

the



Record

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

April 28, 1970
Vol. XXII, No. 9

NATIONAL INSTITUTES OF HEALTH

Dr. Earl Stadtman Wins NAS Microbiology Award

Dr. Earl Stadtman, chief, Laboratory of Biochemistry, National Heart and Lung Institute, was presented with the National Academy of Sciences Award in Microbiology.

He was honored "in recognition of outstanding contributions in the field of microbial biochemistry."

The sum of \$5,000 was given to him at ceremonies held yesterday, April 27, in the Great Hall of the Academy Building in Washington, D. C. Dr. Stadtman, the second recipient to win the award, was chosen by fellow members of the Academy.

Dr. Stadtman has frequently been cited for his basic studies of complex control mechanisms. He developed an integrated theory to explain how these mechanisms regulate chemical reactions occurring simultaneously within any given cell of the body at any given time.

His studies of cell metabolism are important to the understanding of how a balance is maintained between the breakdown of food stuffs to yield energy plus simple building blocks on one hand, and the

(See DR. STADTMAN, Page 3)

Poly I:C, Helpful in Combating Viruses, May Play Role in Treating Some Diseases

By Judy Roberts
NIH Information Intern

A substance known in biochemical shorthand as Poly I:C is creating a stir among medical investigators. It has already been proven that



Dr. Maxine Singer devised a technique to obtain sufficient highly-purified Poly I:C.

Guam Legislature Commends NINDS for Research on Prevalent Island Diseases

The Legislature of the Territory of Guam has commended the National Institute of Neurological Diseases and Stroke "for its extremely important research work in the debilitating and widely prevalent Guam diseases of amyotrophic lateral sclerosis and Parkinsonism-dementia."

NINDS has been conducting research there on these disorders since 1954. For the past 13 years,



Edward Terlaje, Vice-Speaker of the Legislature of Guam (c), presents the citation to Dr. Brody (l). Dr. James Schnur, medical officer in charge of the NINDS Center on Guam participates in the ceremony.

NINDS has maintained its Research Center in the Guam Memorial Hospital which serves the island.

Dr. Jacob A. Brody, chief of the Epidemiology Branch, Collaborative and Field Research, NINDS, who received the Legislative citation, has headed this research program since 1965.

He designs the studies, assigns scientists to the Center, employs temporary consultants in specialized fields, and supervises a permanent Guamanian staff of medical technicians who have had 4 years of training by the U. S. Navy.

Dr. Brody spends about 3 months of the year on the island. His Bethesda office is filled with colorful posters noting "America's day begins in Guam, USA"—our westernmost territory.

Frequency Noted

The two neurological diseases occur with unusual frequency on Guam. Amyotrophic lateral sclerosis, known as "Lou Gehrig's disease" in the U. S. and as "lytico" on Guam, is characterized by progressive weakening of the muscles and usually results in total paralysis with death in 3 or 4 years.

Parkinsonism-dementia is a disorder that combines mental deterioration with progressive muscular stiffness and rigidity of the body.

Either the mental or muscular signs may occur first and progress slowly before the other symptoms appear. Death occurs within 5 years.

Parkinsonism-dementia patients with mental impairment appear apathetic and withdrawn and rarely complain of other symptoms.

For this reason their families may attribute such behavior to normal aging, although they may be only in their 40's or 50's.

Although it is similar in some respects, this disorder should not be confused with Parkinson's disease which occurs in the States.

Studies to establish a possible viral origin for the disorders have

(See GUAM, Page 7)

Marston Tells Biologists Biomedical Research Is 'Ringing Success'

The biomedical research endeavors of this nation constitute a "ringing success story," Dr. Robert Q. Marston, NIH Director, told a national conference of biologists April 13.



Dr. Marston

Speaking at the Biochemistry Special Session of the Federation of American Societies for Experimental Biology in Atlantic City, N.J., Dr. Marston noted that biomedicine, with all other science, has been under attack and suffering from reduced support in recent years.

Nevertheless, the NIH Director told the group, the present climate for NIH programs is better than it was a year ago and this fact is reflected in the 1971 budget.

"There is continued effort inside and outside of Government to find a reasonable basis for the future level of biomedical research support," he said.

