

the



# Record

U. S. DEPARTMENT OF HEALTH, EDUCATION, AND WELFARE

May 3, 1977  
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NATIONAL INSTITUTES OF HEALTH

## Grantee Dr. John West Wins Ernst-Jung Prize For Pulmonary Research



From 1973 to 75 Dr. West was chairman of the NIH Cardiovascular and Pulmonary Study Section and from 1973 to 76 served as a member of the Physiology Committee of the National Board of Medical Examiners.

Dr. John B. West, professor of medicine and bioengineering and head of the Division of Pulmonary Physiology at the University of California (San Diego) School of Medicine, has been named recipient of the 1977 Ernst-Jung Prize for medicine.

Dr. West, a grantee of the Division of Lung Diseases, National Heart, Lung, and Blood Institute, is only the second recipient of this prize.

### Ceremony Is in Hamburg

He will receive it in May at ceremonies to be held in Hamburg, Germany, by the Jung Foundation for Science and Research in recognition of his distinguished contributions to medical knowledge about the physiology of the lung in health and disease.

His contributions include the development of methods for measuring regional differences in lung blood flow and ventilation resulting from various pulmonary disorders.

These inequities are often important factors in inadequate blood oxygenation and acute respiratory failure resulting from disease.

A native of Australia, Dr. West received his M.D. from the University of Adelaide and his Ph.D. from the University of London,

(See DR. WEST, Page 8)

## Sec. of HEW Califano Presents Awards To Six NIH'ers at April 27 Ceremony

Six NIH staff members received honor awards from HEW Secretary Joseph A. Califano, Jr., at the Department Honor Awards Ceremony held on Wednesday, April 27, in the Departmental Auditorium.

The DHEW Distinguished Service Award—the highest Departmental honorary recognition conferred on civilian employees—was presented to Dr. DeWitt Stetten, Jr., NIH Deputy Director for Science, and to Dr. Giovanni DiChiro, head of the Section on Neuroradiology, Surgical Neurology Branch, National Institute of Neurological and Communicative Disorders and Stroke.

### 3 Win Highest PHS Honor

The Distinguished Service Medal, the Department's highest award made to PHS Commissioned Officers, was presented to Assistant Surgeon General Donald B. Tower, Director of NINCDS; Medical Director Jack Orloff, director of the



Dr. Stetten

Division of Intramural Research, National Heart, Lung, and Blood Institute; and Medical Director Harvey J. Alter, chief of the Immunology Section, Clinical Center.

Secretary Califano presented a Secretary's Special Citation for Ten Outstanding Employees of the Year Award to Marceline H. Lee, administrative assistant, Laboratory of Biochemical Genetics, NHLBI.

The award recognizes outstanding performance by employees in

clerical, administrative, technical, professional, and general support positions. Ms. Lee is the first NIH employee to receive this award.

Dr. Stetten was cited for "14 years of outstanding leadership at NIH, most recently as Deputy Director for Science and Chairman of the Recombinant DNA Molecular Program Advisory Committee."

Dr. DiChiro's citation is for "eminent services to mankind by advancing neuroradiologic concepts and techniques through pioneer work in cisternography and spinal cord angiography and innovative application of computer assisted tomography to improve the detection and diagnosis of neurological disorders."

Dr. Tower is being recognized for his "discoveries in the diagnosis and treatment of seizure disorders and for his leadership in reorganizing the focus of the NINCDS."

Dr. Orloff is being honored for "distinguished leadership of a program of general laboratory and clinical research in heart, blood vessel, lung, and kidney diseases."

### Dr. Alter Recognized

The award of the Distinguished Service Medal to Dr. Alter is based



Dr. DiChiro

(Continued on Page 5)

## Dr. Maxine Singer Gives May 18 Mider Lecture: Monkey Genome, SV-40

Dr. Maxine F. Singer, head of the National Cancer Institute's Nucleic Acid Enzymology Section, will deliver the G. Burroughs Mider Lecture at 8:15 p.m., May 18



Dr. Singer came to NIH in 1957 as a postdoctoral fellow with NIAMDD, held posts in that Institute, and joined NCI in 1974.

in the Clinical Center's Masur Auditorium.

Dr. Singer will speak on Monkey Business: Sequences in the Monkey Genome and Their Interaction with Simian Virus 40 DNA.

She will describe her studies of the nucleotide building blocks of DNA (deoxyribonucleic acid) in the genes of normal monkey kidney cells and cells infected with the monkey virus SV-40.

This research has led to an understanding of the organization of highly repeated nucleotide sequences in the monkey genome and the nature of the interaction between the virus and its host.

After receiving her Ph.D. degree from Yale University in 1957, Dr. Singer was a postdoctoral fellow at the National Institute of Arthritis, Metabolism, and Digestive Diseases. She then joined the staff of the NIAMDD Section on Enzymes and Cellular Biochemistry.

In 1971 she continued her research as a visiting scientist with the department of genetics at the

(See DR. SINGER, Page 6)

# the NIH Record

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## Men Vote, Add Women To NIH Golf Association; Next Match Is May 16

The R&W-sponsored NIH Golf Association (sometimes referred to as the men's golf club) admitted women to its ranks at its April 11 board meeting.

At the same time the board ruled that women must play from the men's tees. So far, only one—Tina Walter of NCI—has done so.

The board also agreed to take advantage of an R&W rule by allowing each team to sign up three players not eligible for R&W membership, provided each pays a \$2 R&W "participation fee."

## Others May Still Join

Over 100 members are already signed up, but there is still room on the seven teams for more.

Interested persons should call president Larry Willhite, Ext. 63381. Names and telephone numbers of team captains will be published soon in the R&W Smoke Signals.

One hundred and three Association members toured the Bretton Woods golf course in Seneca on

## FAES Health Insurance Open Season To Be Held

The Association of Visiting Fellows Group Hospitalization Program, sponsored by the Foundation for Advanced Education in the Sciences, will be having open season for new subscribers from May 16 through June 15.

Coverage will be effective July 1 this year. Current subscribers may change their coverage to "family" at this time.

NIH postdoctoral fellows, special fellows, visiting fellows, associates, scientists, and guest workers who have not yet enrolled in the program will be eligible for coverage with certain restrictions because of joining late.

Applications and premiums are due in the FAES insurance office by June 15.

For further information, call Nancy Baucom, Ext. 65272.

April 20 in the year's first tournament, and many broke 90. Complete results will soon be listed in the R&W Smoke Signals.

The Association will hold its next tournament at Montgomery Country Club, Laytonsville, on May 16.

