages of 40-44. Approximately 1 of every 11 women is expected to develop breast cancer at some time during her life.

Respondents were more aware of influential risk factors such as age, especially being over 50, and having a family history of breast cancer. However, 50 percent of the respondents incorrectly believed that a bump or bruise to the breast can cause breast cancer.

The NCI survey showed that 61 percent of the women knew of X-ray mammography, an 18 percent increase in awareness since 1973. Few, however, had heard any negative publicity about mammography, such as risk from exposure to X-rays. Nineteen percent of respondents reported having had a mammogram.

Women Want to Decide

Dr. DeVita said the study indicates that many women want to play a more active role in decisions affecting their health. "Fifty-five percent said they would not give their doctor consent to remove a breast immediately following surgical biopsy if cancer were discovered.

"Instead," Dr. DeVita said, "they prefer to make the decision about cancer treatment in two stages. Furthermore, 90 percent said they would seek a second medical opinion."

An interval between a diagnostic biopsy and beginning of treatment allows time for a second medical opinion, exploration of alternative treatments, and emotional preparation if mastectomy is needed.

The survey showed women are aware that different treatments are available, and that nearly all believe there has been substantial progress made in treating breast cancer in the past 10 years.

In the samples of urban black and Hispanic women, 53 percent of black women report practicing breast self-examination once a month or more, compared to 24 percent of Hispanic women. Black and Hispanic women were generally less knowledgeable about the disease and its treatments.

Overall, younger women, tended to be more knowledgeable about breast cancer and consider it more of a threat to their health than older women.

The survey suggested that men could play an important role in dealing with the disease. Those men most knowledgeable about breast cancer were found to have wives or partners who are the most thorough in breast self-examination.

Dr. DeVita attributed the increase in public understanding of breast cancer to several factors. Among these were: the mastectomies of two nationally known women, Betty Ford and Happy Rockefeller, who received widespread media coverage. Public awareness of the disease jumped.

As breast cancer survival rates increased, medical controversies, such as the value and potential hazards of X-ray mammography, one-stage vs. two-stage diagnosis and treatment procedures, lesser surgery, chemotherapy and radiation treatments, and breast reconstruction received wide coverage by the news media.

"The survey tells us clearly that the public needs and wants to know more," Dr. DeVita said. "While much progress is being made in breast cancer treatment, we still are working toward an understanding of causes. Meanwhile, the key to optimal survival is education, early detection and prompt, appropriate medical intervention."

For further information, contact the NCI Office of Cancer Communications. □



NIH biologists Geraldine T. Carver (c) and Hayes W. Brown (l) received awards for their high technical performance in developing an ultrastructural/biomedical approach to the cellular toxicity of metals. Work-group leader Dr. Bruce A. Fowler congratulates Ms. Carver and Mr. Brown for the quality of their work which has helped the renal intracellular function, and toxicology work group.

R&W Offers 1981 Ski Trips

The NIH Ski Club, sponsored by R&W Association, recently announced its 1981 schedule:

Killington, Vermont—Feb. 21-27; \$389 price includes lodging at the Chalet Killington, lifts, 5 days of lessons, breakfast and dinner, and rail transportation.

Mont Tremblant, Canada—Mar. 8-14; \$497 price includes lodging, 7 days of lessons and lifts, air transportation, and three meals per day.

Aspen, Colo.—Feb. 14-21; \$579 price includes lodging, air fare, and 6-day lift tickets.

Blue Knob weekend—Feb. 6-8; price from \$90 includes transportation, lodging, meals, lessons, and equipment.

Camelback and Shawnee in the Poconos—Mar. 6-8; price from \$94 includes lodging, meals, lessons, and transportation.

Deposits are required for Killington and Mt. Tremblant by Dec. 15, others by Jan. 5. For further information, contact June Heyman in the R&W office, 496-6061. □

Mutation Detection Technique Perfected By NIEHS Scientists

A new technique for detecting mutation in living cells has been developed by scientists at the National Institute of Environmental Health Sciences. The test could provide the means for identifying the effects of human exposures to toxic environmental agents.

Mutation is a change in the molecularly coded messages in the DNA molecule of each cell. Every coded message is necessary for perfect replication of replacement cells and new messages used in reproduction.

Usually mutation is a statistically rare event occurring naturally in only one cell in millions. It can be fatal or biologically harmful to the single cell or developing embryo that happens to inherit the mutated DNA.

For instance, a degree of spontaneous mutation can be caused by natural radiation. However, some man-made chemicals can also cause an increase in mutation incidence and these have been detected by microbe culture screening tools.

Mutation detection in higher animals had before been difficult because a "marker" trait attributable to a single gene could not be identified. The NIEHS scientists, however, feel that their new technique accomplishes this.

The ability to precisely detect mutation is significant because it will enable researchers to distinguish the correlation between chemicals and agents causing cancer from those causing mutagenicity, as seen through microbe tests.

The technique was developed mainly by Dr. Aftab S. Ansari, with assistance from Drs. Masroor A. Baig and Heinrich V. Malting, chief, from the Laboratory of Biochemical Genetics.

For the procedure, the researchers used sperm from laboratory mice for a sample cell population and purified an antibody that would bind to a specific mutant protein but not to a normal protein. The mutant cells were then identified and counted by fluorescent antibody technique.

While testing the technique, the investigators used procarbazine, a drug known to cause mutation in spermatogonia, and found an increase in the frequency of fluorescently stained cells with increasing dose. The system can detect one mutant cell in a million normal cells.

The scientists concluded that "such a dose versus response relationship with a known mutagen is an indication that the 'stained' sperm have originated through mutation in sperm."

Their research results are to be published in the *Proceedings of the National Academy of Sciences*, 1980, titled, *An Approach to In Vivo Germinal Mutation Detection With 'Mono'-Specific Antibody Against Lactate Dehydrogenase-X*.

A conservative estimate for accurate correlation is 80 percent, and many scientists feel it could be higher. Therefore, dependable detection for mutagenicity could be another key to determining which agents cause cancer. □

Two New Members Join NIGMS Advisory Council

Two new members have been appointed to the National Advisory General Medical Sciences Council: Dr. G. Tom Shires, Lewis Atterbury Stimson professor and chairman, department of surgery, Cornell University Medical College, and Dr. Luther S. Williams, professor of biology and dean, Graduate School of Arts and Sciences, Washington University, St. Louis.

Dr. Shires, an authority in trauma and burns, has been a consultant since 1965 to the Surgeon General of the Army.

A member of many professional organizations, Dr. Shires is president-elect of the American College of Surgeons and past president (1979-80) of the American Surgical Association.

He also serves as associate editor of *Advances in Surgery* and is a member of the editorial boards of a number of professional journals.

Dr. Williams' research interests center on control of gene expression, microbial physiology, and molecular biology, and he is author of more than 40 publications in his field.

He has been a consultant to the NIGMS Director since 1972, and since 1974 has served as a consultant to the Minority Biomedical Support Program of the Division of Research Resources.

Dr. Williams is a former member of the HHS Recombinant DNA Advisory Committee and a current member of the National Research Council's Postdoctoral Fellowship Evaluation Panel. □

Marge and George Graham's Retirement Ends Over Half Century of Two Successful Careers



Marge (l) and George Graham (r) are joined by long-time friend from the G.P.O., Aaron S. Blauer.

Over 160 friends and relatives attended a retirement dinner held last month to honor George and "Marge" Graham, who retired from key posts in the Division of Administrative Services.