"I strongly urge that in the interim we accept, especially for basic biomedical research, a firm public policy to continue to reverse the downward trend in research support, and to maintain the program

(See DR. MARSTON, Page 7)

2 NICHD Publications Selected for Distribution

Two publications of the National Institute of Child Health and Human Development have been selected for the U. S. Exhibit during the International Conference on Social Welfare to be held Sept. 6-12 in Manila.

Perspectives on Human Deprivation: Biological, Psychological, Sociological and The Acquisition and Development of Values were chosen for distribution by the U. S. Committee of the International Council on Social Welfare, Division of International Activities, DHEW.

Both books complement the Conference's theme, "New Strategies for Social Development-Role of Social Welfare."

the NIH Record

Published biweekly at Bethesda, Md., by the Publications and Reports Branch, Office of Information, for the information of employees of the National Institutes of Health, Department of Health, Education, and Welfare, and circulated by request to interested writers and to investigators in the field of biomedical and related research. The content is reprintable without permission. Pictures are available on request.

The NIH Record reserves the right to make corrections, changes or deletions in submitted copy in conformity with the policies of the paper and the Department of Health, Education, and Welfare.

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NIH Television, Radio Program Schedule

Television

NIH REPORTS

WRC, Channel 4
NOTE: Until further notice **NIH REPORTS** will be seen at 1 a.m. Wednesday—following the Johnny Carson Show.

April 29

Dr. Frank W. Hastings, chief, Artificial Heart Program, NHLI
 Subject: Artificial Heart Program (Part 3)

May 6

Dr. Murray Goldstein, associate director for Intramural Programs, NINDS
 Subject: Parkinsonism and L Dopa (Part 1)

Radio

DISCUSSION: NIH

WGMS, AM-570—FM Stereo 103.5—Friday evenings—About 9:15 p.m.

May 1

Dr. Adrian Parsegian, DCRT and Dr. Barry Ninham, DCRT
 Subject: What Holds Cells Together (Repeat)

May 8

Dr. Stephan E. Mergenhagen, chief, Laboratory of Microbiology, NIDR
 Subject: Bacteria in Periodontal Disease

Interview takes place during intermission, Library of Congress Chamber Music Series.

Ruth C. Habel, Wife of Retired NIAID Scientist, Dies in La Jolla, Calif.

Ruth C. Habel, 61, wife of Dr. Karl Habel, world renowned virologist who retired from the National Institute of Allergy and Infectious Diseases in 1967, died Thursday, April 9 at her home in La Jolla, Calif. Her death was caused by a stroke.

Mrs. Habel was a native of Baltimore. She attended Alderson Broadus College in Philippi, W. Va., and earned her nursing degree at Philadelphia General Hospital School of Nursing.

For a number of years Mrs. Habel was on the staff of FASEB. While Dr. Habel served as a PHS commissioned officer at NIH, the family lived in Bethesda.

They moved to La Jolla in October 1967, when Dr. Habel accepted a position in the Department of Experimental Pathology at Scripps Clinic and Research Foundation.

In addition to her husband of the home address, 6412 Avenida Manana, La Jolla, Mrs. Habel is survived by a son, Kurt Habel, a daughter, Gretchen Hill, and five grandchildren.

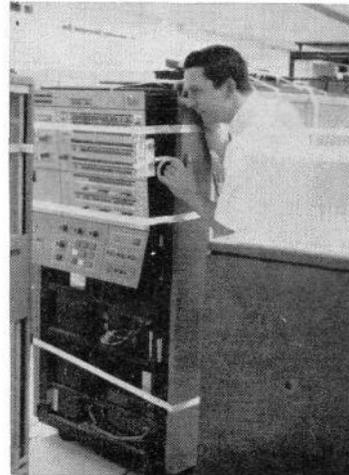
Communicable Disease Center Offers Lab Training Courses

The Laboratory Division of the National Communicable Disease Center issued a schedule of laboratory training courses in Atlanta, Ga. from July 1970 to June 1971.

Classes vary from 6 days to 4 weeks.

Application forms may be obtained from Training Office, Laboratory Division, NCDC, Atlanta, Ga. 30333.

Capable, Small Computer Leaves NIH for Haven In the Weather Bureau



This is the Model 40 computer all wrapped up and ready to go. Now weather prognostications may really have that ring of truth.

The capable and modern IBM 360 Model 40 computer which did yeoman service for the Division of Computer Research and Technology, has left the reservation. It was too small.

It had been installed in 1966—to support the Division of Research Grant's information system—IMPAC—which establishes and maintains data on extramural research programs.