See your team captain for details—and, there's still time to sign up to be a new member.

## May 9-14 Is Registration For UMC Summer Courses

The Upward Mobility College summer semester will be June 6-Aug. 6.

Registration for the summer semester will be held May 9-14.

Registration forms may be obtained from the UMC Office.

## Pedestrians, Drivers: Right-of-Way, Safety Are BOTH Important!

Many NIH motorists are oblivious to the numerous crosswalks on the reservation and of pedestrian rights.

Drivers should remember that a pedestrian has the right-of-way at controlled intersections and in marked crosswalks.

When motorists fail to yield to pedestrians in marked crosswalks, they not only violate a traffic law but also commit a very dangerous practice.

The pedestrians' right-of-way in crosswalks is governed by Maryland law. That law states:

*When traffic control signals are not in place or not in operation the driver of a vehicle shall yield the right-of-way, slowing down or stopping if need be to yield, to a pedestrian crossing the roadway within the crosswalk when the pedestrian is upon the half of the roadway upon which the vehicle is travelling, or when the pedestrian is approaching so closely from the opposite half of the roadway as to be in danger.*

## Pedestrian Is Responsible

All of the blame, however, cannot be placed on the motorist. The pedestrian must share some of the responsibility, too. Many NIH pedestrians do not seem to pay as much attention as they might to their own safety.

The law further states that no pedestrian shall suddenly leave a curb or other place of safety and walk or run into the path of a vehicle which is so close that it is impossible for the driver to yield.

## Yield at Crosswalks

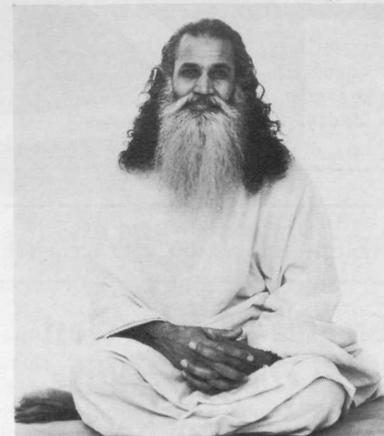
Also, every pedestrian crossing a roadway at any point other than within a marked crosswalk or within an unmarked crosswalk at an intersection shall yield the right-of-way to all vehicles upon the roadway.

Some pedestrians believe that if they are in a crosswalk, approaching traffic from both directions must halt and remain stopped until the crosswalk is free of all pedestrians.

This erroneous impression has caused some pedestrians to lodge unjustifiable complaints about motorists not yielding the right-of-way.

Motorists need to slow down or

## Yoga Master Will Speak On Medical Relevancies



The Swami has spoken on the relationship of yoga and medicine at the American Medical Students Association and at the Johns Hopkins School of Hygiene and Public Health in a series on alternative approaches to health and healing.

Sri Swami Satchidananda, a master and teacher of Integral Yoga, will speak on the relationship of yoga to current medical practices and research, at noon on Thursday, May 19, in the Masur Auditorium.

Integral Yoga emphasizes the development of physical and mental health and all other aspects of the individual.

## Studied in India

Before coming to the U.S. in 1966, Swami Satchidananda studied holistic approaches to medicine in India, and in the past year started the Integral Health Services, a health care center in Conn.

This center, operated by a staff of 14 specialists including two Western-trained physicians, emphasizes the yogic approach to disease prevention and cure.

stop only when the pedestrian is upon the half of the roadway upon which the vehicle is travelling or when the pedestrian is approaching so closely from the opposite half of the roadway as to be in danger.

Nevertheless, a motorist should yield even when the pedestrian does not technically have the right-of-way.

The Protection and Security Management Branch asks employees to slow down, drive carefully, and make the reservation as safe as possible for everyone.

## USDA Graduate School Offers Schedule of Summer Courses

The U.S. Department of Agriculture Graduate School is offering a summer schedule of day, evening, and correspondence courses.

Courses offered include: calligraphy, photography, accounting, data processing, and many others.

Classes meet one night a week for 10 weeks beginning June 13,

unless otherwise noted in the schedule.

Mail registration for evening classes ends May 20. In-person registration will be held June 6-11 in the USDA Patio, North Bldg., 14th and Independence Ave., S.W., Washington, D.C.

For information, call 447-4419.

I'm happy I had the savings bonds to cash in for this prepaid vacation.

HAWAIIAN MILTON RESORT HOTEL



**NIH Visiting Scientists Program Participants**

4/1—Dr. Belinda Barclay-White, United Kingdom, Southwestern Field Studies Section. Sponsor: Dr. Peter H. Bennett, NIAMDD, 1440 Indian School Road, Phoenix, Ariz.  
 4/10—Dr. Yasuo Moritsugu, Japan, Laboratory of Infectious Diseases. Sponsor: Dr. Robert Chanock, NIAID, Bg. 7, Rm. 301.  
 4/18—Dr. Yoshihide Suzuki, Japan, Environmental Toxicology Branch. Sponsor: Dr. John A. McLachlan, NIEHS, Research Triangle Park, N.C.

**'Positive Attitudes' Bring Success to Secretaries And Week-Long Program**

A standing-room only audience in Wilson Hall, on Monday, April 25, heard Dr. Estelle R. Ramey, professor of physiology at Georgetown University Medical Center, answer the question, How Far Can a Secretary Advance at NIH?  
 Known nationally as a supporter of the women's rights movement, Dr. Ramey received a standing ovation from the more than 200 women (and dozen men) who attended the kick-off for Secretaries Week, April 24-30, at NIH.

Her frank analysis of the historical and sexist reasons for discrimination against female workers pointed out that women have been led to believe that they are born more "fragile, with less educable potential," and smaller in all respects (therefore needing "smaller wages and job titles").

The answer to the question in the speech title, she said, will become evident as soon as secretaries develop a more positive attitude about themselves and their worth on the job.

Speakers, films, and other activities were offered in many B/I/D's throughout the week.

Sally Linn, CPS, secretary to the Director of NIAMDD, attributed the success of the 1977 observance to the cooperation and enthusiasm of the Federal Women's Program Coordinator's office, the EEO coordinators and counselors, the NIH Women's Advisory Committee delegates, the NIH Secretaries Task Force, the Division of EEO, and NIH management.

**Evening Workers Meeting Scheduled May 16 by EEO**

The NIH EEO Advisory Council will hold an open meeting for evening employees on Monday, May 16, in Wilson Hall, Bldg. 1 at 3 p.m.

