

# The NIH Record

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## DR. FREDRICKSON RESIGNS

Citing personal reasons, Dr. Donald S. Fredrickson, NIH Director since July 1, 1975, announced his resignation Friday, June 19, at a special meeting in Masur Auditorium. It will be effective the 1st of July. In his remarks, he stated: "This July, I am completing my fourth 7-year term at NIH. It seems as exhilarating and worthwhile as in the summer of 1953, when I arrived. The last 6 years, however, have been spent in the relentless company of the administrative burdens of the Director. It is time to shed them for a while, lest I forget completely how to be a scientist and a physician."

Dr. Fredrickson also spoke highly of Richard S. Schweiker, stating, "This Secretary has the most extensive background in NIH and in biomedical research of any in the history of the Department."

Continuing, Dr. Fredrickson said that he appreciated Mr. Schweiker's immediate invitation to continue at his NIH post in the new administration.

Details will appear in the July 8th issue of *The NIH Record*.

## Dr. Hasselmyer Named PHS Assistant Surgeon General

Dr. Eileen G. Hasselmyer, associate director for scientific review, NICHD, was recently named an Assistant Surgeon General of the U.S. Public Health Service Commissioned Corps. Assistant Surgeon General is one of the highest ranks a commissioned corps officer can obtain; there are fewer than 70 in the entire corps.

Dr. Hasselmyer, a member of the PHS Commissioned Corps since 1956, joined NICHD in 1963 as the special assistant for prematurity, Office of the Director. Prior to joining the NICHD, she was a senior nurse consultant in the Division of Nursing, PHS.

In her present position, she oversees some 1,600 research and research training grant and contract programs in the areas of maternal and child health and population sciences.

Dr. Hasselmyer has received many special awards including the HEW (now HHS), PHS Commendation Medal.

Last year, she received the Creative Leadership Award in Nursing from the New York University School of Education, Health, Nursing and Arts Profession.

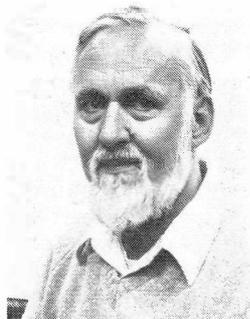
Dr. Hasselmyer is the author of numerous publications in the fields of sudden infant death syndrome, nursing and perinatology. □

## Three 1981 GM Foundation Prizewinners Are NIH-Associated

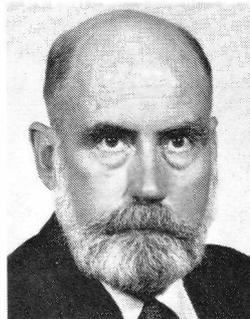
Three of the four winners of the 1981 General Motors Cancer Research Foundation awards are NIH-associated.

Each winner of the Kettering, Mott, and Sloan prizes received \$100,000 and a solid gold medal from the foundation, which was created to recognize international scientific accomplishments in three basic areas of cancer research: diagnosis and treatment, prevention, and basic scientific contributions to the disease, particularly in the areas of etiology and pathogenesis.

The winners are: Drs. Wallace P. Rowe, Cesar Milstein, E. Donnall Thomas, and Takashi Sugimura.



Dr. Rowe



Dr. Thomas

Dr. Rowe, chief of the Laboratory of Viral Diseases, National Institute of Allergy and Infectious Diseases, is universally recognized for his outstanding research in the field of animal virology. His discoveries have changed basic ideas about the relationship among animal cells, viruses, and genes.

For the past 15 years, Dr. Rowe has been studying a large family of viruses called retroviruses. Retroviruses can cause leukemia, sarcoma, and mammary carcinoma in many animal species.

His work has provided significant insights into the complexity of this group of viruses and their intimate relationships to host cells. No counterpart in man is presently known, but biochemical traces of similar viruses have been found in human cells. This finding suggests that similar systems may play a role in some human cancers.

Retroviruses aid in studying normal regulation of cells and thus for identifying what causes uncontrolled cell growth. The genetic material of retroviruses, RNA, produces a DNA copy of itself during multiplication.

In a unique means of replication, the DNA copy of the viral genetic information inserts itself into the chromosomal DNA of the cells infected by the virus.

This chromosomal DNA is the blueprint that determines the inherited nature of cells and directs their function; the viral information is thereafter included in the blueprint for every subsequent generation of cells.

With his colleague Dr. Janet Hartley, Dr. Rowe has developed many now widely used techniques for detecting, growing, and measuring mouse leukemia and sarcoma viruses. He was the first to demonstrate that mouse sarcoma viruses only replicate in the host cell in the presence of another "helper" virus.

Dr. Rowe's studies using leukemia-prone and leukemia-free strains of mice provided the first proof that genetic material for a leukemia virus may be present in unexpressed form within the normal cells' genetic material. He demonstrated that certain chemicals can turn on this genetic information, initiating production of infectious virus.

Work in his laboratory has defined how genetic determinants of the host cells control the expression of virus, and, that in some mouse leukemias, two different inherited viruses must interact before leukemia can develop.

As a direct consequence of Dr. Rowe's work, it is now possible to manipulate specific viral genes by classical genetic techniques to determine their effects on spontaneous, chemically, or physically induced tumors in mice.

(See GM AWARDS, Page 5)

## Secretary Schweiker To Visit NIH Campus

On June 25, HHS Secretary Richard S. Schweiker will make his first visit to the National Institutes of Health campus since taking office. Mr. Schweiker plans to get a firsthand glimpse of the research activities and facilities in Bethesda. He will be accompanied by NIH Director Dr. Donald S. Fredrickson. Several informal presentations will be made, in addition to the Secretary's attendance at a luncheon to meet the B/I/D Directors.

# The NIH Record

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## Training Program Accepting Applications Through June

Applications for utility systems-repairer operator (building engineer) under the Apprenticeship Training Program are being accepted now through the end of June. The maximum number of positions open is six; the apprentice entry hourly rate is \$6.27; and the target journeyman hourly rate is \$9.65.

To qualify, applicants must now be in a nonprofessional job series, have been employed at NIH or NIMH (IRP) for 1 consecutive year immediately prior to close of business on June 29, have career or career-conditional status and be working in a full-time position.

## Education and OJT Provided

The ATP combines on-the-job training, where apprentices are assigned to the more experienced journeymen in the trades, and special classroom work at Montgomery College 1 day per week.

There are 21 apprentices currently working in a variety of trade positions at NIH, including electricians, painters, refrigeration and air-conditioning mechanics, sheet metal mechanics, boiler plant operators and plumbers.

To apply or for additional information, visit the OD-FIC-OA personnel office, Bldg. 31, Rm. 1C-15. □

## Tennis Anyone?

The NIH R&W Tennis Club is offering group lessons, taught by Rick Kramer, a certified instructor of the pro-tennis registry, at the NIH courts.

Lessons—\$25 for five 1-hour classes—will begin on Wednesday, July 8. For further information, contact Rick Hargett, 496-4885.

Applications are available at the R&W Activities Desk, Bldg. 31, Rm. 1A-18. □



Three Chinese and four American immunologists, who participated in recent exchange visits to determine what further collaborative efforts should be undertaken in the field of allergy and immunology, surround NIAID Director Dr. Richard M. Krause (c) during a recent NIH visit. Last September, Dr. Krause headed the four-member U.S. delegation that visited Beijing and Shanghai to promote the U.S.-PRC Cooperative Agreement on Science and Technology of Medicine and Public Health. As part of their visit, the Chinese scientists spent 3 weeks in the U.S. visiting laboratories in Washington, Baltimore, New York, Boston, and La Jolla.

## Employee Conflict Study Over, Ready for Comments

The NIH Study of Employee Conflict and Cooperation, begun in 1977, has been completed. The study represents one of the first attempts by a Federal agency to investigate formally the causes of employee conflict.

Recommendations to ameliorate conflict and promote cooperation, set forth in separate reports by the NIH Task Force for the Study of Employee Conflict and its advisory review panel, are being considered for implementation by NIH Director Dr. Donald S. Fredrickson.