But, although the computer has gone, it has not been put out to pasture. Instead, arrangements were made by the General Services Administration to transfer the computer to the Weather Bureau.

Under the auspices of GSA surplus equipment, such as the Model 40, is offered to other Government agencies. Such transactions result in budgetary savings to the agencies requiring and accepting the equipment.

After DCRT had installed larger

Radio Programs Stress Pharmacology Research

"This Drug Age," a series of weekly Tuesday evening half-hour radio programs developed by the American University Broadcasting Center and National Institute of General Medical Sciences, will continue the discussion on the use of drugs, stressing pharmacological research.

The series is broadcast at 8:30 p.m. over radio station WAMU-FM, 88.5.

Programs covered such topics as: what drugs are and their effect on man; the medical and psychological reasons for taking drugs, and the legal and ethical problems involved in prescribing drugs.

On Tuesday, May 5, the program will be entitled "The Pharmacist." Listeners will hear Dr. Edward Feldman, director, Scientific Division, American Pharmaceutical Association, and Milton Skolaut, who, on July 1, will be appointed Director, Pharmaceutical Services, Duke University Hospital.

Mr. Skolaut was formerly chief, CC Pharmacy Department.

"Pharmacology and the Federal Government" is the topic for the Tuesday, May 12 broadcast.

Taking part in the discussion will be Dr. Bryon B. Clark, director, NIGMS Pharmacology-Toxicology Program; Dr. John J. Burns, vice-president for Research, Hoffman-LaRoche, Inc., and Dr. Leon I. Goldberg, professor of Pharmacology and Medicine, Emory University.

Programs are available to National Education Radio Network stations, Armed Forces Radio Service outlets, and the Voice of America.

and more versatile computers in Bldg. 12, it was possible to place remote terminals in the Westwood Building. Now DRG can enter jobs and process data from off the reservation.

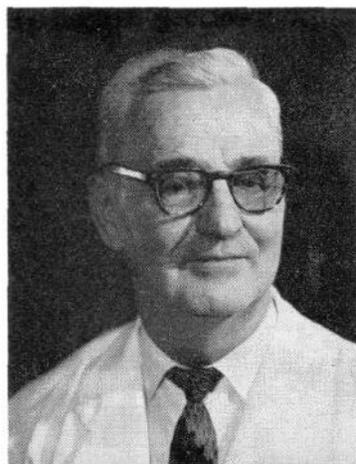
And the Model 40, too small to support these terminals, was released to the Weather Bureau.

General Schedule Annual Salary Rates for 1970

Grade	Per annum rates									
	1	2	3	4	5	6	7	8	9	10
GS-1	\$4,125	\$4,262	\$4,399	\$4,536	\$4,673	\$4,810	\$4,947	\$5,084	\$5,221	\$5,358
GS-2	4,621	4,775	4,929	5,083	5,237	5,391	5,545	5,699	5,853	6,007
GS-3	5,212	5,386	5,560	5,734	5,908	6,082	6,256	6,430	6,604	6,778
GS-4	5,853	6,043	6,243	6,443	6,633	6,823	7,023	7,213	7,413	7,603
GS-5	6,548	6,766	6,984	7,202	7,420	7,638	7,856	8,074	8,292	8,510
GS-6	7,294	7,537	7,780	8,023	8,266	8,509	8,752	8,995	9,238	9,481
GS-7	8,089	8,368	8,648	8,908	9,178	9,448	9,718	9,988	10,258	10,528
GS-8	8,956	9,255	9,554	9,853	10,152	10,451	10,750	11,049	11,348	11,647
GS-9	9,881	10,210	10,539	10,868	11,197	11,526	11,855	12,184	12,513	12,842
GS-10	10,869	11,231	11,593	11,955	12,317	12,679	13,041	13,403	13,765	14,127
GS-11	11,905	12,302	12,699	13,096	13,493	13,890	14,287	14,684	15,081	15,478
GS-12	14,192	14,665	15,138	15,611	16,084	16,557	17,030	17,503	17,976	18,449
GS-13	16,760	17,319	17,878	18,437	18,996	19,555	20,114	20,673	21,232	21,791
GS-14	19,643	20,298	20,953	21,608	22,263	22,918	23,573	24,228	24,883	25,538
GS-15	22,885	23,648	24,411	25,174	25,937	26,700	27,463	28,226	28,989	29,752
GS-16	26,547	27,432	28,317	29,202	30,087	30,972	31,857	32,742	33,627	.....
GS-17	30,714	31,738	32,762	33,786	34,810	.....	.....	.....	.....	.....
GS-18	35,505	.....	.....	.....	.....	.....	.....	.....	.....	.....