In addition to questions from the floor at the meeting, written questions may be submitted ahead of time to the council chairperson, Levon Parker, Bldg. 31, Room 8A19.

**Savings Bond Campaign Conducted This Month Plans Fete on May 25**

The 1977 U.S. Savings Bond Campaign, now in progress, started May 2 and runs through May 31.  
 To add interest to this year's campaign, a combo from the U.S. Air Force will play some toe-tapping music in Masur Auditorium on May 25.

Also on the program are three 10-minute Treasury Department movies, starring such notables as Jack Klugman and Tony Randall (the Odd Couple), Raymond Massey, and William Conrad.

The program will run continuously from 11:30 a.m. to 1:30 p.m., giving early and late lunchers time to drop in during their official lunch period to see and hear the show.

The NIH Recreation and Welfare Association has donated an \$18.75 E bond and a \$10 gift certificate to be given as a raffle prize to a person who either started a new bond allotment or added to an existing one during the May campaign.

Organization canvassers will distribute a raffle ticket to each eligible person.  
 An R&W \$5 gift certificate will be given to the canvasser who signs up the most new and increased bond allocations.

The rewarding aspect of such a campaign is that all concerned benefit. The person purchasing bonds develops a cash reserve; the Federal Government receives funds to finance worthwhile projects (even research grants and contracts, and payroll checks); and the 340 canvassers have the satisfaction of helping more people save.

The best canvassers benefit most by helping more people save. The only persons who may not be so happy are the State and local tax collectors who can't get a share of E Bond earned interest.

Laurene Clarindon from the Office of the Secretary of HEW spoke to the canvassers on April 19, assuring them that the payroll staff is primed for increased bond withholding forms and promises to process the transactions quickly and accurately.  
 Leon Schwartz, NIH Associate Director for Administration, is this year's campaign vice-chairman. Sidney Gottlieb from the Division of Management Policy is the campaign coordinator.

**B/I/D Coordinators Bldg. Room Tel.**

NCI	Harold Smith	Blair	728	427-7298
NHLBI	Jean Stern	31	4A21	63533
NLM	Jerome Kerkhof	38	M-110	66491
NIAID	Bea Benson	10	11N238	62750
NIAMDD	Lois George	31	9A46	65765
NICHD	Marjorie Neff	31	2A04	61848
NIA	Mike Machesko	31	4B54	69121
NIDR	Frances Pettinato	31	2C36	66621
NIEHS	Dr. Donald McRee	10	1014A	8-629-3382
NIGMS	Dr. Howard Jenerick	WW	9A18	67008
NINCDS	John Jones	31	8A49	62575
NEI	Dr. Helmsen	31	6A52	65301
CC	Dr. Phillippe Cardon	10	1N206	62167
	Kathleen Durey	10	1N222	62167
DCRT	Doren Vest	12A	3021	64647
FIC	Janice Weymouth	31	2C07	64627
DRR	Norman Mills	31	5B09	65175
DRG	Evrett Straley	WW	455	67954
DRS	Ralph VanWey	12A	4047	65401
OD	Mary Virts	1	136	62511
OC	Winifred Welch	1	313	64713
OPPR	Doris McQuire	WW	304	67541
OPPE	Florence Hassell	1	233	61454
DPM	Mildred Easton	1	3	62424
DMP	Susan Edwards	1	210	62461
DAS	Louise Ryman	31	1C02	65556
DES	Anthony Gaetano	12A	4018	66391
DEO	Violet Odom	31	2B40	66301
DCG	Cristine Smith	31	1B19	64637
ADA	Sid Gottlieb	1	216	62461

**10 Applicants Are Selected as Management Interns**

Ten individuals from nearly 300 applicants have been selected for the 1977 NIH Management Intern Program.

Six of the 10 selected are currently employed at NIH.

Ann Houser, a chemist, is at present working in the Molecular Disease Branch, NHLBI. Sandra Lindsay, with a masters degree from the University of Maryland, is employed as a secretary in the Adult Development and Aging Branch, NIA.

A biologist, Bill Mowczko has been working in the Laboratory of Biochemistry, NCI, since 1972. Betty Nordan, another chemist, is now working in the Laboratory of

Kidney and Electrolyte Metabolism, NHLBI.

Jane Zagata, a relative newcomer to NIH, has been working as clerk-steno in the Office of Program Analysis and Scientific Communications, NIAMDD. Jerry Elliott, a microbiologist, has been working as a staff assistant in the Office of the Coordinator for Collaborative Research Carcinogenesis Area, NCI.

Those selected will begin 12-month internships in late May, rotating through four 3-month assignments during that period.

NIH supervisors who wish to provide training in general administration, budget and finance, con-

Now that you have retired - what are you going to do?  
 First, cash in my E Bonds now that I'm in a lower tax bracket and get a break on my Fed. taxes - then I'm going to buy a boat.



tracts, grants, personnel, program and management analysis, and supply management may contact the MI Coordinator, Career Development Branch, Ext. 66211.



**MARATHON MEN**—NIH'ers who competed in the 26-mile annual Boston Marathon April 18 included, (left, r to l) Allen Lewis, Drs. Clifford Steer, Harvey Klein, Ian Hill, and George Martin. Among NIH'ers who entered as members of the American Medical Jogging Association were (right, l to r) Drs. Ronald Richardson, Ronald Crystal, and Marc



Lippman. Dr. Samuel Berkman (not in photo) also ran. Dr. Hill was the first NIH'er to finish, in 3 hours, 14 minutes. The race, commemorating Paul Revere's ride, is mainly recalled by the runners as being hot as well as long, with the temperature in the upper 70's and little shade. Ice cubes provided by spectators were especially refreshing!

## Self-Help Programs of NICHD Women Are Becoming a Model for Other B|I|D's

A job interview is, for many people, cause for much anxiety. But, some women face unique problems. For example, how should an interviewer's inquiry about child care arrangements be handled?

Should a woman explain that a relative cares for her children? Should she protest that unless the agency is providing day care assistance, the question is in violation of the 1964 Civil Rights Act?

Or, should she explain that she doesn't feel the question is relevant and that she prefers to talk more about the vacancy?

Employees of the National Institute of Child Health and Human Development learned at a recent seminar that the latter response is more prudent.

### First Group, Invites Men

The self-help workshop was one of several sponsored by the Women's Organization of NICHD. Not only is this the first women's group at the Institute level, it also invites men to become members.

Assertiveness training, tips on filling out a job application, review of NIH training opportunities, and discussion of rape prevention are other programs presented to NICHD by the women's organization.