## OPM Survey Conducted

The recommendations are based on data resulting from the 1979 survey conducted by a team from the U.S. Office of Personnel Management. The survey was designed to identify sources of conflict and to seek opinion on formal mechanisms now used by the NIH to help resolve conflict.

The task force and review panel reports indicates that employees perceive the existence of conflict across the NIH. Where conflict exists, it appears to affect job productivity as well as job satisfaction. The reports also indicate that most of the NIH mechanisms now in place to resolve conflict are not completely effective.

## Black Business Leader To Speak on June 25

Rev. Leon H. Sullivan, founder and chairman of the Opportunities Industrialization Centers, will be the guest speaker at the NIH Black Cultural Committee's summer program, Save Our Children: Strategies for the '80s, on Thursday, June 25, at noon, in Masur Auditorium.

OIC, an international self-help vocational training program, has 150 centers in American cities and 10 other countries. □

## Donna Huber Wins Bridge Club Tournament

Donna Huber, NIGMS, was the winner of the NIH Duplicate Bridge tournament held on June 10.

The Bridge Club, sponsored by R&W, meets weekly on Wednesdays at 7:30 p.m. in the Bldg. 1 cafeteria. □

The recommendations contained in the reports cover a wide range of NIH activities, including supervisory training, communications, employee participation in special initiatives, and affirmative action.

Because the recommendations affect all NIH employees—as coworkers, supervisors, and program managers—Dr. Fredrickson has asked the directors of each B/I/D to seek comments on them from staff of all components of their organizations.

## Employees Can Comment

Dr. Fredrickson has also invited comments from individual employees and employee groups throughout NIH.

If you are interested in commenting on the task force and review panel recommendations, you may obtain copies of the reports from the News Branch, Division of Public Information, Bldg. 31, Rm. 2B-10. Send your comments to Dr. Thomas Malone, NIH Deputy Director, Bldg. 1, Rm. 132, by July 15.

Dr. Fredrickson will consider all individual comments as well as those sought from B/I/D's in making his decisions about the recommendations. □

## Training Tips

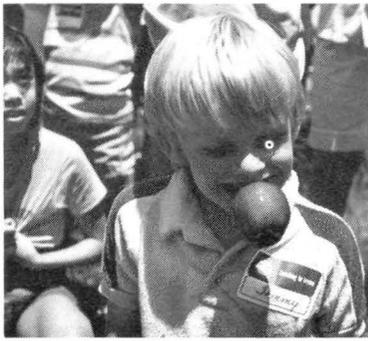
The following courses, sponsored by the Division of Personnel Management, are given in Bldg. 31.

Communication Skills	Course Starts	Deadline
Stress Management	9/9	8/20
Reading Management	9/14	8/26
<i>Summer Employee Program</i>		
Telephone Techniques	7/28	7/8

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

# Over 500 Enjoy First NIH Family Picnic

Photos by Herb Alvord



Bobbing for apples can still be fun.



Sack races were featured throughout the day for both adults and children.



"Did I win?"



Bobbing for apples has other advantages.



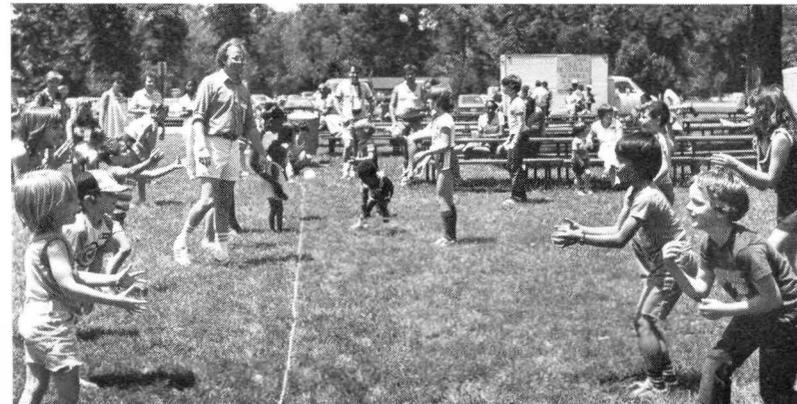
R&W president Jerry Stiller draws some door prizes at the end of the day.



Hop! Hop! Hop!



THE VANQUISHED



R&W manager Randy Schools supervised many of the day's events including a traditional egg toss.



THE VICTORS

Everything from old-fashioned pie-eating contests and sack races to hot dogs and softball were featured at the first annual NIH family picnic.

Over 500 family members of NIH employees turned out for the picnic held at Pinecliff State Park, in Frederick, Md., on Sunday, June 7.

The day's activities were arranged for by the R&W Association. Those attending could spend the day any way they desired with plenty of food and refreshments being served. For the more athletic and adventurous, free canoe rides were available, or one could spend the day listening to the country and western music of the Mountain City

Union band.

The picnic activities began at noon with a wild, wet apple bobbing contest for children. At 1 p.m., kids got into it again with an egg toss. Many of the adults found a challenge in the sack races starting at 2 p.m.

### Contests, Prizes Featured

For children from 3 to 12 years of age, there was a bubblegum-blowing contest with prizes, and facecloths being given to the contestants at 3 p.m. An ear-to-ear pie-eating contest attracted only the stout of heart and stomach at 5 p.m.

Prizes were distributed after each event. Throughout the day, there were continuous

volleyball games, horseshoe tournaments, lawn darts, and a softball game in progress.

A white elephant table, where employees brought items to the picnic from their homes for sale in support of the Patient Activities Fund, was a success.

A tug-of-war waged between NIH women and NIH men attracted great interest and excitement, particularly when the women defeated the men.

The R&W Association is planning this picnic as an annual event. □

If your capacity to acquire has outstripped your capacity to enjoy, you are on the way to the scrap-heap.—Glen Buck □

# Special Week Features Career Options in the 80's

**Career Options in the 80's**, held during the week of May 18, attracted an average of 250 employees each day to the various events sponsored by the Women's Advisory Committee, a component of the NIH Federal Women's Program. Employees obtained information on career planning from a panel of noted women achievers and information on career paths and education at a career fair. For 2 days, 17 workshops on 11 subjects related to career concerns were held, followed by a film festival on the final day. Linda Bremerman, National Cancer Institute delegate to the WAC, chaired the activities. After the opening session, individuals who received a special salute from the WAC during the program were honored at a reception in the Clinical Center cafeteria. The reception was sponsored by the Foundation for the Advancement of Education in the Sciences, Graduate Women in Science, and the R&W Association. Currently, committee members are reviewing evaluation forms from each session to plan followup activities. The Federal Women's Program office, Bldg. 31, Rm. 2B-41, is continuing to accept comments on the week's activities.



Nineteen individuals, recommended by their coworkers, were specially saluted for their contributions to the career development of NIH employees by the WAC. L to r are: Marian Park, NIGMS; Dr. Laurence Miller, NIADDK; Joan Curran, NIADDK; Samuel Blackmon, OA; Grover Fletcher, ODA; Ernest Plata, FCRC; and Dr. Cummings. Second picture (l to r): Virginia Ono, OD; Dr. Elaine Shalowitz, CEC; Dr. William Blattner, NCI; Gloria Tatigian, NCI; and Barbara Murray, NCI. Third picture (l to r): Dr. Robert Whitney, DRS; Kathleen Snowden, DRR; Dr. John Cole, NCI; Joan Topalian, NCI; and Dr. Maurice Guss, NCI. Others saluted but not present were Ena Camargo, Drs. Diane Fink and Paul Torrence.

Achieving Career Success, a panel discussion, was one of the opening programs moderated by Dr. Nancy Cummings, NIADDK. Panelists were Dr. Victoria Barrera-White, Health Services Administration; Naomi McAfee, Westinghouse Electric Corporation; Dr. Carolyn Payton, Howard University; and Renee Poussaint, WJLA-TV, Channel 7. Each panelist shared personal tips on career achievement and answered questions from the audience.