George Graham's Federal career spans 40 years. Since 1972, he has been the NIH

printing officer; prior to that, he was head of the Printing Unit.

Mr. Graham worked for 26 years at the Government Printing Office before coming to NIH. He began his printing career after graduating from the GPO Apprentice School as a journeyman printer. He held a

variety of positions there, and in his last post before coming to NIH served as technical advisor to the Accounting Division.

At NIH, he was instrumental in starting electronic printing. A successful copier management program and introduction of the copy center concept at NIH were developed by Mr. Graham. In addition, he established a structured training plan that permitted both plant and clerical employees to be promoted into managerial positions.

A member of many professional printing organizations, Mr. Graham is also one of 50 certified graphics communications managers in this country.

Marjorie Graham retired from the position of assistant to the DAS Director. She began her Federal career as a clerk-steno in DAS in 1962, gradually advancing in her career.

Her position involved her with overall management practices and Government regulations that included: a continuous review and evaluation of policies, staffing, functional conflicts resolution, and solving of internal problems.

The Grahams have been members of the NIH Toastmasters' Club for many years. "Marge" Graham has also served on the R&W Association's board of directors.

In retirement, the Grahams plan to travel, do volunteer work, and pursue hobbies. □

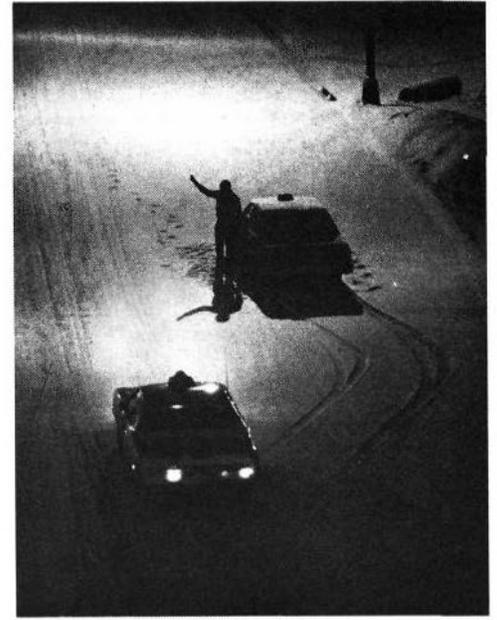
Camera Club Photo Competition Winners



Susan—1st Place B&W—C. Clark



Little Soldier—2nd Place B&W—K. Rhodes



Taxi—3rd Place B&W—C. Clark

More than 250 photographs taken by NIH amateurs were judged at the Fourth Annual Photo Competition held Tuesday evening, on Nov. 25, in Wilson Hall.

Color slides and prints, along with black and white photographs, were the three categories in which photographers could enter.

Many of those submitting work entered in several categories, and the quality of the entries made it difficult to judge.

The black and white photograph winners and those who received honorable mention are shown on this page, and the names and titles of other photographs in different categories are also listed.

The NIH Camera Club holds monthly meetings and competitions, usually on the second Tuesday of the month in Conf. Rm. 4, Bldg. 31, at 7:30 p.m. Their next meeting on Dec. 9 will feature Jerald Maddox, curator of photography at the Library of Congress, who will speak on the collection.

COLOR PRINTS (67 entries)

First	Barns in Black	John Boretos
Second	Green Lynx Spider	Chip Clark
Third	Scaling Ship	Morris Graff
HM	Matthew	Maggie Moore
HM	Kid Macho	John Macho
HM	Portland Head Light	John Cormack
HM	Peggy's Cove	John Cormack

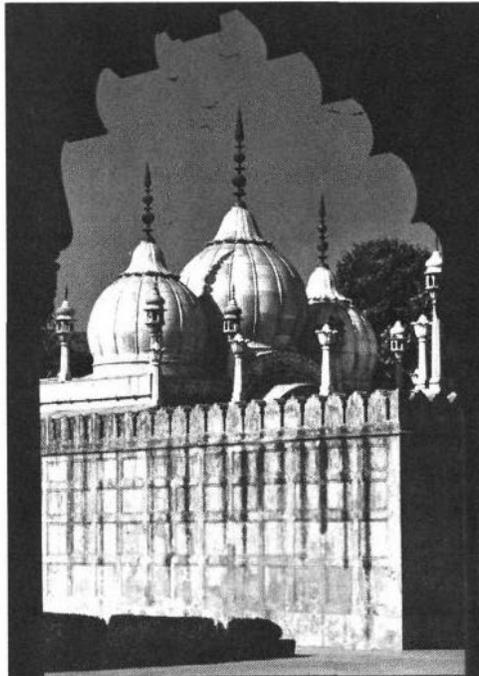
COLOR SLIDES (131 entries)

First	Mass	Chip Clark
Second	Sail Away	Tom Waldmann
Third	Smith at Rest	Tom Waldmann
HM	Tulips and Model T	John Boretos
HM	Seven Boats Afloat	Joy Richmond
HM	Tugboat Dock	Morris Graff
HM	Sand Print	Eric Long
HM	Margaret Davis	Untitled
HM	Big Sur	Peter Burrill
HM	Right and Left Mitten	John Boretos
HM	Greek Arch Patriarch of Jerusalem	Janet Bungay
HM	Jenney's Cove	David Prevar
HM	Cricket in Autumn	Tom Waldmann

Honorable Mention



Stairwell—HM—C. Clark



Delhi's Red Fort—HM—J. Boretos

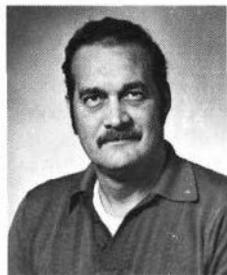


Portrait of Curiosity—HM—L. Gorden

NIH DIRECTOR'S AWARDS



Mr. Carter



Mr. DeKorte



Mr. Habel

OFFICE OF THE DIRECTOR

James V. Carter, motor vehicle operator, Office of Administration—"The Director's 'Ambassador of Good Will' in the service of all NIH."

Francis T. DeKorte, electrician, Division of Engineering Services—"Who brings us light and energy with dedication and superior technical skill."

Kurt Habel, chief, Program Planning Branch, Division of Program Analysis, Office of Program Planning and Evaluation—"For his key role in the highly useful research planning reviews and in developing principles for strengthening NIH's planning capabilities."

Gloria T. Riley, acting chief, Labor Management Branch, Division of Personnel Management—"For substantial contributions to NIH administration of labor contracts and for service as respected advisor to managers and union officials alike."

A group of three were honored:
Larry Bonner, consultant, work improvement, DMP—

Delores Dozler, EEO specialist, Division of Administrative Services—

Jerry E. Moore, management analyst, Division of Management Policy—

Each received the award "As a member of 'The Project Team' for wisdom and sensitivity in enlisting the enthusiastic support of staff in enhancing productivity and morale in the Printing and Reproduction Branch."

NATIONAL CANCER INSTITUTE

Ruth B. Gaston, biological laboratory technician, Laboratory of Biochemistry, Division of Cancer Biology and Diagnosis—"Whose reliable, efficient, accurate work as a laboratory technician has been critical to the success of research by leading NIH scientists over a 25-year period."

Janice Romanoff, administrative assistant, DCBD—"The Immunology and Cancer Centers Programs of the National Cancer Institute owe much to her extraordinary administrative and secretarial skills."