Some programs are open to all NIH employees. Last year, for example, Drs. Jessie Bernard and Jean Lipman-Blumen, eminent sociologists, authors, and lecturers, delivered a talk *Today's Women: Values and Options*. On another occasion, Ms. Barbara Fiss, Civil Service Commission, spoke about *Flexitime—flexible work scheduling*.

Helen Walter, NICHD statistician and the group's former chairperson, along with the Executive Committee, sought and obtained official recognition for the group so that all NIH employees could attend the programs.

Ms. Walter, now a delegate to the NIH Women's Advisory Committee, said the meetings were well-received, due to the commitment of last year's program chairperson, Jean Onufrey, NICHD technical information specialist. Because of such success, the group is becoming

a model for women in other Institutes, according to Ms. Walter.

The women have other ideas for making work more rewarding. For instance, they are preparing a resource book including work histories and exhibits, to demonstrate the art of leaping over hurdles to better paying and more satisfying work. The package will also provide sources of peer support and advice.

The organization is not limited to preventive measures; they have taken an advocacy position as well. When one woman faced possible downgrading, the group responded immediately.

### Establishes Coordinator

Working with Kay Standley, research psychologist and past NICHD women's program coordinator—a unique position established by the group—the women helped their co-worker build her case. Clearly, the group is not all talk and no action.

The NICHD group resulted from the labor of several key persons. In 1972, Patricia Gabbett (now Newman), then NICHD information officer, worked with the Institute's EEO office and felt there was a need to address women's special concerns.

### Idea Began in 1972

With the support of then NICHD Director Dr. Gerald LaVeck a task force was formed. Prior to and during this time Adele H. Nusbaum, the first NIH Federal Women's Program Coordinator, was surveying HEW women about their problems and interests.

Later, she wrote the first NIH women's action plan which suggested a structural basis for the NICHD group.

According to health scientist ad-

## May Named High Blood Pressure Month; Conference Assesses Education Program

Over 750 health educators from around the country convened April 13-15 at the Washington Hilton Hotel to attend the National Conference on High Blood Pressure Control.

The meeting was called to assess the effectiveness of the National High Blood Pressure Education Program and to determine those areas where more concentrated efforts could be made to bring high blood pressure under control in the U.S. through education of the general public, the medical professions, and those involved in the health care delivery system.

### Focus on Control

The conference focused on long-term patient management and high blood pressure control in the work setting.

The conference also examined educational approaches for both professionals and patients, the use of nurses to manage patients, community programs in long-term management, the use of the Health

administrator Jane Showacre, current chairperson of the NICHD group, Ms. Nusbaum offered much needed support and guidance.

With the endorsement of NICHD Director Dr. Norman Kretchmer, and due to membership chairperson Jeanette Miracle's effort, the group continues to strive and thrive.

Newly appointed NICHD women's program coordinator Rayna J. Blake is busy planning a roster of highly qualified women for nomination to advisory councils and other posts in the Institute.

Additionally, she will collaborate with EEO coordinator Theodore Blakeney, Ms. Walter, and administrative technician Ruby Green, also NICHD alternate representative to the NIH women's group, which advises NIH Director Dr. Donald S. Fredrickson through the NIH FWPC.

Current officers are: corresponding secretary, Anita Agnew; alternate recording secretary, Nancy Boretos; recording secretary, Miriam Greer; second vice-chairperson, Jeanette Miracle; and first vice-chairperson, Nancy Russo.

Care Team to improve therapy compliance, and mass communication resources to support community high blood pressure control programs.

Dr. Marvin Moser, chief of cardiology at the White Plains, N.Y., Hospital Medical Center and senior medical consultant to the National High Blood Pressure Education Program, addressed the conference.

He declared that effective long-term management can lower blood pressure to normal or near normal levels in 80 to 85 percent of patients, reduce the risk of stroke, heart and kidney failure, halt progression of the disease to malignant hypertension, and prolong life.

He added that control of high blood pressure is widely regarded as a major opportunity to improve the Nation's health, yet only 30 percent of the 23 million Americans who have high blood pressure are adequately protecting their health and lives from the consequences of this serious but usually symptomless disease.

### Congressman Notes Opportunities

Congressman Charles B. Rangle of New York in his keynote address stated that the work setting provides immense opportunities not only for screening and detection programs but for treatment and education programs as well.

He added that this approach would cut cost and ensure that a vast number of people would be adequately screened for possible hypertension.

The Third National Conference on High Blood Pressure Control was a preamble to this, High Blood Pressure Month—which aims to encourage the 10 million Americans who know they have high blood pressure, but have dropped out of treatment, to resume therapy.



L to r: Jane Showacre, the group's chairperson, discusses program plans with Marian Park, NIGMS visitor; Helen Walter, NICHD delegate to the NIH Women's Advisory Committee, and Jean Onufrey. Center: Helen Stafford, Division of Personnel Management, OD, conducts a job interview workshop with

Helen French, Sharon Snyder, Martin Peller, and George Lawrenz. Right: Rayna Blake, NICHD women's program coordinator (second from l), talks with NICHD Women's Organization members Darlene Levenson (back to the camera), Jeannette Miracle, and Tina McIntosh.

## Chicago-Japan Collaboration Develops Method to Purify Human Erythropoietin

Using urine specimens, University of Chicago scientists have obtained a pure sample of erythropoietin, a hormone that stimulates production of red blood cells.

The sample of human erythropoietin, eight times more active than previously reported pure sheep erythropoietin samples, will make possible a detailed study of erythropoietin's chemical and biological properties, says Dr. Charles K.-H. Kung, a University of Chicago biochemist.

If the chemical structure of erythropoietin can be discovered, a means may be found to create synthetic erythropoietin to treat anemia, in which there is a reduced ability of the blood to carry oxygen to the tissues.

When there is a need for increased red blood cells to deliver oxygen to tissue, the body normally increases the amount of circulating erythropoietin.

The hormone then "instructs" the blood-forming tissue (mainly in the bone marrow) to increase the production of red blood cells.

### Formed in Kidneys

Erythropoietin is formed principally in the kidneys of humans and other mammals. Some victims of kidney disease are unable to produce their own body erythropoietin and require careful management and occasional blood transfusions.

Availability of enough pure hormone or synthetic erythropoietin might facilitate the treatment of anemia in kidney patients. At present there is not enough of the pure hormone for any treatment purposes.

Knowledge of how erythropoietin acts to form red blood cells from progenitor cells would be useful in the study of biological differentiation.

With erythropoietin available, this process can now be studied in progenitor cell cultures in the laboratory. Knowledge of normal and abnormal differentiation is needed to understand how cancer, birth defects, and other diseases may occur.