Dr. Barrera-White



Ms. McAfee



Dr. Cummings



Dr. Payton



Ms. Poussaint

At the Career Fair, coordinated by Dr. Ursula Lohmann of the DPM's Career Development Branch, information on career paths, career change opportunities, continuing education and other personnel topics was provided. Over 100 employees volunteered time during the day to serve as role models, answer questions and distribute information. Representatives from local colleges and universities discussed the types of courses available; employees from a variety of occupational series answered questions on education and experience qualifications for their respective careers; DPM representatives provided information on the Career Education Center, Stride and the Apprenticeship Programs; and representatives from Certified Professional Secretaries and the NIH child care programs were included in this large scale information exchange. Workshops which drew large numbers of employees included those on stress management, assertiveness, career planning and financial planning. The Federal Women's Program is reviewing evaluations received from employees to assess the subject interest and working ratings in order to plan future programs.

# GM AWARDS

(Continued from Page 1)

Pinpointing the chromosomal locations of genes of known function is necessary if one is to understand the regulation of gene expression in all animal cells and, ultimately, to understand and control cancer.

Dr. Rowe's work in virology began in the early 1950's at the Naval Medical Research Institute. It was he who determined that the immunologic response to a virus, rather than the virus itself, was causing the disease, making him the first to identify a virus-caused autoimmune disease.

Later, he aided in showing the similarity of a particular virus to certain newly recognized viruses that cause severe human disease and, eventually in classifying the adenovirus group.

In 1952, Dr. Rowe came to NIH. In collaboration with Dr. Robert J. Huebner, he discovered a new group of viruses, now known as adenoviruses.

In addition to Dr. Rowe, Dr. Milstein, member of the Medical Research Council Laboratory of Molecular Biology in Cambridge, England, will receive a duplicate 1981 Sloan prize.

It is the first time in the foundation's 3-year history that the Sloan prize is being



Dr. Milstein

Dr. Sugimura

given to two scientists for individual research. The Sloan award recognizes recent contributions to the basic scientific understanding of cancer.

Dr. Milstein received the Sloan prize for his development of hybridoma (hybrid cell) technology. Hybridoma technology enables the production of unlimited amounts of monoclonal antibodies—pure antibodies that are totally specific to an antigen. The applicability of this procedure to tumor work has advanced the diagnostic as well as the therapeutic approaches to oncology.

Born in Argentina, Dr. Milstein, an immunochemist, received his Ph.D. in 1960 from the University of Cambridge. Following graduate school he joined the scientific

staff of the medical research council of the department of biochemistry at Cambridge University.

More than 20 years ago, Dr. Milstein realized that myelomas (bone cancer cells) could provide the key to the study of immunoglobulins (antibodies) because myelomas continue to reproduce antibodies even when hybridized.

In 1970, he applied this theory to the hybridization of mouse myeloma tumors with antibody-producing cells specific for complex antigen (sheep erythrocytes, or red blood cells). He selected antish sheep erythrocyte-producing clones and demonstrated that each clone secreted unique antibodies specific for determinants on the immunizing antigen.

Dr. Thomas, a grantee of both NIAID and the National Cancer Institute, is director of medical oncology at Seattle's Fred Hutchinson Cancer Research Center.

Dr. Thomas won the Charles F. Kettering prize for his pioneering in the development and improvement of bone marrow transplantation and its applications to acute leukemia and aplastic anemia.

His initial contribution was made in 1959 when he was the first to treat leukemic patients by bone marrow transplantation. At the time he was an associate clinical professor of medicine at Columbia University's College of Physicians and Surgeons in New York.

Prior to this, Dr. Thomas, a native of Texas, had been in Boston, where he received an M.D. from Harvard Medical School in 1946. In 1963, he joined the faculty of the University of Washington in Seattle as a professor of medicine.

Eighteen years ago, he received a Career Service Award from NIAID. In addition, he has received research support since 1958 from NCI. His grants generally focus on research in bone marrow transplantation and treatment of leukemia. His NCI grants for 1981 total \$3.5 million.

Dr. Thomas' subsequent research shows that occurrence of infections arising from allografting (when host and donor grafts are genetically different) can be significantly reduced if donors show histocompatibility with the host/patient.

Histocompatibility means there is close matching of host and donor human leukocyte antigens (those body substances responsible for immunological activity).

Based on his clinical research on allografting in acute leukemia patients, Dr. Thomas has recommended that transplantation take place during remission of the disease rather than during relapse, provided the patient has a suitable donor.

Dr. Thomas was also instrumental in introducing total body irradiation in combination with cytoxan (a chemotherapeutic agent) to destroy leukemic cells prior to transplant. He is now experimenting with a new technique that involves frozen bone marrow cells for use in patients with refractory solid tumors.

Dr. Sugimura, director of the National Cancer Center Research Institute in Tokyo, received the 1981 Charles S. Mott prize, which singles out notable research on cancer prevention.

His work has contributed to the understanding of the relationship between mutagenicity (causing a genetic change) and carcinogenicity (causing cancer) of chemicals, and his major discoveries regarding mutagenic chemicals in foods that are commonly eaten by humans.

## Previously a Fogarty Scholar

Dr. Sugimura was a Fogarty scholar in residence in 1977 and spent two terms here in 1977 and 1979. In 1982, he will return for a third residency. In 1978 he was awarded the Outstanding Work Award of the Environmental Mutagen Society of the United States.

Dr. Sugimura's research indicating the presence of mutagenic and comutagenic chemicals in common foods has obvious relevance to cancer prevention, should the substances be found to have significant carcinogenic activity.

Detailed carcinogenicity studies evaluating the full significance of the presence of such compounds in the human diet are presently under way.

In addition to the gold medal and cash award, each recipient of the GM Cancer Research Foundation awards was invited to deliver a lecture concerned with the work for which the respective prizes are given. The lectures were presented June 17 in the Clinical Center Masur Auditorium, where they will be presented annually for the next 5 years.

Originators of the foundation realized the prestige of the awards would derive from: a distinguished selection panel, worldwide eligibility for the awards, the severity of the selection process and the generosity of the gifts.

Roger Smith, chairman of the board of GM, is the foundation's originator. He hoped the prize would not only be an impetus for further scientific research, but would demonstrate to the public that progress is being made in the fight against cancer. The award, he anticipated, would also encourage more public support for cancer research. □

to consider. To help them in this process, the working group members have asked for comments on the EEO Data Systems Committee's recommendations from employees who have a need for EEO statistics in their work or who have a particular interest in what the report says.

Those interested in reading and commenting on the EEO Data Systems Committee's recommendations, may obtain a copy from the Division of Equal Opportunity, Bldg. 1, Rm. 2B-40. Send your comments to Dr. Malone, Bldg. 1, Rm. 132, by July 17. □

## EEO Data Committee Concludes Sessions

The NIH EEO Data Systems Committee, established to develop a set of recommendations for providing an EEO data system to meet the needs of all NIH staff, has completed its task. Dr. William C. Mohler, associate director, Division of Computer Research and Technology, chaired the committee.

The committee looked at policies and procedures for collecting and retrieving minority data at NIH and other organizations, both Federal and private, to determine what

data are needed to answer questions essential to various EEO functions. These functions include monitoring the Affirmative Action Program, civil rights compliance, and those responsibilities within the Division of Equal Opportunity. The committee used a survey questionnaire to evaluate EEO data needs.

A working group, headed by NIH Deputy Director Dr. Thomas E. Malone, is reviewing the committee's recommendations and developing options for Dr. Fredrickson

## Graduates and CEI Praised at Convocation



The following are the names, degrees, and majors of the NIH students who graduated: Virginia Berger, B.A., social welfare and rehabilitation; Margaret Blake, B.B.A., business management; Alice Borders, B.A., English; Johnny Carter, B.A., social welfare and rehabilitation; Iris Fulmer, A.A., library/media technology; Frances Hawkins, B.A., history; and Mary Lew, B.B.A., business management. Other graduates are: Irene Morrison, B.S., biology; Novella Oglesby, B.A., procurement and public contracting; John Priester, M.A., adult education; Patricia Spinella, B.S., biology; Emma Twyman, B.A., social welfare and rehabilitation; and Albertha Wheeler, M.A., adult education.

Thirty graduating students, representing the four educational centers of the Career Education Institute of the U.S. Department of Health and Human Services, took part in its Seventh Annual Honors Convocation in the Masur Auditorium on June 8.