NATIONAL HEART, LUNG, AND BLOOD INSTITUTE

Annie R. Collins, public health educator, Office of Prevention, Education, and Control, Health Education Branch—"For creativity, sensitivity, and perseverance in leading the development of hypertension education and control efforts for minorities and the disadvantaged."

Lewis S. Pollack, chief, Contract Management Branch—"For insistence on maximum competition in the contract process and vigorous protection of the contract negotiation and award system for the NIH."



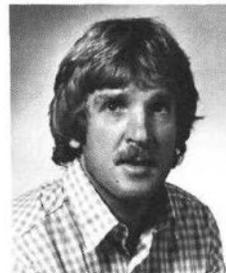
Ms. Riley



Mr. Bonner



Ms. Dozier



Mr. Moore



Ms. Gaston



Ms. Romanoff



Ms. Collins



Mr. Pollack



Ms. Lieberman



Dr. Salans



Dr. Loriaux



Ms. Bagley

NATIONAL INSTITUTE OF ALLERGY AND INFECTIOUS DISEASES

Rose Lieberman, research microbiologist, Laboratory of Immunology—"Who has earned international recognition for pioneering work in discovery and mapping of complex genes and the respect of colleagues at NIH for exceptional contributions as a scientist."

NATIONAL INSTITUTE OF ARTHRITIS, METABOLISM, AND DIGESTIVE DISEASES

Dr. Lester B. Salans, associate director for Diabetes, Endocrine, and Metabolic Diseases—"An articulate spokesman whose scientific insight and commitment to research on diabetes has enhanced and united that effort within NIH and among other Federal agencies."

NATIONAL INSTITUTE OF CHILD HEALTH AND HUMAN DEVELOPMENT

Dr. D. Lynn Loriaux, chief, Developmental Endocrinology Branch—"For admired leadership, ability as a teacher, and his genuine concern for patients and fellow workers."

NATIONAL INSTITUTE ON AGING

Shirley Bagley, health scientist administrator, Social and Behavioral Science Program—"Whose dynamic leadership, initiative, and professionalism were critical to the successful launching of the social and behavioral science programs of the NIA."

NATIONAL INSTITUTE OF DENTAL RESEARCH

Barbara Y. Iba, EEO specialist—"For effective service on numerous NIH-wide committees to foster equal opportunity and for essential contributions to development of the NIH Child Care Program."

Edith W. Mullen, chief, Contract Management Section—"Whose career at NIH is an example of sustained excellence, reflecting credit on her, NIDR, and the NIH."

NATIONAL INSTITUTE OF ENVIRONMENTAL HEALTH SCIENCES

Robert P. Cullen, assistant executive officer—"For creative contributions to administrative management support at NIH generally, and NIEHS in particular."

NATIONAL INSTITUTE OF NEUROLOGICAL AND COMMUNICATIVE DISORDERS AND STROKE

Dr. Nancy S. Wexler, health scientist administrator, Neurological Disorders Program—"For exceptional talents in developing a program to support research in Huntington's disease and related disorders in the innovative 'Centers Without Walls.'"



Ms. Iba



Ms. Mullen



Mr. Cullen



Dr. Wexler



Mr. Betts



Mr. Ferguson



Ms. Marshall



Mr. Moten



Ms. Truitt



Mr. Feldmann



Mr. Fajman



Mr. Brackett

CLINICAL CENTER

John H. Betts, elevator operator—"For cheerful assistance and outstanding service over 27 years to patients, visitors, and staff in the Clinical Center."

Jesse J. Ferguson, Jr., supervisory administrative technician, Admissions—"For dedicated service to patients in NIH care and for teaching, by personal example, his young co-workers important lessons in living."

Doris Marshall, head nurse, Unit 2B—"Whose able services as a professional and a preceptor have been critical to NIH in maintaining its role as the foremost innovator in cancer nursing."

Walter E. Moten, chief, Environmental Sanitation Control Department—"For leadership in instilling staff awareness and responsiveness in dealing with the complex problems brought on by the vast amount of construction within and surrounding the Clinical Center."

Linda Truitt, public information specialist—"For personally representing the NIH with intelligence, sensitivity, and unfailing courtesy in greeting and escorting the many individuals and groups who are our special guests at the Clinical Center."

DIVISION OF COMPUTER RESEARCH AND TECHNOLOGY

Richard J. Feldmann, computer specialist, Computer Center Branch—"For development of 'molecular graphics,' which has made it possible to see the unseen and to study the three-dimensional structure of biologically important protein molecules."

Roger Fajman, computer specialist, CCB—"The father of Wylbur—that ubiquitous, constant, and efficient servant that benefits researchers and managers in NIH laboratories and offices."

DIVISION OF RESEARCH GRANTS

Joseph A. Brackett, chief, Reports, Analysis, and Presentation Section—"For charting the complexities of the NIH grants programs with ingenuity and perseverance, enabling the NIH to maintain a steady course in uncertain times."

Barbara S. Bynum, assistant chief for special review—"Whose extraordinary skill in managing the peer review of sensitive and complex grant requests has served the imperative of scientific integrity."

DIVISION OF RESEARCH SERVICES

Roland Corsey, electronics engineer, Biomedical Engineering and Instrumentation Branch—"Whose concern for electrical safety has protected NIH patients and whose competence as an electronics design engineer is internationally recognized."

Kathleen I. Snowden, chief, Gnotobiotics Unit, Veterinary Resources Branch—"For outstanding performance in supervising a highly technical 'germfree' operation that serves intramural and extramural investigators and for her dedicated human services, particularly as counselor to handicapped employees at the NIH."

CHILD DAY CARE CENTER

Sherrie Rudick, director, NIH Preschool—"Who has made the NIH preschool a model by creating a loving, stimulating and secure environment for many children of NIH employees."



Ms. Bynum



Mr. Corsey



Ms. Snowden



Ms. Ruddick

Dr. Tsu Prescribes His Own Rx for a Long Life



Reverend Tsu participates in a lung experiment at the Gerontology Research Center.

Although vitamin E, gerovital, and cellular therapy have all been touted at one time or another as having potential anti-aging effects, their efficiency has not been scientifically proven. Meanwhile, Rev. Andrew Tsu prescribes his own Rx for longevity, "To be useful in whatever you do." The Reverend Tsu should know. He is 95 years old.

Before continuing his tests as a volunteer in the National Institute on Aging's Baltimore Longitudinal Study of Aging at



Dr. Tsu

the Gerontology Research Center, Reverend Tsu paused for a few moments to reflect on his life and personal philosophies.

"Life is heavy, time is heavy," said the smooth skinned nonagenarian who appears far younger than his chronological age.

"Occupy your life with usefulness. Make the most of it," he proclaimed, shaking a finger.

A native of China, Reverend Tsu now resides in Wilmington, Del. He came to America in 1909 and attended college in New York City.

After receiving his Ph.D. degree in social

sciences in 1912, he returned to China where he was ordained a Baptist minister. Dr. Tsu recalled some prejudices he encountered in the U.S. during his college days.

"One of the toughest things for me was to get a haircut back then," he said. Reverend Tsu explained that the Irish disliked the Chinese, and since most of the barbers in New York City then were Irish, they refused to serve him.

"I had to go all the way to Chinatown just to get my hair cut," he added, imitating a barber at work. "Can you imagine that?"