Dr. Kung, senior scientist in the Franklin McLean Memorial Research Institute in The University of Chicago Division of the Biological Sciences and The Pritzker School of Medicine, spoke April 7 at the annual meeting of the Federation of American Societies for Experimental Biology in Chicago.

Co-authors of Dr. Kung's paper were Dr. Takaji Miyake of Kumamoto University Medical School, Kumamoto, Japan, and Dr. Eugene Goldwasser, professor in the department of biochemistry, the McLean Institute and the undergraduate College at The University of Chicago.

Much more pure hormone will be needed before the structure of

erythropoietin is finally established, says Dr. Kung.

Urine from specific kinds of patients is at present the only practical source of erythropoietin.

The best source for research purposes is the urine of aplastic anemia patients in which substantial portions of the erythropoietin spill over into the urine and are excreted.

### Collect Urine in Japan

Dr. Miyake and his collaborators at Kumamoto University collected 2,550 liters (676 gallons) of urine from aplastic anemia victims and prepared a crude concentrate of erythropoietin.

Dr. Miyake brought the crude erythropoietin to the McLean Institute, where, in collaboration with Drs. Kung and Goldwasser, a pure sample was prepared over a period of 1½ years.

The total yield—about 8 mg. (0.0003 oz.)—represented about 20 percent of the initial amount of hormone in the crude concentrate.

The process of purification required the use of seven different methods in succession and resulted in a sample of human erythropoietin with a potency of about 70,000 units per mg. of protein.

Isolation of pure erythropoietin from the blood of anemic sheep was first reported by Drs. Goldwasser and Kung in 1971.

### Presence Long Known

The existence of mammalian erythropoietin has been known for at least 70 years, according to Dr. Goldwasser, but it is present in such minute traces that until 1971 it was never isolated in pure form.

The assay procedures required to carry the work to this point were developed by Dr. Leon O. Jacobson, currently the director of the McLean Institute; and Drs. Goldwasser, Walter Fried, and Louis Plzak at The University of Chicago. These methods led to their finding in 1957 that the kidney is the major source of erythropoietin.

The McLean Institute is operated by The University of Chicago under a contract with the Energy Research and Development Administration.

The current research was supported by the ERDA grant to the McLean Institute and by a grant from the National Heart, Lung, and Blood Institute to The University of Chicago Comprehensive Sickle Cell Center, directed by Dr. James Bowman.

## SIX NIH'ERS RECEIVE HEW AWARDS



Dr. Tower



Dr. Orloff



Dr. Alter

(Continued from Page 1)

on his "exceptional research efforts elucidating the causes of post-transfusion hepatitis and practical means of markedly reducing their risk."

On behalf of the Department,

## 3 Dental Investigators Are Research Award Recipients in Denmark

Several National Institute of Dental Research scientists were honored at the 55th general session of the International Association for Dental Research in Copenhagen, Denmark, in March.

The association represents 53 countries and has 5,000 members who are engaged or interested in dental research or in other disciplines related to oral health.

### Dr. Nylén Honored

Dr. Marie U. Nylén, NIDR's acting director of intramural research, was named recipient of the Isaac Schour Memorial Award in the Anatomical Sciences.

Dr. Nylén, a native of Denmark who received her degree from the Royal Dental College in Copenhagen in 1947, was honored for her electron microscopic studies of the mineralization of tissues.

She is recognized as an international authority on the structure and properties of dental hard tissues and on the effects of tetracycline on enamel formation.

### New Award Made

An Award for Dental Caries Research was presented by the Association for the first time this year. Dr. Paul H. Keyes of NIDR's Laboratory of Microbiology and Immunology and Dr. Robert J. Fitzgerald of the V. A. Hospital, Miami, Fla., received this award for their fundamental contributions to the research on dental decay.

In the early 1960's, Drs. Keyes and Fitzgerald isolated and identified organisms that cause dental caries in laboratory animals.

Their experimental animal research also demonstrated that

Secretary Califano recognized the accomplishments of two NIH staff members who have been honored with major non-DHEW awards.

Dr. D. Carleton Gajdusek, NIN-CDS, was awarded the 1976 Nobel Prize for Physiology or Medicine, and James A. Hickey received the Outstanding Achievement Award for Improvement of Financial Management in the Government.



Ms. Lee

### NLM Lists Summer Hours From May 31 to Sept. 2

The National Library of Medicine's hours from May 31 through Sept. 2 will be 8:30 a.m. to 5 p.m. Monday through Saturday.

NLM always closes Sundays.

Upcoming holidays are:

Saturday, May 28;  
Monday, May 30;  
Saturday, July 2;  
Monday, July 4;  
Saturday, Sept. 3; and  
Monday, Sept. 5.

dental caries is a transmissible disease. At the time these research findings were reported, Dr. Fitzgerald was affiliated with NIDR's Laboratory of Microbiology.

Both Dr. Keyes and Dr. Fitzgerald have continued their dental research interests and have received numerous honors and awards for both their collaborative and individual studies which have provided additional insight into the dental decay process.

## Science Writers Seminar on Endocrinology Hears of Social and Medical Applications

Science writers gathered at NIH on March 14 and 15 for a "state of the science" briefing on the latest findings in endocrinology at a seminar sponsored by the National Institute of Arthritis, Metabolism, and Digestive Diseases and the Endocrine Society.

In welcoming the writers, NIAMDD Director Dr. G. Donald Whedon said that "growth in understanding of the human endocrine system and the role it plays in nearly every aspect of human life has been swift, often exciting, and always interesting."

### Hormones Are Essential

In a keynote talk on the importance and relevance of endocrinology to medical and social problems, NIAMDD grantee Dr. Grant W. Liddle of Vanderbilt University told the audience of about 50 writers, scientists and others that while some hormones are essential for life, others are what make life worth living.

Dr. Dorothy T. Krieger of the Mount Sinai School of Medicine, who planned the seminar, presented an overview of its purposes and also discussed experimental work on neurotransmitter regulation of the release of pituitary hormones inhibited or stimulated by hormones produced by the brain.

### New Approaches Used

She pointed to the possibility now seen by endocrinologists that new therapeutic approaches to control of changes in neurotransmitter function can effectively be used to ameliorate disorders such as Cushing's disease, acromegaly, and hypothalamic amenorrhea, to determine the state of pituitary function and to aid in diagnosis of neuroendocrine disease.

An important concern of a number of the researchers who spoke was development of new approaches to contraception.