The event marked the completion of their training programs and the 10th anniversary of the Institute's existence as a place where higher educational courses are offered to Federal employees by the University of the District of Columbia.

The graduates whose studies include such majors as business administration, biology, history, social welfare and rehabilitation, and public management, heard several invited guest speakers, among them televi-



Mary Lew (r), CC, a magna cum laude graduate in business management, was awarded a plaque for having earned the highest cumulative grade point average among this year's NIH graduates.

sion personality and newspaper columnist Carl T. Rowan.

All graduates were Federal employees who had pursued their studies either on their own time in the evenings, or through a special program that provides employees release time from their jobs.

Since CEI's creation, when it was known as Upward Mobility College back in 1971, it

has granted degrees to NIH employees: 294 have received their baccalaureates through the program; 115 were awarded associate degrees; 2 were conferred master's degrees; and of the graduates, 13 are mentioned in the *Who's Who in American Universities and Colleges*.

Calvin B. Baldwin, Jr., NIH Associate Director for Administration, praised the educational program that "has made higher education possible for so many of you."

Currently, the CEI serves employee educational needs at Parklawn, Prince George's Plaza, NIH, and at Southwest, near the U.S. Department of Transportation, and the Bureau of Hearing and Appeals in Arlington, Va. "This program has touched the lives of 16,000 employees since its inception," said Dr. Barbara L. Carter, vice president for academic affairs, UDC.

### 130 Courses Offered

Today, it offers over 130 courses at HHS during the academic year; both during the day and evening hours. Federal employees may receive training which may lead to a degree.

The graduates also heard Dr. Thomas P. Murphy, Deputy Assistant Secretary for Personnel, HHS, comment that the educational program has done more than provide a place where a Federal employee might obtain a college degree.

It has also been a place where many have taken courses in accounting, reading improvement, or have obtained a high school diploma. "This program demonstrates that HHS has an interest in developing their employees," he said.

The theme that the government has a place in employee educational training was echoed by Eugene Kinlow, Acting Deputy Assistant Secretary for Equal Employment Opportunity, HHS, who said that the 10th anniversary of such a program as CEI marked "the Department's continued interest in the concept of lifelong learning in the workplace."

The convocation's keynote speaker was Carl T. Rowan, who appears weekly on

## Normal Males 18-90 Needed For Aging Study

Normal healthy males between the ages of 18 and 90 are being sought for a volunteer study on aging by the clinical section of the Laboratory of Neurosciences, Gerontology Research Center of NIA.

The study will attempt to describe what happens to brain metabolism during normal aging and to evaluate how age differences may affect brain metabolism in relation to brain function, learning, memory and problem solving.

This will be achieved through the PET scan procedure which will map normal glucose distribution and consumption in small, complete areas of the brain. A volunteer will be injected with a small amount of a glucose-like substance.

Participants should be in good health with no major metabolic, neurological, or cardiovascular disease. They will be paid as normal volunteers under the fee schedule established by NIH.

### CC and Baltimore Tests

Individuals will be required to spend a total of 5 days on an outpatient basis for a series of measurements, which include a complete physical examination, neurological evaluation and appropriate laboratory tests designed to measure sensation, memory, and motor function.

One overnight stay may be required at the Gerontology Research Center, Baltimore. Other testing will be done either in Baltimore or at the Clinical Center.

Those interested in volunteering or seeking additional information about the study should contact the Normal Volunteer Office by telephone at 496-4763, or Susanne Feehley, collect, at (301) 396-9466. □

### Strike!

The "Bowling Machine," comprised of Erin Crawford, Earlene Tarwater, Dave Menter, and George Moeller, were the 1980-81 season team winners of the NIH Tenpin Bowling League. The women's highest average was scored by Emily Noiman. Ralph Williams was the men's high scorer. □

*Agronsky and Company*, where his wit and eloquence are employed when he crosses swords with other journalists on the topics of the day. His audience was amused by his vignettes about present and former political pundits.

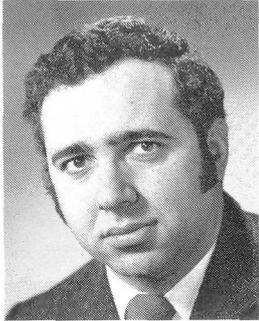
### Poor Must Be Remembered

Using his own career as an example, Mr. Rowan told the graduates that they should always set their goals high in whatever they pursue in life. Commenting on the social forces at work in America today, he said that it "is important there be people at the top who are dedicated to the interests of the poor."

Describing himself as "one of the luckiest men in America," Mr. Rowan told the convocation that a free press and a good education are essential to a strong America. □

## New York University Honors Dr. Todaro With Alumni Award

Dr. George Todaro, chief of the NCI Laboratory of Viral Carcinogenesis, was presented with the Solomon A. Berson Medical Alumni Award from New York University Medical School on May 16.



Dr. Todaro

The award honors alumni who excel in the medical sciences and who inspire others to high achievement.

Dr. Todaro graduated with honors from New York University Medical School, and continued his training as an intern and fellow in the department of pathology.

He has been with NCI since 1967, when he joined the viral carcinogenesis branch as a staff associate. Before assuming his current position in 1976, he served as the head of the Molecular Biology Section in the Viral Carcinogenesis Branch.

The NCI scientist's research has focused on the biology of cells and viruses on a molecular level. He developed two well-defined and widely used cell lines early in his career.

His "viral oncogene hypothesis," formulated with Dr. Robert J. Huebner in the late 1960's, postulated that cancer-causing genes are in the cells of vertebrates at birth and can be activated by exogenous factors to emerge as viruses or to cause cancer.

### Evolutionary Hypothesis

Dr. Todaro's work with viruses and DNA led him to examine the type C viruses of baboons and other subhuman primates. His studies of the genetic similarities among these viral genes led to his hypothesis of an Asian rather than African evolutionary origin for mankind.

A more recent theory suggests cancer cells grow uncontrollably because tumor cells may produce their own growth hormones. Dr. Todaro discovered and isolated a growth factor produced by the cancerous cells of a mouse. When this growth factor is washed out of the cell culture, the cells return to their normal growth patterns.

He has supported and encouraged many young scientists, both at NCI and at other research centers. He is the editor of the *Archives of Virology*, a member of the editorial boards of five other journals, and author or coauthor of hundreds of publications, including two books.

Other awards Dr. Todaro has received include the Parke-Davis Award in Experimental Pathology, the DHEW Superior Service Award, and the Gustav Stern Award for Virology. □

Those who flow as life flows know  
They need no other force:  
They feel no wear, they feel no tear,  
They need no mending, no repair.

—Lao-Tzu (604-531 B.C.)

## US, USSR Agree To Study Bone Mineral Changes During Long Cosmonaut Flights

By Linda Cross

Dr. G. Donald Whedon, Director of the National Institute of Arthritis, Diabetes, and Digestive and Kidney Diseases, traveled to Moscow in May as scientific leader of a group of Americans to arrange for collaborative studies with Soviet scientists on changes in bone in long space flights.

The project involves measurement of changes in bone mineral mass occurring in cosmonauts who have been exposed to space flight lasting at least 6 months.

### Soviets Initiate Visit

The meeting was initiated by Soviet experts in space medicine and coordinated by the U.S. National Aeronautics and Space Administration. Space scientists of both countries want to know more about the effects of long-term space flight on bone, since eventually both countries expect to send missions to Mars which will take 18



Members of the American delegation stand outside of the Institute of Biomedical Problems in Moscow. The scientists are (l to r): Drs. Whedon, Genant, Ifft, and Cann.

months to 3 years round trip.

The longest U.S. flights, conducted as part of the 1974 Skylab mission, have lasted no longer than 3 months, and NASA has no plans at present for flights longer than 7 days. The planned project will take advantage of the longest flights yet made, the Soyuz-Salyut series now in progress.

Dr. Whedon, who supervised bone mineral loss metabolism studies for the Gemini and Skylab missions, has had prior contact with Soviet space scientists on their visits to the United States.

He and Dr. Edward Ifft, delegation head and State Department liaison for NASA, were accompanied by two radiologists, Drs. Harry Genant and Christopher Cann of the University of California School of Medicine in San Francisco.