Reverend Tsu made certain to mention, however, that America has made great changes and progress over the years. "This is the land of opportunity," he remarked. One of his sons, he said, is minister of an all-white church in California. "Can you imagine that?"

In 1950, after nearly 40 years of ministry in his homeland, Reverend Tsu returned to the U.S. to retire. He keeps quite busy repairing broken jewelry for his lady friends at a Methodist retirement home in Wilmington.

In addition to "always being useful," Dr. Tsu's self-proclaimed formula for a long life is to follow a proper diet, to exercise, to live in a good environment, and to have friends. "These are the great secrets of time," he said in closing. □

Instrumentation Symposium Dec. 10-12

The NIH Instrumentation Symposium, sponsored by the Biomedical Engineering and Instrumentation Branch, Division of Research Services, will be held at the Masur Auditorium, Dec. 10-12, Wednesday through Friday, from 9 a.m. to noon and from 2 to 5 p.m. each day.

For programs (including abstracts of talks) or further information, call 496-5771. □

R&W Has Tickets for Many Events

R&W has tickets for the following events: *American Ballet Theatre* performs "The Nutcracker"—Kennedy Center; Dec. 26; ticket price, \$19.

Pinchas Zukerman, renowned violinist—Kennedy Center; Jan. 31; ticket price, \$10.50.

Order tickets at the R&W Activities Desk, Bldg. 31, Rm. 1A-18. □

First Black Belt Awarded To NIH Judo Club Student; Others Also Promoted

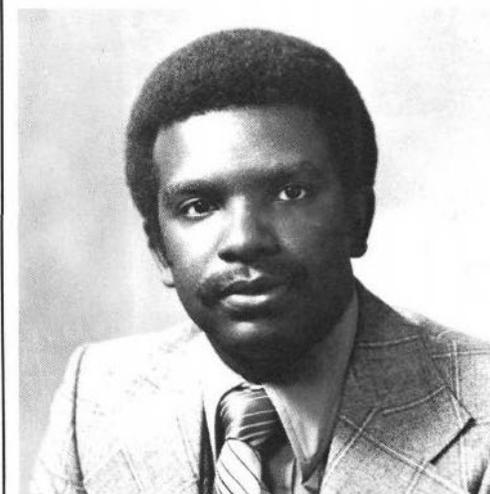
The NIH Judo Club has had a first among its members. Mark Dantzler, a long-time club member and judo student became the first member to have conferred upon him a first-degree black belt shodan by the U.S. Judo Federation.

Another club member promoted was Taffy Harrison, who qualified for a brown belt Ikkyu at the same promotion rounds held at Stephen Decatur Junior High on Nov. 7-8.

In October, other NIH Judo Club members were promoted at the Washington Judo Club in Alexandria, Va., to Gokyu or 5th degree student white belt: K.F. Chow, Mike Hazard, and M.J. Waxtal. Promoted to green belt or 4th degree student was Adam Schutz and Jim Slemp.

A beginner's judo class will start in January. For further information call Sue Stewart 496-5586. □

Dr. Donald Ware Selected As Harvard Macy Fellow



For his achievements as chief of NHLBI's High Blood Pressure Demonstration Program, Dr. Ware received a plaque of appreciation from the Black Hypertension Network.

Dr. Donald Ware has been selected as a Josiah Macy Fellow in Health Policy at Harvard University. The fellowship is part of the Foundation's program of awarding faculty scholar sabbaticals for recognition of academic excellence.

President of Student Association

Dr. Ware received his M.D. degree from the University of California, San Francisco, and his master's of public health from the University of California, Berkeley. While attending medical school he also served as president of the Student National Medical Association.

A medical advisor to the NHLBI High Blood Pressure Demonstration Program, he has been at NIH for 4 years. □

Christmas Holiday Concert Features Choral Groups

The annual holiday concert and Christmas carol sing, sponsored by the R&W Association, will be held on Wednesday, Dec. 17, beginning at noon in the Masur Auditorium.

The NIH Singers and the NIH Madrigal Singers will present a varied program of choral music, including portions of the Vivaldi "Gloria."

Following the concert, Ben Fulton will lead a carol sing-along.

This festive program is open to all NIH employees, patients, and guests.

For further information, call Dr. Lewis M. Norton, 496-6037. □

R&W Sponsors Antique Sale At FAES House Dec. 14 and 21

The Recreation & Welfare Association is sponsoring an exhibition and sale of gold jewelry, silver, gemstones, objects of art and miscellaneous antiques and collectibles offered at dealer prices at the FAES house (corner of Old Georgetown Road and Cedar Lane) on Sunday, Dec. 14 and Dec. 21, from 11 a.m. to 7 p.m.

In addition, there will be offerings of Japanese prints, estate jewelry, and oriental artifacts, including rugs.

The \$1 admission per adult, entitling the entrant to a free drawing for prizes, will be donated to the Patient Emergency Fund. □

Christmas Is No Holiday From Crime, Say Police

One way to avoid becoming a Christmas-time crime statistic is to follow the suggestions provided each year by the NIH Protection and Security Branch. To keep from being on a thief's Christmas shopping list:

- While out shopping, when you park your car, roll up your windows. Remove all attractive items that might encourage a thief to break in.

- Do not carry large amounts of cash.
- Do not leave house or automobile keys lying around where they might be stolen.

- Women should either carry their purses with them or place them in a locked cabinet or desk.

- Carry keys, wallets, and other small valuables on your person rather than leaving them in a coat on a rack.

- Transistor radios, televisions, tape recorders, and cameras should be kept under lock and key. These are popular items on any thief's list. Such items can be engraved easily with an owner's social security or driver's license number. An engraving tool is available at the R&W Association's Activities Desk, Bldg. 31.

- During working hours do not leave your office unattended.

- Suspicious strangers should be reported immediately to the NIH Police by dialing 496-5685. □

Power Plant Foreman Retires; Plans To Build Airplane



NIH Power Plant chief John Vilgos (l) presents Mr. O'Brien with an HHS certificate of merit.

The 28-year career of the man who kept NIH cool in the summer and comfortably warm in the winter has come to an end with an October retirement.

James E. O'Brien, NIH Power Plant foreman, came to NIH in 1953 when construction was nearing completion and he helped to put the plant into operation.

He was responsible for keeping the Power Plant's boilers and refrigeration

equipment running smoothly. He led a maintenance crew that kept a constant supply of power to NIH's heating and air conditioning equipment.

Now retired, Mr. O'Brien, who is a certified pilot, plans to complete the construction of an airplane that he has been building at his Wheaton home over the last few years. He hopes to fly it soon. □

CC Volunteer Interpreter Honored by Brazil for Work

Patricia Shepard, a Red Cross volunteer working at the Clinical Center as an interpreter, was honored last month by the Brazilian Military Commission for her invaluable services in communicating with Portuguese-speaking Brazilians being treated at the CC.

She has volunteered her language-speaking services for the past several years, and is the only Portuguese-speaking interpreter. Although only a volunteer, Mrs. Shepard has been called upon to work up to 60 hours a month interpreting. Besides Portuguese, she also speaks French and Spanish. She has lived in France, Belgium, and Brazil as the wife of a U.S. Foreign Service officer.

Colonel Hely Rego, chief of the Brazilian Military Commission, presented a plaque and spoke of the deep appreciation that Brazilians have for Mrs. Shepard's work in assisting military personnel and civilians staying at the CC.