Dr. Daniel R. Mishell, Jr., of the

University of Southern California School of Medicine spoke of the "extreme importance" of developing long-acting methods of administering steroid contraceptives.

### Dire Need Cited

He said such methods are direly needed in less developed countries, because of problems of administering forms of birth control that women will accept through relatively untrained personnel.

Treatment of cancers in tissues in which growth is regulated by hormones (such as the breast, the prostate and the body of the uterus) through removal of their hormonal support was discussed by Dr. Mortimer Lipsett, Director of the NIH Clinical Center.

NIAMDD investigator Dr. Bruce Weintraub spoke on the subject of "ectopic hormone syndromes," which occur when a cancerous tissue produces a peptide hormone that the tissue doesn't normally produce.

He described the use of ectopic

## Endorphins (Peptides) Are Topic of Salk Institute's Dr. Guillemin at Seminar

Dr. Roger Guillemin, a grantee of the National Institute of Arthritis, Metabolism, and Digestive Diseases spoke at its recent seminar on endocrinology.

He is widely known for pioneering work in the identification and characterization of endorphins—new peptides, recently isolated from the brain and pituitary, which appear to have biological activities identical to those of opiates.

Dr. Guillemin told science writers that these and other peptides seem to be involved both in normal human behavior and in mental illnesses.

### Peptides in Nervous System

The peptides, tiny proteins first associated with hypothalamic functions in the brain, are now known to be present throughout the central nervous system in previously unsuspected amounts.

He termed it "remarkable" that "none of the classical concepts, theories, or explanations proposed for diseases in the fields of neurology, psychiatry, or neuropsychiatry even acknowledges the presence in the brain of these peptides."

He pointed to the revolutionary opportunities for using the great variety of peptides and related chemical structures that have been synthesized (analogs) in clinical and behavioral therapies.

## DR. SINGER

(Continued from Page 1)

Weizmann Institute of Science, Rehovot, Israel. Dr. Singer joined NCI in 1974.

She served on the editorial board of the *Journal of Biological Chemistry* from 1968 to 1974 and is currently on the editorial board of *Science* magazine.

The G. Burroughs Mider Lectureship was established in 1968 by the scientific directors to honor Dr. Mider for his distinguished service to NIH.

The Lectureship is awarded by the NIH Director, on the advice of the scientific directors, to a scientist who has contributed significantly to biomedical research at NIH.

hormones and other ectopic "polypeptides" as cancer markers to monitor the effectiveness of anti-tumor therapy.

### Mechanisms Clarified

Dr. Marc Lippman of the National Cancer Institute described research aimed at clarifying mechanisms whereby steroid hormones stimulate and inhibit growth through interaction with receptor molecules in the cytoplasm of cells.

He said that the presence of receptors correlates with the responsiveness of tumor samples to therapy with steroid hormones *in vitro*.

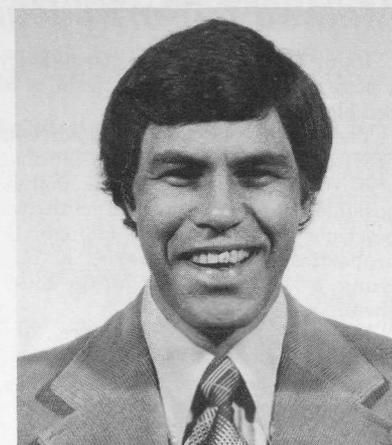
### Tumors Contain Receptors

"Similar studies on human breast cancer tumor, according to Dr. Lippman, "... have indicated that about two-thirds of primary tumors contain estrogen receptor."

He stated that the absence of receptor is almost invariably an indication that hormone therapy will not be effective, while the presence of receptor is a sign that a tumor might be responsive to the therapy.

Dr. Griff Ross, deputy director of the CC and currently president-elect of the Endocrine Society, described work of the All India Institute of Medical Sciences toward

## Dr. Charles Grieshaber Named Grants Associate



Dr. Grieshaber first came to NCI in 1969 as a postdoctoral fellow.

Dr. Charles K. Grieshaber, a former NIH staff fellow, has joined the Grants Associates Program. Developed by NIH in 1961 and administered by the Division of Research Grants, the Program prepares biomedical and behavioral scientists for roles as health scientist administrators.

Dr. Grieshaber first came to NIH in 1969 as a postdoctoral fellow in the Laboratory of Biochemistry, Division of Cancer Biology and Diagnosis, National Cancer Institute, remaining with the Division as a senior staff fellow until he joined DRS in 1976.

Dr. Grieshaber attended Allegheny College, Meadville, Pa., from 1959 to 1961, receiving the B.A. degree from Gannon College, Erie, Pennsylvania in 1964.

He earned the M.S. degree in zoology in 1966 and the Ph.D. degree in physiology in 1969 from the Pennsylvania State University, where he was a NASA predoctoral trainee from 1966 to 1969.

development of a contraceptive vaccine.

Dr. C. Alvin Paulsen of the University of Washington School of Medicine discussed various efforts to develop contraceptive agents for men through reduction of sperm production by inhibiting pituitary gonadotropin secretion.

### Topics Listed

Other topics included: the contributions of basic research to clinical neuroendocrinology, the effects of brain peptides and of non-peptide hormones on brain function, the role of growth substances in normal and neoplastic growth, and the significance of endocrinology to medical and social problems.

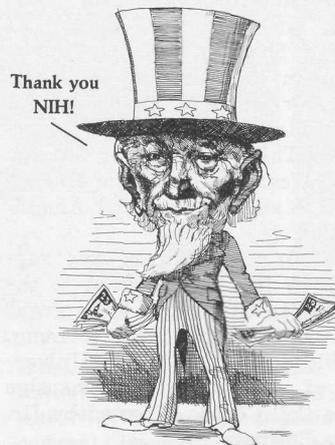
Health is the first of all liberties, and happiness gives us the energy which is the basis of health.—*Henri Amiel*

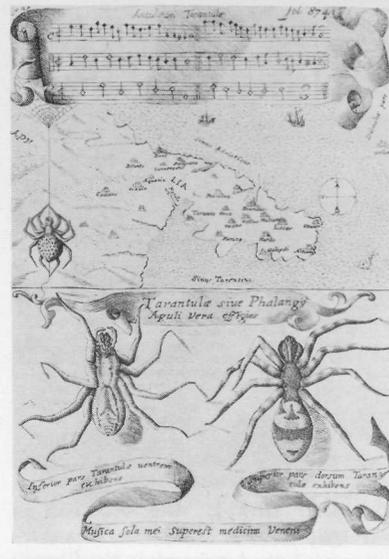
### Dr. Gorovitz Will Present Philosophy Lecture May 17

Dr. Samuel Gorovitz, chairman of the department of philosophy at the University of Maryland, will speak on Philosophical Perspectives on Issues in Health on Tuesday, May 17, in Bldg. 31, Conference Room 6 from 3 to 5 p.m.