Drs. Genant and Cann, who are NIADDK grantees, have developed the relatively new method of adapting a computerized axial

tomography scanner to collect vertebral bone data.

At the Institute of Biomedical Problems in Moscow, the Americans met with their Soviet counterparts in space medicine. The director of the Institute, Academician Oleg G. Gazenko, is in charge of all Soviet biomedical space studies and was the scientific leader for the Russian group.

At their invitation, Drs. Genant and Cann modified the CAT scanning machine at Moscow's Central Clinical Hospital to enable Soviet scientists to use it to measure the density of trabecular bone of vertebrae and lower extremities, bone which is more sensitive to losses of minerals in weightlessness.

Scans were performed on standard solutions of various mineral content before the technique was carried out on the two Russian radiologists and the American radiologists. This was done to demonstrate the function of the modified equipment and for calibration purposes.

The resulting raw data from these measurements were returned to the University of California, San Francisco, for analysis using computer software specially developed for this purpose by the Americans.

The results of these initial measurements will be communicated to NASA headquarters and the USSR as soon as they become available.

In the future, Soviet cosmonauts will be flown to Moscow where Russian scientists will make measurements of their bones before and after spaceflights which last 6 months.

### Agreement Signed in May

As part of the protocol agreement, US-USSR Cooperation in the Measurement of Vertebral Bone Mineral Changes Resulting from Spaceflight, signed by the participating scientists on May 22, the information will be sent to the U.S. for processing and the results will be shared by the two groups of scientists.

The data from this collaborative study, when compared with those obtained in the U.S. space flights, will help to clarify whether bone loss continues unabated for as long as space flight is continued, or whether and at what degree of bone loss the excess excretion of minerals subsides.

Dr. Whedon noted that the results of research on the biomedical aspects of space flight may lead to a better understanding of the underlying mechanisms and proper treatment of bone diseases.

"For example," he said, "NASA-sponsored studies of possible corrective or protective procedures and treatments for the effects of weightlessness on bone may have significant potential application to the treatment of osteoporosis, the most common bone disease."

Dr. Whedon has published numerous scientific papers in the areas of diseases of bone (particularly osteoporosis), human energy metabolism, space medicine, and musculoskeletal physiology. □

## Modern Message-Supply Delivery System Installed in New Clinical Center Addition



Only finishing touches remain to be completed on the new Ambulatory Care Research Facility building. The \$100 million ACRF has been under construction since 1977, which on the lower levels, joins the older Clinical Center building built 25 years ago.

"The biggest red brick building in the world" will get its first occupants this summer, and all moves will be completed within a year. The dedication ceremony for the ACRF is planned for Oct. 22.

New units have been created for better efficiency in patient research and support. A sophisticated threefold message-and-supply delivery system has also been installed.

This innovative addition includes a fleet of fully automated flat car carriers (AMSCAR), a basket conveyor operation (Moseler Tel lift), and a computerized pneumatic tube system (Trans Logic).

The B-1 and -2 levels, and the first and second floors of the ACRF open into the CC building, but floors 3 through 13 are exclusively in the black-mirrored tower, connected to the old building by a single bridge.

The B-2 level now has a media and glassware section, a loading dock expanded to four times its original size, and AMSCAR's home base in another section. The B-1 level has a new X-ray film storage area, already occupied and situated directly below the new diagnostic radiology department.

The Moseler Tel lift conveyor system connects the two locations. The tel lift system runs on tracks in the ceiling, serving to transport patient X-rays and records between floors.

A central hospital supply section, serving as the hospital's decontamination and sterilization facility, is also on the B-1 level. It is three times larger than the old central sterile supply and makes use of the AMSCAR system extensively. The bottom level of the three-story visitor's center is also on this floor.

The first floor consists of the patient activities area, the first floor of the visitor's center, and a two-story amphitheater which has the appearance of a college lecture hall and will be used as an all-purpose meeting hall for various functions.

The second floor contains the new surgical suite to replace 10th floor surgery in the old building, and a huge clinical pathology room. The clinical pathology area is a large open room partially divided by "doggie bones" counterspace which separate laboratory technicians working up patient tissue analyses, while still leaving the work area open.

The intensive care unit will be located on the second floor of the ACRF adjoining the cardiac care unit relocated in the old building, which is opening in July.

Over the next 10 years, all nursing units will be rebuilt and relocated because of outdated facilities. When completed, 52 AMSCAR stations will serve more than 27 nursing units.

Floors 3 through 13 in the ACRF tower each contain a different Institute activity. The west half of each floor will be occupied by clinic space; the east half by laboratory and animal facilities.

The updated delivery system cuts down traffic, wasted time, tied-up elevators, and lets professionals attend to business instead of restocking supplies.

AMSCAR, developed by Webb Electric Division, is almost completely installed. Twenty-eight cars will be in use in the new building, each costing \$25,000.

The system only enters the old building at one location, and is proposed to extend to the laundry facility in Bldg. 13. Scheduling is the most important aspect of the system, so for the next 2 months, workers will be streamlining its performance to get the "bugs out."

Staff workers in the 20-month-old material handling department have been collecting data to learn the pattern of supply

distribution. The system will be set up something like industrial engineering, or "operations research."

Eventually, schedules will be programmed into the computer, priorities will be set up, commodity distributions lined up, and directions will be given.

"Doors open automatically, lights at the intersection flash, the AMSCAR then beeps, sticks its head out, and then goes across," said John Nazario, MHD chief, when describing AMSCAR as it crosses a public corridor.

The stainless steel, battery-powered AMSCAR is electronically guided, and follows up to 18 buried wire guidepaths in the corridor floor, which send out radio frequency signals.

The system will completely replace the distribution services supplied by the Supply Operations Branch in Bldg. 10, but that branch will still be responsible for its usual services in the other buildings.

Supplies will be loaded into two types of cabinet-sized stainless steel boxes, which will then be slid onto the AMSCAR base. The box will then be lifted off the ground, the wheels will come up, and the car will take off.

Buttons on the top of the AMSCAR front panel will be dialed for a specified destination out of a possible 24. The cars move down nonpublic corridors and go to one of three specially designed elevators.



The inner workings of AMSCAR—the "incredible messenger"—lie exposed waiting to be worked on. Each of the electronically guided cars will take three rechargeable batteries.

The cars wait for the next available elevator, electronically signal what floor to stop at by a combination of lights on its side, and get off the elevator and travel to the next open "drop off spur" to deliver the material.

Supplies are then manually delivered according to schedule. The car then goes

*(Continued on Page 9)*



The "brains" of a "robot-like" AMSCAR, which will serve the ACRF, is being programmed by electronic technician Chuck Marlowe of Webb Electric Division, owners of the system patent.

(Continued from Page 8)

back to a stand close to the elevator for a predetermined amount of time until it is used, and if not, the car automatically goes back to home base.

AMSCAR only crosses one public corridor on the B-2 level on its way to soiled glassware. Following each soiled service, a cart will be programmed to enter one of two miniature carwashes on the B-1 or B-2 levels.

According to Mr. Nazario, AMSCAR will carry almost anything except animal carcasses, radioactive waste, oversized packages, explosive or flammable materials, and infectious medical or pathological wastes.

AMSCAR will be operational 24 hours daily. NIH Maintenance Engineering Branch personnel are being trained to take control of maintenance of the system from the contractor. Rechargeable battery packs must be exchanged every few hours or days, varying with cart use. Fire doors, safety bumpers, and troubleshooting capabilities are included in the system.

By this fall the Moseler Telelift track conveyor system will link some 10 stations in the complex. Anyone will be able to dial-address up to 20 pounds of medical records, documents, supplies, or blood and tissue samples to another station 24 hours daily.

The Powers Trans Logic 20 Series, will service the ACRF, east side nursing units, and central sterile supply. Up to 3 pounds of computer printouts, documents, and certain other items may be sent inside the 100 clear lexan carriers.

In sequence, material will be placed in the side opening of the carrier, placed inside the station, the station door closed, a two-digit station code dialed, button pushed, and finally the computer takes over, sending the material on a direct path to its destination.