When accepting the plaque, Mrs. Shepard explained that she did not want anyone to think that it was being given to her for speaking Portuguese. "I think what we are praising today is communication with the sick, which goes beyond the frontiers of your country and mine."

Betty Schwaring, CC director of volunteers and volunteer interpreter services,



Mrs. Shepard (c) accepts a plaque from Brazil's Hely Rego (r) for her service to Brazilians being treated at the CC. Her husband, William, was present at the ceremony.

along with Mrs. Shepard's husband William, her brother, Dr. Wales Craven, and his wife, Dr. Elizabeth Craven, attended the reception held after the ceremony.

Brazilian flags were given to them, and roses were presented to Mrs. Schwaring and Mrs. Craven. □

Register Now for FAES Graduate School

Classes for the FAES Graduate School will begin on Feb. 2, and registration may be made now through Jan. 9 by mail, and in person from Jan. 22 through Jan. 28.

Tuition is \$32 per credit hour, and courses may be taken for credit or audit. Courses qualifying for Institute support as training should be cleared with supervisors and administrative officers as soon as possible.

Courses offered include biochemistry, genetics, physics, mathematics, pharmacology, toxicology, nursing, psychology, languages, and courses of general interest.

Credits may be transferred to other institutions for degree work, and many of the courses are approved for AMA category I credit.

The evening classes sponsored by FAES will be given on the NIH campus. A registration form must accompany the check or training application. Schedules are available in the Graduate School office (bookstore) in the Clinical Center, Rm. B1-L-101. For more information, call 496-5272. □

Epidemiology of Aging Publication Now Available

The proceedings from the *Second Conference on the Epidemiology of Aging* are now available. The conference was a collaborative effort by the National Institute on Aging and the National Heart, Lung, and Blood Institute for an effective research program which will extend beyond the study of how aging relates to the incidence and prevalence of diseases occurring in later life.

The major areas of discussion in the publication are: definitions of aging; biomedical correlates of aging; social, psychological, and functional correlates of aging; demographic trends and health care implications; and a summary which makes recommendations for future research.

Copies may be obtained by writing to: National Institute on Aging, Bldg. 31, Rm. 5C-36, Bethesda, Md. 20205. □

NIEHS and Union Local Sign New Agreement

After more than a year of negotiations a new agreement between NIEHS and the American Federation of Government Employees AFL-CIO Local 2923 has been signed and approved by the Public Health Service.

The agreement, replacing a 1973 pact, establishes a joint labor-management committee that will meet quarterly to discuss mutual concerns.

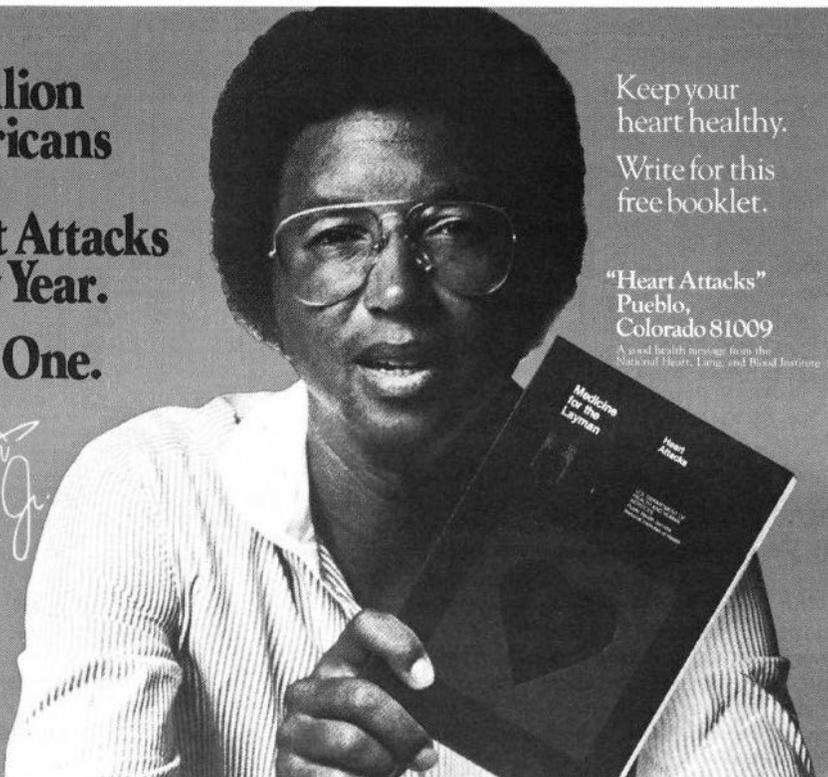
It also calls for an increased number of union stewards for better employee representation and provides AFGC office space on the NIEHS campus.

Other provisions include up to 280 hours of administrative leave for union officials to receive mutually beneficial training, and up to 30 days leave or leave without pay for a male employee to assist his wife and family at home when a new baby is born. □

A Million Americans Have Heart Attacks Every Year. I Was One.

Arthur Ashe, Jr.

U.S. DEPARTMENT OF HEALTH AND HUMAN SERVICES
Public Health Service
National Heart, Lung, and Blood Institute
National Heart, Lung, and Blood Institute
Division of Heart and Stroke
100 Michigan Avenue



Keep your heart healthy. Write for this free booklet.

"Heart Attacks" Pueblo, Colorado 81009

A word health message from the National Heart, Lung, and Blood Institute

Former tennis pro and Wimbledon champion Arthur Ashe, who had a heart attack at the peak of his career, is now a public spokesman for the National Heart, Lung, and Blood Institute educational program on cardiovascular risks. This poster will be shown throughout the country at airports, on buses and subways, and as public service print ads in national magazines. Another version of the same message will be broadcast on 7,000 radio and television stations beginning in January. The *Medicine for the Layman* lecture series booklet on *Heart Attacks*, which was developed by the CC Information Office, is being offered free to the public.

Borden Award Presented To Dr. Donald F. Steiner

In recognition of his extensive work in the biosynthesis of insulin, Dr. Donald F. Steiner, associate director of NIAMDD's Diabetes Research and Training Center at the University of Chicago, was recently presented the 1980 Borden Award of the Association of American Medical Colleges.

In 1965, Dr. Steiner showed that insulin is made by way of a larger molecule, called a precursor or prohormone, which contains the complete insulin molecule within it. This discovery opened up the field of hormone precursors, providing valuable information about the production of human hormones and secretory proteins.

His discovery has since led to significant improvements in the purity of insulin available for treating diabetic patients. It also provided a basis for the production of insulin in the laboratory.

Work Leads to Genetic Engineering

Using genetic engineering techniques, scientists are now implanting proinsulin-producing genes in bacteria which will produce pure insulin in large quantities.

The Borden Award is given annually by the AAMC in conjunction with the Borden Company Foundation for "outstanding research in medicine by a member of a medical school faculty." A committee of noted medical educators from across the nation selects the recipient. □

NLM Offers 10 New Lit. Searches

Ten new bibliographies may now be requested from the National Library of Medicine's Reference Section.

These Literature Searches, part of a series of printed bibliographies on subjects of current interest, were produced through NLM's computer-based system, MEDLINE. They are available without charge.

A complete list of available titles appears in each issue of *Index Medicus* and *Abridged Index Medicus*.

When requesting Literature Searches, please include title and number, enclose a self-addressed gummed label, and mail to: Literature Search Program, Reference Section, National Library of Medicine, Bethesda, Md. 20209.