The new pay raise will be reflected in the check of April 28. The retroactive portion will be paid some time in May, according to the Office of Financial Management.

Gebhard Gsell Retires; With NCI for 22 Years



Mr. Gsell, the man who came to the U. S. for "a visit"—is returning to his Fatherland—42 years later. He will live in his native town of Wangen, in Germany, near the border of Switzerland and Austria.

Gebhard Gsell came to America in 1928 "just for an adventure"—42 years later he is returning to his home town in southern Germany to enjoy his retirement.

Mr. Gsell has served in the Laboratory of Pathology, National Cancer Institute, for the past 22 years. He began his career with NCI as a technician in the fields of histopathology and photomicrography.

However, since 1954 he has developed his photography into a full-time specialty.

A member of the Biological Photographic Association, Mr. Gsell has received several awards from that organization for outstanding work.

Honored for Photography

In 1963 he was honored by NCI for the superior quality of his photography. In presenting the award, Dr. Harold L. Stewart, then chief of the Laboratory of Pathology, said that each of Mr. Gsell's photomicrographs could be described as "a special work of art."

"All his work bears the stamp of an expert," Dr. Stewart said. "Scientists in this country and abroad have written praising his illustrations in the material published by the National Cancer Institute."

He also commended Mr. Gsell for his ingenuity in design and labor-saving photographic apparatus.

Mr. Gsell attended the Akademisches Gymnasium in Ehingen, Germany where he studied biology, physics, and chemistry. Following his graduation, he was persuaded by friends who lived here to visit the United States.

He planned a 2- or 3-year stay. That stay stretched into a 42-year residency highlighted in 1935 by

DR. STADTMAN

(Continued from Page 1)

processes by which these building blocks are assembled into more complex cell constituents on the other hand.

These control mechanisms are vitally important to the entire organism as well as to the individual cell.

Dr. Stadtman is noted also for discoveries concerned with mechanisms of energy transfer in biosynthetic processes, studies on the biochemical function of vitamins and their coenzyme derivatives in intermediary metabolism, and for his explanation of the pathways involved in the breakdown of complex molecules.

Dr. Stadtman was also chiefly responsible for originating the idea of building an anaerobic chamber—a facility designed to provide an oxygen-free environment for carrying out his research and other biological studies. This chamber, established in Building 3 in 1967, was an NIH first.

Dr. Stadtman received both his B.S. and Ph.D. degrees at the University of California.

He has been with NHLI since 1950, and has received many honors and awards.

His latest awards include the DHEW Distinguished Service Award, DHEW Superior Service Award, and the Hillebrand Award of the Chemical Society of Washington.

Hamilton Putnam Joins NIGMS Advisory Council

Hamilton S. Putnam has been named to the National Advisory General Medical Sciences Council.

Mr. Putnam is president and treasurer of a public relations agency. Since 1948 he has been executive director of the New Hampshire Medical Society.

He was administrative assistant to the late U.S. Senator Styles Bridges.

naturalization as an American citizen.

Prior to joining NIH, Mr. Gsell trained in histopathology under the late, renowned Dr. J. H. Globus in the Laboratory of Neuropathology at Mt. Sinai Hospital, New York City. He served as chief technician in that laboratory from 1936 to 1948.

Mr. Gsell has visited his homeland a number of times. However, when he returns there again this May, it will be one-way only.

He and his sister are building a home in Wangen, a town near the border of Switzerland and Austria where he was born and spent his boyhood.

Before he left Mr. Gsell was honored by friends and co-workers at a retirement party.

Bond Drive Opens May 1; Vice Chairmen Alerted To Benefits of Savings

The benefits of buying U.S. Savings Bonds were stressed at a recent meeting here by Sol Elson, HEW Acting Deputy Assistant Secretary for Administration.

The meeting to spur the efforts of Institute and Division Vice Chairmen was the initial step in the Bond Drive at NIH which opens this Friday, May 1.

Dr. Seymour J. Kreshover, NIDR Director and NIH Bond Drive Chairman, presided.