The installation of the three systems is nearing completion, although future expansion is probable. They all should be in full operation before the official ACRF dedication ceremony. □

## Dr. C. R. Kahn Leaves NIADDK for New Boston Position

Dr. C. Ronald Kahn, internationally renowned investigator in the field of diabetes and chief of the Section on Cellular and Molecular Physiology, Diabetes Branch, NIADDK, is leaving July 1 to become research director of the Joslin Diabetes Center, and chief, diabetes and metabolism, at the Brigham and Women's Hospital in Boston, Mass.

Dr. Kahn received the Eli Lilly award for his studies of receptor and insulin mechanisms June 13 at the national meeting of the American Diabetes Association.

The CIBA-Geigy/Drew Award, "Frontiers in Biomedical Research," jointly sponsored by the CIBA-Geigy Pharmaceutical Division and Drew University, will be given to him Oct. 20 for his work on insulin and insulin receptors.

"I have enjoyed very much my years at NIH and find it very difficult to leave," said Dr. Kahn. "There is no doubt in my mind that the NIH offers a unique opportunity in research training due to the large collection of truly distinguished scientists gathered here."

He has made significant research contributions to studies of insulin receptors and insulin action; insulin-like growth factors; diabetes mellitus; hypoglycemia; and immunity and autoimmunity in endocrine disorders.

One area of special interest to Dr. Kahn is the role of insulin receptors in disease states such as obesity and other insulin-resistant forms of diabetes.

In collaboration with Drs. Jesse Roth, chief, Diabetes Branch, NIADDK; Phillip

Gordon, NIADDK clinical director; and David Neville, Jr., NIMH, Dr. Kahn showed that these diseases were caused by a defect in insulin action at the cellular level due to a change in receptors on target cells.

His research into the mechanism of insulin action and comparisons of metabolic and growth-producing activities has proven that these activities are mediated through different pathways. Dr. Kahn and colleagues also discovered a rare form of insulin-resistant diabetes which is caused by antibodies to the insulin receptor. These antibodies were then used to study receptor structure and function. Dr. Kahn's studies have also included tumor hypoglycemia, both islet-cell tumors producing insulin, and non-islet-cell tumors which may produce insulin-like factors leading to hypoglycemia. He has also investigated insulin allergy and insulin-resistance due to anti-insulin antibodies. These studies have pointed the way to possible genetic control of the immune response to insulin in man.

His first position at NIH in 1970 was as clinical associate and senior clinical associate in the Clinical Endocrinology Branch. He later was senior investigator in the Diabetes Branch, and became chief of the Section on Cellular and Molecular Physiology in 1979.

Dr. Kahn serves on the editorial boards of five professional journals. He was the recipient of the 1977 Juvenile Diabetes Foundation David Rumbough Memorial Award for Scientific Achievement, and was invited to present his work at the 1980 Laurential Hormone Conference. □

## Visiting Scientist Program Participants

### Sponsored by Fogarty Internat'l Center

5/28—**Dr. Essam Karawya**, Egypt, Biosynthesis Section. Sponsor: Dr. Samuel Wilson, NCI, Bg. 37, Rm. 4D23.

5/28—**Dr. Rodney Minchin**, Australia, Clinical Pharmacology Branch. Sponsor: Dr. Michael Boyd, NCI, Bg. 10, Rm. 6N111.

6/1—**Dr. Enrica Alterri**, Italy, Laboratory of Immunobiology. Sponsor: Dr. Edward Leonard, NCI, Bg. 37, Rm. 2B21.

6/1—**Dr. Jose Lino Baranao**, Argentina, Endocrinology and Reproduction Research Branch. Sponsor: Dr. Maria L. Dufau, NICHD, Bg. 10, Rm. 12N216.

6/1—**Dr. Yasutaka Hoshino**, Japan, Laboratory of Infectious Diseases. Sponsor: Dr. Richard Wyatt, NIAID, Bg. 7, Rm. 105.

6/1—**Dr. Hanne Johansen**, Denmark, Laboratory of Biochemistry. Sponsor: Dr. Martin Rosenberg, NCI, Bg. 37, Rm. 2D19.

6/1—**Dr. Hideki Kawamura**, Laboratory of Experimental Pathology. Sponsor: Dr. Stuart Yuspa, NCI, Bg. 37, Rm. 3A21.

6/1—**Dr. Michel Kress**, France, Laboratory of Molecular Virology. Sponsor: Dr. George Khoury, NCI, Bg. 41, Suite 200.

6/1—**Dr. Jean Langhorne**, United Kingdom, Laboratory of Microbial Immunity. Sponsor: Dr. John Finerty, Bg. 5, Rm. 206.

6/1—**Dr. Pertti Panula**, Finland, Laboratory of Preclinical Pharmacology. Sponsor: Dr. E. Costa, NIMH, St. Elizabeths Hospital.

6/1—**Dr. Kambhampati Rao**, India, Laboratory of Medicinal Chemistry. Sponsor: Dr. Victor Marquez, NCI, Bg. 37, Rm. 6D17.

## Alan H. McKerrow Retires; NIH Stage Band Member

Alan H. McKerrow, administrative officer for intramural research, NIDR, retired May 30 after 28 years of Federal service.

Mr. McKerrow joined the NIADDK/NIDR staff in personnel management in 1964, where he eventually became personnel officer for NIDR and the former Division of Biologics Standards.

As administrative officer for intramural research since 1974, he has been responsible for planning, developing, and carrying out the administrative aspect of the NIDR intramural research programs.

During his career, he was a university music department instructor, a professional orchestra leader and musical arranger and later joined the Defense Department before moving to the Washington area in 1964.

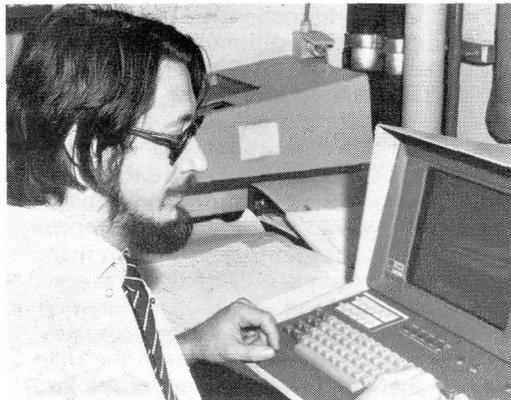
When the NIH Stage Band was started by Tony D'Angelo in 1973, Mr. McKerrow immediately joined the group playing trumpet and flugelhorn. Since the recent resurgence of the "Big Bands," this group has found a market for its music and performs throughout the area.

His retirement begins with a 3-week trip to Russia with his wife and daughter. They are accompanying their other daughter, Amanda, who is a representative of the U.S. ballet dancing team which is performing later this month in the International Ballet Competition in Moscow's Bolshoi Theater. □

## Former FIC Fellow Wins European Diabetes Award

Dr. Pierre De Meyts, a former visiting scientist in NIADDK's Diabetes Branch, will be awarded the prestigious 1981 Minkowski Prize of the European Association for the Study of Diabetes at its 17th annual meeting in Amsterdam, the Netherlands, on Sept. 15-18.

A certificate and 10,000 Deutsche marks (approximately \$4,400 American) will be presented to Dr. De Meyts for "distinction manifested in publications which contribute to the advancement of knowledge concerning diabetes mellitus."



A visiting FIC fellow at NIH from 1973 to 1976, Dr. De Meyts is now a diabetologist at the International Institute of Cellular and Molecular Pathology in Belgium where he established his own research group.

The prize is given to outstanding diabetologists under age 40 who reside and study in Europe. Previous winners include former NIADDK diabetes branch visiting scientist, Dr. Pierre Freychet.

## Dr. B. R. Line To Leave Nuclear Medicine Dept.

Dr. Bruce R. Line, a staff physician since 1979 in the nuclear medicine department, is leaving the Clinical Center this month to become professor of radiology at the Albany Medical Center Hospital in Albany, N.Y.

Dr. Line came to NIH as a clinical associate in 1974. Since then he has been a research analyst in the Division of Computer Research and Technology and an associate of the Pulmonary Branch of NHLBI.