The meeting, open to all interested, is sponsored by the Committee on Science and Human Values. Comments and questions from the audience will be welcomed.

Dr. Gorovitz is the author of *Moral Problems in Medicine*, and past director of the Moral Problems in Medicine Project, Case Western Reserve University.





Several examples of tarantellas were preserved by Athanasius Kircher, a physician and musicologist in the mid-17th century. When performed, this music (1) was believed to cure tarantism by inducing the victim to participate in a frenzied dance. A type of tarantella dance (1673) to music, typically involving short phrases played over and over with increasing tempo, induced the tarantism

victims (above, 1) to rise from their stupor, sometimes waving swords in the air as they whirled and jumped in a frenzied dance, often for several days, after which the patients appeared to be healed. A wood engraving from Harper's Weekly (r) shows a concert for mental patients in N.Y. in 1874.

## Program Experiment Links Calif. Students With NIH by Satellite

Two groups of students and faculty members, 3,000 miles apart, were linked Wednesday, April 20, via satellite to talk informally with NIH Director Dr. Donald S. Fredrickson about the implications of recombinant DNA research and the current NIH guidelines that are being discussed nationwide.

### Developed by FASST, Others

The experimental program was developed by the Forum for the Advancement of Students in Science and Technology in cooperation with the National Aeronautics and Space Administration and NIH.

The project utilizes the Communications Technology Satellite stationed more than 22,000 miles above the earth.

The test program provides new opportunities for students to have direct access to science policy makers and demonstrates the economic feasibility of using audio/visual satellites for educational purposes.

The program, originating from the National Library of Medicine's

## NIH Library Removing Unneeded Books, Making Room for Recent Works

The NIH Library is embarking on a weeding project to remove old, unused, and unneeded books from the Library's collection.

At the same time the weeding project will be coordinated with the ongoing but more intensified program of adding the latest research-level biomedical publications to the collection as expeditiously as possible.

The Library Advisory Committee has approved the following guidelines to be followed in weeding the book collection:

1) Books more than 25 years old will be removed from the collection, with the exception of classic works which have enduring value or historical significance. Also excepted are all NIH publications as well as

Lister Hill Center, was transmitted from the NIH campus in Bethesda to the NASA/Ames Research Center at Moffett Field, Calif., via CTS.

## NLM Opens a New Exhibit on Medicine and Music

Medicine and Music is the subject of an exhibit at the National Library of Medicine, open to public viewing from May 2 to Aug. 26.

The Library has drawn on its extensive historical resources illustrating the long history of belief in the power of music to drive out evil spirits or to summon beneficent ones.

non-NIH publications which are not likely to be held widely in other libraries.

2) Books more than 5 years old that were published in languages other than English, French, German, or Russian will be removed, except for classic works which have enduring value or historical significance. However, all foreign language dictionaries will be retained.

3) Multiple copies of all books more than 5 years old will be removed. Only one copy will be kept in the collection except for titles which are in the Reference Collection and which also have a circulating copy.

4) In most cases the earlier editions of a book will be removed from the collection and only the latest editions retained.

The Library staff will also be calling on Library consultants for assistance in making decisions on weeding in special subject areas.

### 1-Month Waiting Period

All books to be withdrawn from the collection will be shelved in a specially designated area of the Library for a 1-month period. This step is designed to give NIH personnel an opportunity to view these proposed withdrawals and make recommendations on books that they feel should not be withdrawn.

The NIH Library welcomes comments from NIH personnel on the weeding project as well as recommendations for new books to be added to the collection.

Visitors may learn about tarantism, a disease believed in the 17th and 18th centuries to be caused by the bite of the tarantula spider and to be cured by music (the "tarantella") which induced the victim to participate in a frenzied and curative dance.

The exhibit also features an audio recording excerpted from Marin Maris's *Tableau de l'Operation de la Taille* (a musical description of a lithotomy operation for the removal of stones), composed for viola de gamba and harpsichord and published in 1725.

The composer, who had survived this operation a few years earlier, gives musical expression to the patient's feelings at each step of the surgical procedure.

Books of the 17th to 20th centuries also show the development of theories attempting to explain the physiological effects of music.

Notes on the relationship between medicine and music through the ages will be found in a brochure, *Medicine and Music*, available without charge at the exhibit or by writing to the NLM Office of Inquiries and enclosing a self-addressed mailing label.



FASST president Allan Ladwig (l) and a group of students and faculty members in Bethesda listen as Dr. Fredrickson talks via satellite with another group in Calif. Some of the technical equipment is seen in the foreground.

### FTS?

"Everybody else uses it to place personal calls."

"I know lots of people who use the FTS system for unofficial business."



THE LAW IS: "Government telephones are provided for government use only."

## NHLBI's Dr. Bartter, Council Member, Grantees Win Modern Medicine Awards

Dr. Frederic C. Bartter, chief of the National Heart, Lung, and Blood Institute's Hypertension-Endocrine Branch, is one of 12 recipients of *Modern Medicine* magazine awards for Distinguished Achievement.

Recipients of the annual awards are selected by deans of medical schools, leaders of professional organizations and societies, and members of the *Modern Medicine* editorial boards.

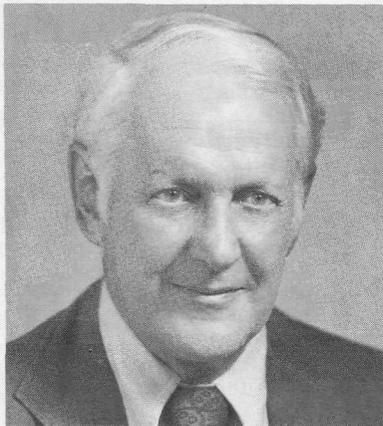
Dr. Bartter is cited "for his comprehensive analyses of the complex inter-relationships between endocrine organs and kidney function."

### Kidney Research Cited

Dr. Bartter is internationally known for his research helping to clarify the nature and operations of the renin-angiotensin-aldosterone system and its effect on fluid balance, electrolyte balance, and blood pressure in the body.

Other research by Dr. Bartter and his colleagues has centered on antidiuretic hormone, and its role in fluid balance, and on parathyroid hormone, thyrocalcitonin, and other humoral regulators of calcium and bone metabolism in health and various disease states.