Richard L. Seggel, NIH Associate Director for Administration, spoke on the importance of the Drive and of the canvassers who serve under the direction of the I/D Vice Chairmen.

That canvassers should be familiar with the fundamentals of the campaign was advocated by Mr. Seggel.

Sell! Don't Pressure

"Urge them to sell, not to pressure the employee," he said.

"If we have good, conscientious, well-informed canvassers this year, the NIH Bond Drive is bound to be an outstanding success."

Mr. Elson emphasized the need for every NIH employee to be fully



Mr. Elson (right) spoke to I/D Vice Chairmen meeting here before the U. S. Savings Bond Drive begins at NIH May 1. Dr. Kreshover is chairman of this year's campaign.

aware of the advantages of owning U.S. Savings Bonds.

"Over half of the Department's employees now participate in the Savings Bond Program on a regular basis," he noted.

"Obviously, they have already recognized the special benefits of this savings plan which is one of the surest, safest means of insuring personal financial security.

"The fact that U.S. Savings Bonds are a liquid asset which can be redeemed after a minimal holding period, that they have built-in tax advantages for a more assured retirement or college education fund, and are fully guaranteed by the U.S. Treasury, makes them a

Health Film Depicts Grim Theme in Honolulu Setting

The Hawaiian background is lovely—the music is haunting—the subject is grim!

The Employee Health Service May movie stars Richard Boone in "The Mark Waters Story," a 28-minute film depicting the true life story of Mark Waters who developed lung cancer from smoking.

The film will be shown at: The Jack Masur Auditorium, Clinical Center, Wednesday, May 13, 11:30 a.m. and 12:15 p.m.

Westwood Building, Conference Room A, Thursday, May 14, 1:15 and 2 p.m.

Pharmacy, Veterinary Schools Participate in Grants Program

For the first time schools of pharmacy and veterinary medicine are participating in the BEMT grants program.

These schools were made eligible under the Health Manpower Act of 1968. Other health professions schools were also awarded institutional grants.

These grants will permit schools to increase both faculty staff and student body.

'good buy.'

Mr. Elson reminded the Vice Chairmen of the new 5 percent interest rate bonds now earn when held to maturity of 5 years 10 months.

He emphasized the advantages of the Payroll Savings Plan where you "pay yourself first."

Finch Heads Committee

HEW Secretary Robert H. Finch is Chairman of the Interdepartmental Savings Bond Committee and Chairman of the HEW Campaign. Mr. Elson is the Secretary's alternate on the committee.

Jay Ogden, Coordinator of the HEW Bond Drive, accompanied Mr. Elson and was presented to the meeting.

Ways to implement the drive were outlined by Herbert C. Christoferson, NIDR executive officer and Vice Chairman of the NIH campaign.

I/D Vice Chairmen are:

Marge Previtti, OD and ADA; Christine M. Morris, DRS; Raymond M. Jones, DBS; Constance Gall, NHLI; Murn K. Faucett, DRG; Ray Blackburn, BEMT; Mary E. Stone, DCRT; Geneva Larson, NIAMD; Kirk Weaver, NIDR; Dr. Robert Omata, FIC.

Also, Fred Lash, NCI; Dorsey Boyd, NIAID; Norman H. Smith, NLM; Earl Laurence, CC; James G. Hill, NEI; Charles DiGiacinto, NICHD; Daniel McMonagle, NIGMS; Winston Mani, NIEHS, and Chester Leslie, NINDS.

The bond drive ends June 19.

Calm Tempo of Lois Chang's Life Today Belies Her Exciting Escape from China

It's a long way from a temporary airport on the grounds of the Temple of Heaven in Peking to the National Library of Medicine in Bethesda, but Lois Chang has made the transition.

Her story starts over 20 years ago, December 1948, when the Communists were shelling Peking. Lois Chang, teaching in that city, had obtained a passport for the United States.

To slow the approach of the Communists in the Peking suburbs, the Chinese Nationalists destroyed the airport outside the city and erected a temporary airstrip on the grounds of a Buddhist temple.

With the influx of refugees from the North who camped on the temple grounds, the clamor for tickets grew louder. Mrs. Chang admits that she "had given up all hopes of ever leaving the city."

However, officials sold tickets to those with worthwhile reasons for leaving the country—she wanted to study in the United States. Finally, early in January, she flew to Shanghai.