His research has concentrated on chronic lung disorders as well as the function and dysfunction of other organs. He has also studied quantitation of regional pulmonary function using radioisotopic techniques, gated pulmonary scintigraphy at rest and exercise, and gallium scanning in interstitial lung disease.

Dr. Line has authored or coauthored more than 30 clinical science papers. At the mideastern chapter meeting of the Society of Nuclear Medicine in April 1981, he received the Armed Forces Radiologic Research Institute Award for his research on the effect of respiration and patient position on liver-spleen scans determined by multigated image analysis.

He is a graduate from Albany Medical College and did his internship at Albany Medical Center. □

Dr. DeMeyts is a leader in research on the molecular basis of insulin action and, in particular, on the physical chemistry of the binding of insulin to its receptors on the surface of cells.

While working with Diabetes Branch chief Dr. Jesse Roth and staff, he introduced the principle of negative cooperativity: in the presence of increased amounts of insulin, receptor affinity decreases, causing accelerated dissociation of the complex that insulin forms with its receptor.

To demonstrate this principle, Dr. De Meyts devised a technique that involved measuring the dissociation rates of a tracer of labeled hormone in the presence and absence of an excess of unlabeled hormone.

Using this tool, he found that the region of the insulin molecule responsible for biological activity is distinct from the region responsible for cooperative interaction. He showed that the receptor site also has two distinct regions.

The research has proved useful to investigators studying the regulatory mechanisms of a number of different endocrine hormones that modulate the sensitivity of the target cell to hormone action.

Dr. De Meyts came to NIH on a fellowship from the Fogarty International Center in 1973. He received additional support from the American Diabetes Association.

His stay at NIH was interrupted by conscription into the Belgian Army in 1976. Discharged after 15 months as a military physician, he established his own research group at the International Institute of Cellular and Molecular Pathology in Brussels, headed by Nobel prizewinner Dr. C. de Duve.

In addition to his work at the Institute, he is a senior research investigator (*chercheur qualifié*) at the National Foundation of Scientific Research (Fonds National de la Recherche Scientifique) in Belgium. □



Marianne Wagner, NCI personnel officer and chief of the Personnel Management Branch, has been elected president of the Washington, D.C. chapter of the International Association for Personnel Women for 1981-1982. The national organization has 24 affiliate groups in the U.S. as well as members in foreign countries. Its purpose is to stimulate interest in careers for women in the personnel management field.

## Ken Carney and Ken Cooke Named to Executive Posts

Kenneth G. Carney has been appointed executive officer of the National Library of Medicine. He succeeds Philip Amoroso who left the Library in January to become the executive officer of the National Cancer Institute.

Associated with NIH since 1958, Mr. Carney worked part-time as a medical illustrator in the Medical Arts and Photography Branch while attending American University. After graduating, he became a full-time NIH employee in 1964 as administrative assistant at the Division of Computer Research and Technology. He became administrative officer in 1967.

He has been with the Library since 1968, serving in a number of administrative capacities, including grants and contracts management, program analysis, and most recently as deputy executive officer. He has received a superior performance award in 1960 and the NIH Merit Award in 1977.



Ken Carney (l), NLM's new executive officer, discusses policy matters with his new deputy executive officer, Ken Cooke.

Kenneth O. Cooke has been named NLM deputy executive officer. He has long been associated in research, starting his career as a laboratory technician at Fort Detrick's U.S. Army Biological Laboratories in 1961. He became a laboratory technician with the National Cancer Institute in 1967.

Mr. Cook began his administrative career as an NIH management intern in 1970, and progressed in positions as budget analyst, NICHD; budget officer, NEI; and administrative officer, and subsequently deputy executive officer of NIAID. □

## Relax—Listen To 'The Classics'

R&W is sponsoring a piano concert on Friday, June 26, at noon, in Masur Auditorium.

Geert Dehoux of Belgium will perform works from Chopin, Liszt, Debussy, Benoit and Villa-Lobos. Mr. Dehoux received the First Prize of Scores at the Royal Conservatory of Antwerp and the First Prize of Piano at the Royal Conservatory of Brussels. He was awarded the "Prize of the King 1980" of the Belgium Foundation Vocation.

All NIH employees, Clinical Center patients, and families are invited to attend. □

I never considered a difference of opinion in politics, in religion, in philosophy, as cause for withdrawing from a friend.—

Thomas Jefferson □

## Researchers Find Antigens Can Attract Immune Complexes to Abnormal Sites

Why does a normal part of the body's defense system sometimes become a cause of disease? One reason may lie in the chemical structure of the antigen which stimulates the immune response.

Drs. A. Rifai and Paul H. Plotz, Chemical Immunology Section, Arthritis and Rheumatism Branch, National Institute of Arthritis, Diabetes, and Digestive and Kidney Diseases, have found that the chemical structure of the antigen can attract immune complexes—combinations of antigens and antibodies—to abnormal sites instead of the locations to which they would normally go for disposal. By settling in abnormal places in the body, these complexes might cause inflammation.

Drs. Rifai and Plotz discussed this work at the recent 65th annual meeting of the Federation of American Societies for Experimental Biology in Atlanta.

Some illnesses seem to be due to inflammation caused by immune complexes—combinations of foreign substances, called antigens, and proteins, called antibodies, which the body makes to remove those foreign substances. Immune complexes are a normal part of the body's healthy defense against infection. So why does this normal defense turn into a cause of disease?

Drs. Rifai and Plotz developed a family of test antigens for making model antigen-antibody complexes. Each model complex differed from the others in its antigen chemical structure.

The scientists found that the different complexes behaved quite differently when injected into mice. Some of the complexes

were carried to normal disposal pathways—mainly specialized cells, or phagocytes, in the liver and spleen.

Others were carried not only to the phagocytes in the liver, but also to the liver cells themselves. Still others were carried to phagocytes in the liver, but were bound in a different way.

The investigators also found that when the antigen-antibody complex is small, the influences of the antigen's chemical structure is particularly strong. This suggests that conditions which favor the formation of small immune complexes are more likely to lead to the abnormal disposition of these complexes.

Drs. Rifai and Plotz concluded that the structure of an antigen can influence where the antigen-antibody complex goes and may be responsible for the apparent failure of normal defense mechanisms, a failure which allows complexes to set up inflammation at abnormal sites.

The investigators were careful to note that their findings do not prove that antigen structure is the most important or even an important feature responsible for the abnormal behavior of immune complexes in disease.

Their findings do, however, suggest a plausible hypothesis to account for some diseases and underlie the need for further studies to detail the structure of natural immune complexes. □

The sway of alcohol over mankind is unquestionably due to its power to stimulate the mystical faculties of human nature.—William James (1842–1910) □

## Barbara Watley, NCI Grants Expert, Retires

Barbara Watley, supervisory grants technical assistant, retired May 29 after more than 25 years with the National Cancer Institute.

Ms. Watley started as a grants clerk in the former Field Investigations and Demonstration Branch in 1956. Since then she has worked on most types of grants, except for fellowships.

"When I first worked there, one office got all the applications," she recalls. "We did everything, even paying out. There was a great deal of satisfaction in seeing grant applications all the way through."

"All the administrative staff of NCI was in one wing of the building. There was one budget officer, and the Surgeon General used to come to board meetings."

"Some people don't like the changes that come over the years, but I've seen young people come in, stay, and become branch chiefs—which I think is pretty exciting."

Ms. Watley's longest assignment was with Dr. Donald Fox in the Research Facilities Branch, which administers the NCI construction program.

"Barbara's work has been the backbone of the construction program for years," Dr. Fox said. "Her constant good spirits and compunction for detail have been an inspi-

ration. We're going to miss her very much."

After attending business college in Norfolk, Va., Ms. Watley began her working career in 1942 as a clerk-typist at the Norfolk Naval Shipyard in Portsmouth. She will retire to Norfolk.



Ms. Watley (l) thanks everyone at her retirement party for the gold chain presented to her by Dr. Fox.

## Dr. Rodbard Receives Ayerst Endocrine Society Award

Dr. David Rodbard of the National Institute of Child Health and Human Development received the 1981 Ayerst Award of the Endocrine Society at the annual meeting of the society on June 18, in Cincinnati, Ohio.