LS 80-1 Passive smoking. January 1972 through September 1980. 162 citations.

LS 80-2 Spinal cord injuries therapy and rehabilitation. January 1977 through October 1980. 251 citations.

LS 80-3 Elemental diet. January 1975 through October 1980. 170 citations.

LS 80-4 Cardiopulmonary Resuscitation (CPR). January 1977 through October 1980. 112 citations.

LS 80-5 Drugs and the elderly. January 1977 through October 1980. 287 citations.

LS 80-6 Psoriasis therapy. January 1977 through October 1980. 299 citations in English.

LS 80-7 Reye's syndrome. January 1975 through October 1980. 194 citations.

LS 80-8 Vinyl chloride toxicology. January 1977 through October 1980. 245 citations.

LS 80-9 Benzene toxicology. January 1977 through September 1980. 164 citations.

LS 80-10 Amantadine and influenza. January 1975 through October 1980. 114 citations. □

Oxygen Therapy Comparisons Find Continuous 24-Hour Treatment Best for Lung Ailments

A collaborative study, comparing 12-hour nocturnal and 24-hour oxygen therapy for patients with severe respiratory impairment, has found the round-the-clock therapy more beneficial in prolonging life.

Mortality and the effects on the physiologic and neuropsychologic functions affecting the quality of a patient's life were examined in the study.

The collaborative study involved six medical centers and 203 volunteer patients suffering from chronic obstructive lung disease. Their disease was at a stage where the lung could no longer supply the body with enough oxygen to meet its metabolic requirements.

Between 25,000 and 500,000 Americans require oxygen treatment for this stage of chronic lung impairment which is almost always fatal.

The Division of Lung Diseases of the National Heart, Lung, and Blood Institute initiated the study in 1977.

Preliminary evidence from earlier investigations indicated that when oxygen was administered for only 12 hours nocturnally (instead of a continuous 24 hours), it seemed to prevent oxygen deficiency complications such as increased numbers of circulating red blood cells and elevated pressures in the pulmonary artery.

Since continuous therapy is both costly and inconvenient for ambulatory patients, and because oxygen deficiency is especially severe during sleep, 12-hour oxygen therapy would be a feasible alternative if it were as effective as continuous therapy.

The patients were randomly assigned to either the continuous or the nocturnal oxygen therapy program. Because not all participants began the study at the same time, results at the end of the first year were not statistically significant.

However, after all patients had been followed for at least 1 year after the end of the study, mortality rates were 11.9 percent in the continuous oxygen therapy group, and 20.6 percent in the nocturnal oxygen group.

For patients followed for 2 years, principally those who joined at the beginning of the study, mortality was 22.4 percent and 40.2 percent, respectively. By the end of the study, 31.5 percent of all participants had died.

Dr. Claude Lenfant, director of the Division of Lung Diseases, said: "The results of this clinical trial indicate that mortality is twice as great among patients in nocturnal oxygen therapy as among those in continuous oxygen therapy.

"While nocturnal oxygen therapy may be less expensive, it is not as effective in extending life in patients with this particular lung disease."

In regard to other aspects of the study, Dr. Lenfant said: "The differences are less clear. There is evidence that patients with the severest respiratory impairment benefited most from the continuous oxygen therapy.

"Although not all data from the study have as yet been analyzed, it is anticipated that it will contribute considerably to our understanding of the ultimate role oxygen therapy may have in the treatment of lung diseases.

"For example," Dr. Lenfant continued, "there are indications that oxygen therapy may slightly improve neuropsychologic conditions and the patient's perception of his or her quality of life. These indications, however, need further verification."

The centers participating in the trial were: Henry Ford Hospital, Detroit; Northwestern University, Chicago; the University of Manitoba, Winnipeg; the University of California and the Scripps Clinic Research Foundation, San Diego; the University of Colorado, Denver; and, the University of Southern California, Los Angeles.

The results of the trial are reported in the Sept. 3 issue of the *Annals of Internal Medicine* under the title Continuous or Nocturnal Oxygen Therapy in Hypoxemic Chronic Obstructive Lung Diseases: A Clinical Trial. □

Dr. Jacob Robbins Shares Am. Thyroid Asso. Award

Dr. Jacob Robbins, chief, Clinical Endocrinology Branch, NIAMDD, was recently named co-recipient of the American Thyroid Association's Parke-Davis Distinguished Lectureship.

Drs. Robbins and Alvin Taurog, University of Texas Southwestern Medical School, Dallas, were awarded the \$1,500 prize at the 56th annual meeting of the ATA in San Diego in November.



Dr. Robbins

Chief of the Clinical Endocrinology Branch since 1963, Dr. Robbins was cited for his "outstanding contributions to numerous basic research and clinical aspects of thyroidology over many years."

His research accomplishments include the identification and detailed analysis of thyroxinebinding proteins in the blood and abnormalities in the thyroid protein, thyroglobulin. He has also made contributions to the diagnosis and treatment of thyroid cancer.

Formerly with Cornell University Medical College and the Sloan Kettering Institute, Dr. Robbins joined the Clinical Endocrinology Branch in 1954.

He is former director and president of the American Thyroid Association and past editor-in-chief of *Endocrinology*. □



George McGuire (r), recently retired as chief of the Electrical Engineering Section, Engineering Design Branch, DES, is congratulated by Ross Holliday, director of the Division of Engineering Services. He received the NIH Award of Merit "for exemplary technical contributions in the administration of the electrical design program" at NIH.

Smoking is responsible for more deaths every year than the American battlefield tolls in World War II.



Dr. Ruth L. Kirschstein, Director, NIGMS, one of the nine NIH "Meritorious Executives" who received a \$10,000 bonus for outstanding work performance, is congratulated by Charles Miller, Deputy Assistant Secretary for Health Operations. HHS Secretary Patricia Roberts Harris presented the awards in a recent ceremony at the Humphrey Bldg. L to r are: Secretary Harris, HHS Under Secretary Nathan Stark, Mr. Miller, and NIH Director Dr. Donald S. Fredrickson.

Biological Regulators of Metabolism Discussed At Recent Science Writers Seminar

The elaborate communications system enabling cells to coordinate their wide range of biological activities was the subject of a recent NIH science writers seminar. Three NIH scientists discussed their research on several regulators of biological processes.

Dr. Earl Stadtman, chief of the Laboratory of Biochemistry, National Heart, Lung, and Blood Institute, described the role of enzymes in converting "foods" into the complex molecules—nucleic acids, complex lipids and carbohydrates, and proteins—necessary to maintain the body's stability.

The regulation of many important biochemical processes involves activation or inactivation of key enzymes by covalent modification reactions—ones involving the attachment of certain chemical groups such as phosphoryl or nucleotidyl groups to the enzyme.

Cascade Systems Described

Because these modifications and demodification reactions are catalyzed by so-called converter enzymes, they involve the action of one enzyme upon another and are therefore referred to as cascade systems.

Research by Dr. Stadtman and others has shown that such cascades are endowed with extraordinary characteristics making them uniquely effective for regulating key enzymatic processes. For example, they serve as multiplier systems that are capable of generating an amplified response to primary stimuli within milliseconds.

Recent studies suggest that cyclic cascades may play an even greater role in cellular regulation than previously thought. Current evidence indicates that covalent enzyme modification is the basis for a complex network of interlocking cascades which respond to biological signals, and thereby permit a coordinated and synchronous control for many biochemical functions.