In 1962 he defined a disorder



A member of the PHS since 1942, Dr. Bartter has worked in such diverse fields as tropical medicine, biochemistry, medicine, pediatrics, and endocrinology. Also an expert on mushrooms (mycology), he has conducted research on thioctic acid as an antidote to poisoning by *Amanita phalloides*, "the death cup."

characterized by a "population explosion" of renin-secreting kidney cells, excessive aldosterone production, and potassium depletion.

This disorder, subsequently called Bartter's syndrome, proved to be relatively common once Bartter's group had developed reliable procedures for detecting it.

Dr. Bartter joined NHLBI in 1951 as chief of the Endocrinology Branch and served from 1970 to 1976 as the Institute's Clinical Director. In addition he has served since 1965 as associate professor of pediatrics at Howard University and as clinical professor of medicine at Georgetown.

Author or co-author of more

than 300 publications and abstracts, he has previously received the Sandoz Contemporary Man in Medicine Award, the Meritorious Service Medal of NIH, fellowship in the Royal College of Physicians, and an honorary membership in the Endocrine Section of the Royal College of Medicine.

### Grantees Receive Awards

• Dr. William H. Daughaday, professor of medicine and director of the Metabolism Division, Washington University School of Medicine, St. Louis, was cited "for his keen observations of basic hormonal activity, notably growth hormone, and his development of clinically useful immunoassay techniques."

He receives research support from NIAMMD and DRR.

• Dr. Stanley J. Dudrick, professor and chairman of the department of surgery at the University of Texas Medical School and a consultant in several Texas medical centers, was cited "for his contributions to developing parenteral hyperalimentation and other refinements in nutritional and metabolic support for surgical patients."

Dr. Dudrick serves on the Diet, Nutrition, and Cancer Program Advisory Committee of NCI.

• Dr. Harvey Feigenbaum, a grantee and former trainee of NHLBI, now professor of medicine and senior research associate of the Krannert Institute of Cardiology, Indiana University Medical Center, was cited "for anticipating the clinical value of ultrasonography and developing echocardiography for

### Register Now for NIEHS Science Seminar June 2-3

The first Science Seminar of the National Institute of Environmental Health Sciences will be held in Chapel Hill, N.C. on Thursday and Friday, June 2-3.

The seminar will bring together scientists and administrators involved in environmental health research, as well as interested Congressional staff and science writers, and acquaint them with NIEHS research.

To attend the seminar, contact Janet Riley immediately at: NIEHS, P.O. Box 12233, Research Triangle Park, N.C. 27709; or call (919) 549-8411, Ext. 3216 (commercial) or 629-3208 (FTS).

## DR. WEST

(Continued from Page 1)

where he served until 1967 as director of the Respiratory Research Group at the Royal Postgraduate Medical School.

In 1960-61, he accompanied Sir Edmund Hillary, first conqueror of Mount Everest, on a Himalayan expedition. Dr. West measured pulmonary function in the climbers at altitudes up to 24,500 feet, very near the limits of man's tolerance without supplementary oxygen.

At the University of California, San Diego, Dr. West served as chairman of the faculty of its School of Medicine from 1972 to 1973.

His awards and honors include the Josiah H. Macy, Jr. Foundation Faculty Scholarship award and the Felix Fleischner Lecturer post of the Fleischner Society.

### 3 NIH'ers Elected to NAS

Among 60 new members elected to the National Academy of Sciences on April 26 are three NIH'ers:

Dr. Richard M. Krause, Director of the National Institute of Arthritis and Infectious Diseases;

Dr. Elizabeth Neufeld, chief of the Section on Human Biochemical Genetics, National Institute of Arthritis, Metabolism, and Digestive Diseases; and

Dr. Herbert Tabor, chief of the Laboratory of Biochemical Pharmacology, also in NIAMDD.

Details will be published in the next issue of *the NIH Record*.

noninvasive diagnosis of cardiac defects and diseases."

• Dr. Roger C. L. Guillemin, research professor and chairman of Laboratories for Neuroendocrinology, The Salk Institute, San Diego, is the recipient of support from NIAMMD, DRR, and NICHD.

He is cited "for his pioneering work in neuroendocrinology, including the isolation and synthesis of hypothalamic hormones, the identification of endorphins, and the discovery of somatostatin."

• Drs. Kimishige and Teruko Ishizaka are cited "for their discovery of immunoglobulin E, a significant step toward understanding the causes and mechanisms of allergy." He is O'Neill Professor of medicine and microbiology, Johns Hopkins University School of Medicine, and an NIAID grantee. She is an associate professor in the same department.

• Dr. Hans Popper, NIAMDD grantee and Gustave L. Levy Distinguished Service Professor, Mount Sinai School of Medicine, City University of New York, wins

## 2 Danish Scientists Join Scholars at Stone House



The Drs. Orskov, who are visiting Bethesda for the first time, are pursuing continued research in the Bureau of Biologics, on the NIH campus.

Drs. Frits and Ida Orskov of the International Escherichia Center (WHO), Statens Seruminstitut, Copenhagen, Denmark, have joined the Fogarty International Center Scholars-in-Residence Program.

They will reside at Stone House until July 1, and will be working in the laboratory of Dr. John B. Robbins, director of the Division of Bacteriological Products, Bureau of Biologics, FDA.

The Orskovs are world-renowned investigators in the field of the taxonomy of gram-negative enteric organisms, particularly *E. coli*.

his award "for making the liver his own research province, thus adding immeasurably to medicine's knowledge of the organ's physiology and pathology."

• Dr. Donald W. Seldin, professor and chairman, department of medicine, University of Texas Southwestern Medical School at Dallas, and recipient of support from NHLBI and DRR, is cited "for his extensive studies of renal physiology and electrolyte metabolism, as well as his influence as a teacher and philosopher."

• Dr. Robert W. Wissler is cited "for his meticulous investigations into the nature of atherosclerosis, particularly his demonstration of the reversibility of atherosclerotic lesions."

Recipient of support from NHLBI and DRR, he is Donald N. Pritzker Professor of Pathology and Director of the Specialized Center of Research in Atherosclerosis, University of Chicago, Division of the Biological Sciences and Pritzker School of Medicine.

The other two award winners are Dr. William H. Masters and Virginia Johnson Masters, co-directors of the Reproductive Research Foundation, St. Louis, "for integrating physiologic and behavioral disciplines to study human sexuality and applying their findings to the treatment of patients with sexual problems."