Dr. Rodbard

The Ayerst award is given in recognition of outstanding leadership and service to the endocrine community, and is accompanied by a \$2,000 check.

Dr. Rodbard was cited for his development of a series of computer programs, for analysis of results from radioimmunoassay, radioreceptor assay and ligand-protein interactions, and for estimation of molecular weights from polyacrylamide gel electrophoresis and gel chromatography. These programs have been widely distributed, and are now used in laboratories throughout the world.

He received his M.D. from Western Reserve University in 1964. He was an intern at Harborview Hospital in Seattle, Wash., and a resident in internal medicine at Hahnemann Hospital in Philadelphia.

Dr. Rodbard came to NIH as a clinical associate in 1966, assigned to the Endocrinology Branch, NCI, and has been at NIH ever since.

Working under the guidance of Dr. Griff T. Ross, Dr. Rodbard helped to develop one of the first radioimmunoassays for FSH. Thereafter, he turned his attention to the mathematical principles, computerized optimization, and statistical analysis of RIA systems.

He is now head of the Biophysical Endocrinology Section, Endocrinology and Reproduction Research Branch, NICHD.

Dr. Rodbard's laboratory is presently engaged in a wide variety of activities, ranging from theoretical and experimental studies of binding of a new class of enkephalin analogs to brain membranes to applications of computers in clinical medicine. □

## Dr. H. Yajima, Japan, Returns For Second FIC Scholarship

Dr. Harauki Yajima, professor of pharmaceutical chemistry, Kyoto University, Japan, recently returned to NIH for his second term as a Fogarty scholar-in-residence.

Prof. Yajima is well-known for his research on the synthesis, structure and function of peptides and protein. In 1980, he achieved the first chemical synthesis of fully active ribonuclease. During this term, Dr. Yajima will collaborate with Dr. Darrell Liu, Bureau of Biologics, and Dr. Alan Schechter, NIADDK.

He will also participate in the FIC seminars on current topics in biomedicine. His office is in Stone House, where he can be reached at 496-2042 until the end of August. □

## National Gallstone Clinical Trial Indicates Limited Success With 'Cheno Acid'

The National Cooperative Gallstone Study found that after 2 years of treatment, only 14 percent of the 305 patients receiving 750 milligrams of chenodeoxycholic acid (CDCA) per day experienced complete dissolution of gallstones. Another 27 percent experienced partial dissolution.

During 2 years of treatment there was no change in the number or severity of gallbladder attacks, nor did CDCA significantly change the rate of surgical removal of the gallbladder. The study was supported by the National Institute of Arthritis, Diabetes, and Digestive and Kidney Diseases.

In the United States, about 500,000 gallbladder operations are performed each year at a total cost of about \$1 billion. An estimated 5,000 patients die each year as a result of this surgery.

Basic investigations led to the earlier discovery at the Mayo Clinic by Drs. Leslie Schoenfield, Johnson Thistle, Alan Hofmann and Rudolph Danzinger that CDCA could dissolve gallstones. This finding provided the first potential alternative to surgery for patients with gallstones.

The early response to CDCA was enthusiastic both in the United States and abroad. However, there were inadequate data about the drug's safety and effectiveness.

The national clinical trial was formulated in 1973 in order to obtain more accurate information about the usefulness and risks of CDCA and to put this new drug in proper perspective. The Food and Drug Administration must evaluate the results of the study and make the final decision on whether to allow companies to market CDCA for the treatment of cholesterol gallstones.

Cedars-Sinai Medical Center in Los Angeles was the coordinating center for the \$10 million carefully controlled clinical trial which involved 916 patients at 10 hospital centers throughout the country.

The centers were located at Duke University, Mayo Clinic, the University of Minnesota, Cornell University-The New York Hospital, the University of Maryland, Ohio State University, the University of Pennsylvania, Emory University, the Cedars-Sinai Medical Center, and Scott & White Memorial Hospital in Texas.

Dr. Schoenfield, director of gastroenterology at Cedars-Sinai and professor of medicine at the University of California, Los Angeles, headed the project.

The 916 patients participating in the study were given either 750 or 375 milligrams (mg) of CDCA per day, or a placebo. All patients were monitored clinically and by blood tests and X-rays at prescribed intervals during their 2-year participation.

In the 305 patients given 750 mg of CDCA per day, complete gallstone dissolution occurred more often in patients classified as thin, and patients with small gallstones. In addition, complete dissolution also occurred more often in patients who had high serum cholesterol levels, although the reason for this is not completely understood.

The 750 mg dosage caused mild diarrhea in 41 percent of patients, and it produced a 10 percent elevation of the average serum cholesterol level, which could impose a slightly increased risk of developing heart disease with long-term use.

In addition, in 3 percent of patients treated at this dosage level, clinically significant abnormalities in the liver occurred, although the biochemical abnormalities were reversible in each case.

According to Dr. Schoenfield, the administration of 750 mg of CDCA per day may have a role in the treatment of appropriately selected patients with cholesterol gallstones.

Treatment should be based upon an understanding of the potential benefits and risks of the drug as compared to those of surgery, or of taking no action.

Because in earlier studies there were reports of gallstones recurring after the drug was discontinued, NIADDK is also supporting research on the effectiveness of CDCA in preventing recurrence.

The study results were announced by Dr. Schoenfield and colleagues at the annual meeting of the American Gastroenterological Association in New York during Digestive Diseases Week, May 16-23. □



**Dr. Sheldon G. Cohen, director of NIAID's Immunology, Allergic and Immunologic Diseases Program, was honored recently with the Ninth Annual Clemens von Pirquet Lectureship Award. The award is given annually to an individual who has made a significant contribution to the field of clinical allergy and immunology. In his recent lecture at Georgetown University Medical Center, Dr. Cohen spoke on the Clinical Relevance of Eosinophilia.**

### Fore!

Anne Proctor scored the lowest number of strokes by women in the recent Betty Sanders Open of the NIH Golf League. In the male category, Thom Spencer was the final winner. Team matches are arranged for 5 p.m. weekdays until September. □

## National Survey Tells U.S. Stroke Story

For the first time, a national study has established baseline data on the incidence and prevalence, the clinical practices, and the economic impact of stroke in the United States. Results of *The National Survey of Stroke*, which was undertaken by NINCDS, have been published as a supplement to the March/April 1981 edition of the journal *Stroke*.

Stroke, one of the most common disorders of the central nervous system, is the third leading cause of death in the U.S., accounting for 10 percent of all deaths.

This survey of stroke was conducted by Westat Research, under the direction of NINCDS's Office of Biometry and Field Studies. The study is based on a sample of 2,710 hospital records drawn from 41 U.S. geographical regions for the years 1971, 1973, 1975, and 1976.

Specific objectives of the study were: 1) to obtain estimates of the incidence and prevalence of stroke; 2) to provide data on types of stroke, medical histories, signs and symptoms, diagnostic procedures, laboratory tests, and length of hospital stay and survival following the attack; and 3) to develop estimates of the economic costs of stroke.

### Findings Described

Among the many findings described by the new survey are the following:

- In 1976, an estimated 411,000 Americans were hospitalized because of an acute stroke. In the same year, some 1.7 million Americans previously hospitalized for stroke were still alive.
- In 1976, 71.3 percent of acute stroke attacks occurred in people aged 65 years and over.
- The age-adjusted incidence rates of stroke are 44 percent higher in men than in women.
- Approximately half of those who have an acute stroke when less than 65 years old will live for 5 more years after the stroke. In older age groups, the percentage surviving for 5 more years drops sharply: 34.5 percent of those aged 65 to 74, 9 percent of those aged 75 to 84, and 7.4 percent of those 85 and above.
- The average length of hospital stay for stroke in 1975-1976 was 17.6 days.
- The total costs of stroke—due to both health care expenses and income lost because of illness—are estimated at \$7.36 billion per year.
- The overall rate of incidence of initial stroke attacks is declining.

These and other findings from the survey are expected to serve as a basis for planning clinical programs and treatment centers where stroke can be more thoroughly studied and treated.

*The National Survey of Stroke* is edited by NINCDS investigator, Dr. Frederic D. Weinfeld, and has been issued as Monograph Number 75 by the American Heart Association. □

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