Dr. Michael M. Frank, clinical director

and chief of the Laboratory of Clinical Investigation, National Institute of Allergy and Infectious Diseases, discussed the complement system, a series of serum proteins involved in host defense and disease.

The 18–20 known components of complement act in a precise sequence of carefully regulated steps to physically punch holes in the surface of red or white blood cells as well as bacteria. These holes lead to ultimate lysis—destruction—of the cell.

The complement cascade can be activated in two ways. The classical pathway requires the presence of antibody. But certain structures like bacterial surfaces, appear to act with another series of protein components to activate the cascade via an alternate pathway. This pathway then joins the classical sequence at the level of the third component of complement.

When an infection is introduced and antibody is present, the classical pathway is rapidly recruited to the body's defense. However, when a bacterium is encountered for the first time and therefore no antibody is present, complement can be activated via the alternate pathway to ward off the infection.

Complement proteins are also responsible for producing many features of the inflammatory response. Fragments of complement components can produce hives, dilate blood vessels, and generate chemotactic factors.

The role of complement in the production of human disease is usually the result of the proteins being activated under inappropriate circumstances. An individual with circulating antigen-antibody complexes may have these complexes deposited in the kidney where they activate complement and cause tissue damage. At present, there is no drug available to regulate the complement system in man.

A few years ago, Dr. Frank and other intramural scientists—Drs. Jeffrey Gelfand, David Alling, and Richard Sherins—found

Visiting Scientist Program Participants

Sponsored by Fogarty Internat'l Center

11/16—**Dr. Ana Szarfman**, Argentina, Laboratory of Developmental Biology and Anomalies. Sponsor: Dr. George Martin, NIDR, Bg. 30, Rm. 416.

11/17—**Dr. Toshihiko Kuroiwa**, Japan, Laboratory of Neuropathology and Neuroanatomical Diseases. Sponsor: Dr. Igor Klatzo, NINCDS, Bg. 36, Rm. 4D04.

11/18—**Dr. Mario Barragan**, Bolivia, Laboratory of Central Nervous System Studies. Sponsor: Dr. Clarence Gibbs, NINCDS, Bg. 36, Rm. 4A17.

11/18—**Dr. Dilip S. Shah**, India, Laboratory of Preclinical Pharmacology. Sponsor: Dr. Alessandro Guidotti, NIMH, St. Elizabeths Hospital.

11/19—**Dr. H. Jan Keizer**, Netherlands, Medicine Branch. Sponsor: Dr. Robert Ozols, NCI, Bg. 10, Rm. 12N226.

11/20—**Dr. Joseph Kaminchik**, Israel, Laboratory of Tumor Virus Genetics. Sponsor: Dr. Edward Scolnick, NCI, Bg. 41, Rm. A114.

11/21—**Dr. Choong San Oh**, Korea, Laboratory of Oral Medicine. Sponsor: Dr. Ji-Won Yoon, NIDR, Bg. 30, Rm. 232.

11/21—**Dr. Pieter Sonneveld**, Netherlands, Clinical Oncology Program. Sponsor: Dr. Charles Myers, NCI, Bg. 10, Rm. 6N104.

that the drug, danazol, can correct an inherited deficiency in the activity of a protein which inhibits the first component of complement. This abnormality is believed to be the cause of hereditary angioedema.

Continuous use of danazol by HAE patients has been found to prevent the characteristic episodes of swelling of the extremities, gastrointestinal tract, face and neck. Involvement of the latter can be life-threatening if the airway is blocked.

Calmodulin, another protein which mediates the control of a large number of enzymes by the binding of calcium ions, was then reviewed for the science writers by Dr. Claude Klee. She is chief of the Macromolecular Interactions Section of the National Cancer Institute's Laboratory of Biochemistry.

Work in numerous laboratories has shown that calmodulin may be a universal receptor of calcium when acting as a second messenger. The protein regulates not only cyclic nucleotide metabolism but also helps regulate cell motility.

Calmodulin regulates metabolic pathways and activates the calcium ion pump of the red blood cell membrane. Recent research has shown that the protein may be important in modulating the synthesis, release, and action of neurotransmitters at the synaptic levels.

Dr. Klee discussed research by her and others on the mechanism of calmodulin activation of enzyme activity. She thinks it may soon become more interesting to ask which cellular processes are not under calmodulin control than those which are, since it is apparent that a large part of cellular metabolism and function is under the direct or indirect control of this small but precisely designed protein. □



Awards for outstanding performance at the International Visitors Center were recently presented to (l to r): Mary E. Low, JoAnn Boley, Ella Menser, and Marian Beratan. This Fogarty International Center office has administrative responsibility for the NIH Visiting Program, which had 1,000 participants in FY 1980. Also, the staff assisted 400 guest workers and other foreign scientists at NIH on a long-term basis. Their resourcefulness and versatility in dealing with questions ranging from income tax and visa regulations to travel, housing, and health insurance have kept papers moving smoothly despite a continuing staff shortage and increasing number of foreign scientists.

Cynthia A. Hall, NIEHS, Wins Certificate of Excellence



Dr. Galvin and Ms. Hall research the biological effects of microwaves on reproduction in the NIEHS Laboratory of Environmental Biophysics.

Research relating to the biological effects of microwaves on reproduction won a certificate of excellence for Cynthia A. Hall, a technician in the Laboratory of Environmental Biophysics at the National Institute of Environmental Health Sciences.

Ms. Hall, a candidate for a master of science degree in the department of poultry science at North Carolina State University, recently received the award at the 69th annual meeting of the Poultry Science Association at Purdue University.

Her research is part of her degree program and was done in collaboration with Drs. Donald I. McRee, leader of the nonionizing radiation workgroup, and Michael J. Galvin, also of the workgroup, within the Laboratory of Environmental Biophysics.

In this research, sperm obtained from turkeys was exposed to microwaves at a specific frequency, for a set length of time (30 minutes), and at three different levels

measured in milliwatts per gram. Before and after irradiation, the ability of the sperm to fertilize an egg was tested.

The investigation showed that the 96 percent viability of the sperm was not affected at any of the exposure levels examined, and that other characteristics of the samples in releasing enzymes were likewise unchanged by microwave irradiation.

"Thus," the research abstract concludes, "microwave radiation appeared to have no adverse effects on the parameters measured for mature sperm irradiated *in vitro*."

Only 12 of the 123 graduate student papers read at the meeting of the Poultry Science Association were honored with a certificate of excellence.

A resident of Conover, N.C., Ms. Hall graduated with distinction in 1979 from Duke University in chemistry. She plans to attend medical school but does not rule out a future in environmental health research. □

New 'Human Genetic Mutant Cell Repository' Catalog Issued

The *Human Genetic Mutant Cell Repository* catalog, listing 4,200 human genetic mutant cell lines, has been published by the National Institute of General Medical Sciences and is available to investigators.

This seventh edition of the catalog has approximately 300 new cell lines.

All cultures in the collection are stored in liquid nitrogen, including human fibroblast, lymphoblast, and amniotic fluid cell cultures as well as virus transformed fibroblast cultures and selected animal cell lines.

In addition to the mutant cell lines, the catalog has a listing of cells relevant to aging. This portion is supported by the National Institute on Aging.