There she remained one month. Because "the Communists did not reach Shanghai until May, there were few refugees then," Mrs. Chang explained.

Arrives in 1949

The final part of the trip was made on the General Gordon, a warship converted to a passenger ship after World War II, which arrived in San Francisco in February 1949.

As the daughter of an Episcopal minister, Lois Chang had lived in many places. Born in Foochow, China, she spent part of her childhood in British Columbia, and later in Shanghai. She graduated from the Catholic University in Peking.

In 1950, Mrs. Chang received her Master's degree in Library Science after attending Washington University and Rosary College.

She was working in the Library of Yale University when she met and married Dr. Yao Teh Chang.



Mrs. Chang, who originally worked with Chinese medical publications, now works primarily with English material.

Dr. Earl Beck to Head U.S.-Japan Program Section in NIAID Branch

Dr. Earl S. Beck was recently named head of the U.S.-Japan Program Section of the Geographic Medicine Branch, National Institute of Allergy and Infectious Diseases.



Dr. Beck

Dr. Beck will coordinate activities in the Program. These include planning and supporting research on diseases of special importance in Asian countries.

In his previous post as assistant chief of NIAID's Vaccine Development Branch, he was responsible for the Institute's rubella vaccine program.

Dr. Beck taught at the University of Connecticut, Pennsylvania State University, and Ohio Northern University. Later he worked as a microbiologist with the Biological Laboratories at Ft. Detrick, Md.

He joined the Division of Research Facilities and Resources as a scientist administrator in 1965, and a year later came to NIAID.

Dr. Beck received his B.S. degree from Muhlenberg College, an M.S. from the University of Connecticut, and his Ph.D. from Pennsylvania State University.

He served in the U.S. Navy from 1943 to 1946.

She later worked at the Georgetown University Library until 1955 when her daughter was born.

Mrs. Chang has been with NLM since 1961. She is now a librarian in the Cataloguing Section of the Technical Services Division.

She originally worked with Chinese medical publications. However, as she explains, "since about 1966, Chinese works have not been allowed out of Communist China, although some do come from Formosa and Hong Kong. I now catalog English publications, too."

Mrs. Chang's husband is with the Laboratory of Biochemical Pharmacology, NIAMD. He was one of the first scientists to grow rat leprosy bacilli in tissue culture and is now trying to grow human leprosy bacilli.

An American citizen since 1961, Mrs. Chang has never been back to the Chinese mainland. Her two brothers in this country are university professors. She has only rare contact with her two sisters who remained in China.

POLY I:C

(Continued from Page 1)

as research by private investigators, have shown that Poly I:C-induced interferon has been effective in combating the common cold, tumors which may be virus-related, and other viral diseases.

It is also thought that Poly I:C has other therapeutic actions in the body in addition to inducing interferon.

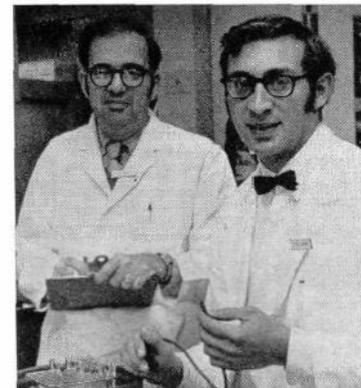
"The discovery of Poly I:C is a fine example of basic research leading to the discovery of compounds with important clinical uses," said Dr. David Davies, who reported the formation of Poly I:C in 1957 in studies conducted with Dr. Alexander Rich.

Dr. Davies directs NIAMD's Section on Molecular Structures of the Laboratory of Molecular Biology.

Explains Research

Dr. Davies said that when he was working with Poly I:C he had no idea that it might be important in treating diseases. His interest centered on finding a model that would throw light on the structure of ribonucleic acid (RNA) which directs the synthesis of protein.

Scientists began to investigate the effects of Poly I:C-induced in-



Drs. Talal (left) and Steinberg are studying the effectiveness of Poly I:C in collaboration with Dr. Baron.

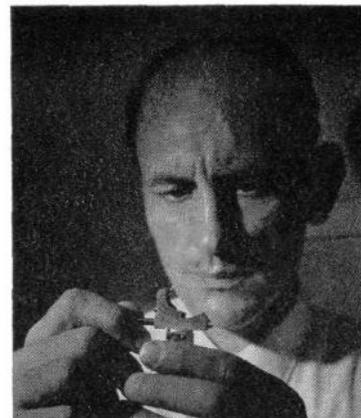
terferon about 1967—a short time after methods were devised that permit commercial production of Poly I and Poly C.