Copies of the catalog may be obtained from the NIGMS Office of Research Re-

Nuclear Medicine Research Award Shared By Drs. Otteson and Hussain

Drs. Eric Otteson and Rabia Hussain of the National Institute of Allergy and Infectious Diseases' Laboratory of Parasitic Diseases, and Drs. Robert G. Hamilton and Franklin N. Adkinson, Jr., of Johns Hopkins University School of Medicine are the 1980 co-winners of the Society of Nuclear Medicine's Berson-Yalow Award in recognition of "excellence in basic radioassay research."

The award, which was presented to the group at the recent meeting by the Society of Nuclear Medicine's Education and Research Foundation, consists of a plaque and a \$750 honorarium.

Winners of this year's award were recognized as the first group to use solid phase radioimmunoassay to measure IgG and IgE antibodies to antigens of the parasite responsible for filariasis, a disease endemic in the tropics, and one of six tropical diseases earmarked by the World Health Organization for increased research and training.

The Berson-Yalow Award was established by the Society of Nuclear Medicine in 1977, and has since been presented at the Society's annual meeting. The award honors the late Drs. Solomon A. Berson, and Rosalie Sussman Yalow, a 1977 Nobel Prize winner—both are pioneers in the field of radioimmunoassays.

Dr. Hamilton has recently left Johns Hopkins to join the staff of the VA Medical Center in Bronx, N.Y. □



Two staff members were honored for their work at a recent meeting of the NLM Board of Directors. Mary E. Corning, assistant director for International Programs, received the 1980 Regents' Award for Scholarly or Technical Achievement, for her book, "A Review of the United States Role in International Biomedical Research and Communication: International Health and Foreign Policy." Dr. Joseph Leiter, associate director for Library Operations, was presented the 1980 NLM Director's Award, for leading a special MEDLARS III task force that developed plans to automate NLM's activities during the coming decade.

ports, Westwood Bldg., Rm. 9A-10, 496-7301, or the Institute of Medical Research, Copewood and Davis Streets, Camden, N.J. 08103. □

DR. DEVITA

(Continued from Page 1)

MOPP therapy attain complete remission, and appear to be cured.

Dr. DeVita has also proposed other drug combinations that have led to advances in the treatment of non-Hodgkin's lymphoma and breast and ovarian cancers.

After the presentation ceremonies, Dr. DeVita gave an award lecture on progress in cancer chemotherapy.

Previous award recipients have included scientists from Sweden, the United Kingdom, France, and the United States. Recipients are chosen by a 10-member committee of ADRC oncologists.

The prize was first given in 1970, and the monetary award is derived from the yearly revenues obtained from the buildings in Paris owned by the late Leopold Griffuel, a French attorney and philanthropist. □

Internat'l Workshop Focuses on Concepts Of Regulating Protein Synthesis

Experts from around the world will meet in Bethesda Jan. 18-20 for a workshop focusing on current concepts regarding the regulation of protein synthesis within cells.

The 2½-day meeting on the Role of Covalent Modification in the Control of Protein Synthesis will be cosponsored by the National Institute of General Medical Sciences, the National Cancer Institute, the National Institute of Arthritis, Metabolism, and Digestive Diseases, the National Heart, Lung, and Blood Institute, and the International Union of Biochemistry.

The workshop will bring together specialists in the regulatory mechanisms of protein synthesis and investigators who have specialized in covalent regulatory mechanisms controlling other cellular processes.

At the first two sessions, each group of

investigators will present summaries of their respective research areas. Later sessions will promote the fullest possible interchange between the two groups in order to stimulate research progress.

The workshop will have 31 invited speakers and discussants, an additional 80 invited participants, and ample seating for observers.

It will be held in the auditorium of the Uniformed Services University of the Health Sciences (4301 Jones Bridge Road, Bethesda).

Program details and directions for parking will be announced later. Meanwhile, additional information about the workshop can be obtained by calling either Dr. Brian Safer, (301) 496-1284 or Dr. Barbara R. Williams, NIGMS, (301) 496-7087. □

Pediatric Discussions Highlight 5th U.S.-Polish Med. Week



Dr. Kretchmer (seated r on the sofa) sits next to Prof. Bozkowa and joins other members of the Polish health delegation at Stone House.

A group of six men and women from Poland, all physicians or professors of medicine specializing in problems of children, recently visited NIH during the Fifth U.S.-Polish Medical Week.

The event, coordinated by the National Institute of Child Health and Human Development, was held in accordance with the 1974 Intergovernmental Agreement on Cooperation in the Field of Health between the United States and the Polish People's Republic.

Continue to Exchange Data

The medical week, co-chaired by Dr. Norman Kretchmer, NICHD Director, and Prof. Krystyna Bozkowa, leader of the Polish delegation, had as its subject research in maternal and child health. Professor Bozkowa is director of the National Institute of Mother and Child, Warsaw. The purpose of

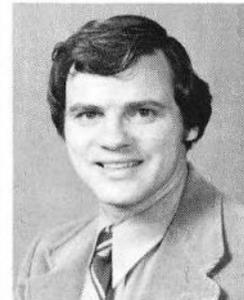
the meeting was to continue the information exchange between the investigators in pediatrics at the NIH and the Polish institutes.

At NIH, scientific sessions were held, consisting of clinical grand rounds given by Professor Bozkowa on a screening program in Poland for inborn errors of metabolism, and a 2-day seminar at the Stone House, sponsored by NICHD with the cooperation of the Fogarty International Center and the D.C. Chapter of the American Academy of Pediatrics.

Following the observance of U.S.-Polish Medical Week, Dr. Kretchmer and Professor Bozkowa signed an agreement to continue the exchange of information on maternal and child health and to identify common research interests and areas in need of further exploration. □

Dr. Leroy Hood To Deliver Kinyoun Lecture Dec. 19

Dr. Leroy E. Hood will deliver the Kinyoun Lecture, sponsored by the National Institute of Allergy and Infectious Diseases, on Friday, Dec. 19, at 4 p.m. in Bldg. 1, Wilson Hall.



Dr. Hood

He will speak on Antibody Genes and Strategies for Their Expression.

Dr. Hood is presently Bowles Professor of Biology and chairman, division of biology, at the California Institute of Technology.

His research interests are in the organization, expression, and evolution of antibody genes. A central question in all of his studies concerns the nature of genetic mechanisms for generating antibody diversity.

The Kinyoun Lecture series honors Dr. Joseph J. Kinyoun, who established the Laboratory of Hygiene at the Marine Hospital on Staten Island that evolved into NIH. □

Youth Motivation Program Led by Dr. Malone

NIH Deputy Director Dr. Thomas E. Malone served as co-leader for the Youth Motivation Program held recently at the North Carolina Central University in Durham.

The program is a joint venture of the National Alliance of Businessmen, the President's Task Force on Youth Motivation, and selected academic institutions. It is designed to expand the occupational outlook of students in traditionally black colleges.

Dr. Malone, with Dr. Mable P. Phifer, president of the Robert R. Morton Institute of Gloucester, Va., led a team of 175 that included a wide spectrum of the nation's industrial, financial, and publishing enterprises as well as country, State, and Federal agencies.

The team members met in small groups with the students over a 2-day period to counsel and encourage them in their career interests. □

Mider Lecture To Be Held Tomorrow

Dr. Louis Sokoloff, chief of the National Institute of Mental Health's Laboratory of Cerebral Metabolism and developer of the radioactive deoxyglucose method of measuring functional brain activity, will present the G. Burroughs Mider Lecture tomorrow (Dec. 10), at 8:15 p.m., in the Masur Auditorium. □

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