The key to production of these polymers hinged on the availability of the enzyme polynucleotide phosphorylase which directs the chemical reaction in which the units of the acids line up in long chains.

Dr. Maxine Singer, of NIAMD's Laboratory of Biochemistry and Metabolism, developed the method for obtaining the enzyme so she could study its mechanisms and reactions.

Her technique for obtaining the compound in highly-purified form in sufficient quantities for study is now used by most of the firms that manufacture the enzyme.

Drs. Alfred D. Steinberg and



Dr. Davies reported the formation of Poly I:C in 1957.

Norman Talal of NIAMD's Arthritis and Rheumatism Branch are collaborating with Dr. Samuel Baron, NIAID, in a series of studies using Poly I:C.

These researchers have discovered a method that theoretically could be useful in treating patients with systemic lupus erythematosus. Lupus usually affects women of childbearing age causing skin rash, fever, pleurisy, and often fatal kidney disease.

Dr. Steinberg said the treatment for human lupus would be based on recent research with a strain of New Zealand mice that naturally develop a lupus-like disease that has been used as a research model for human lupus. These mice carry a murine leukemia virus which had been thought important in causing the disease.

Antibodies Form

When NIH researchers gave Poly I:C to the New Zealand mice from the time of conception, they found that the mice were dying more quickly in spite of interferon levels adequate to protect against murine leukemia viruses. Poly I:C was causing formation of antibodies in these mice.

This discovery triggered the use of cyclophosphamide—a drug that kills sensitized cells. Cyclophosphamide given 24 hours after Poly I:C led to the death of cells sensitized by Poly I:C and reduced the formation of antibodies directed against nucleic acids.

These are the cells considered important in accelerating the course of the disease.

Combined Poly I:C-cyclophosphamide therapy worked even in older New Zealand mice already ill with kidney disease.

Thus, the possibility exists that it could unmask lupus in persons who are predisposed to the disease but do not yet have it, according to Dr. Steinberg.

This theoretically could arise from the widespread use of Poly I:C to treat viral infections. Steroid hormones and other drugs might be brought to bear on the unmarked lupus disease.

NIH Scientists Present Cancer Research Papers At Meeting in Phila.

National Cancer Institute scientists presented 45 papers on aspects of cancer research and treatment at the 61st Annual Meeting of the American Association for Cancer Research on April 9 to 11 at the Sheraton Hotel in Philadelphia.

Dr. Abraham Cantarow, Association president, gave the presidential address. The NCI researcher's topic was "The Role of the Association in a Changing World."

Dr. Paul H. Levine and a team of NCI scientists reported on results of the antigen-antibody tests for herpes-type virus (Epstein-Barr or EB virus) among patients with Hodgkin's disease, a cancer of the lymph system usually affecting young adults.

This is the same virus associated with Burkitt's lymphoma, a cancer that occurs most often among African children.

Blood Serum Samples Used

For the study, blood serum samples were obtained from 105 patients treated at NCI—63 with Hodgkin's disease—42 with other cancers of the lymph system. Normal serum samples were used as controls.

By indirect immunofluorescence tests, investigators detected larger amounts of antibody levels to EB virus in the blood serum of patients with Hodgkin's disease than those with other types of lymph cancer, and in normal controls.

Those patients treated for Hodgkin's disease had higher levels of antibody than newly diagnosed untreated patients.

Among the untreated patients, those with more advanced disease and whose tissue samples showed fewer white lymphocyte type cells, had higher levels of EB antibody than patients with less advanced disease.

Survival outlook was also related to EB antibody level in blood specimens of Hodgkin's disease patients.

In a 2-year followup study, seven patients with low levels of EB

Dental Institute's Beetle Colony Useful In Preparation of Dry Bone Specimens

By Sue Hannon

In spite of all rumors to the contrary, the beetles are alive and well and certainly are working together at the National Institute of Dental Research. Not the *Beatles* from Liverpool, but a colony of *Dermestes* beetles that aid in scientific research!



Teeth and supporting jawbone of a hamster from which all soft tissue has been removed by dermestid beetles. (A hamster tooth is about the size of a pin-head.)

antibody at time of admission to NCI were alive and free of disease symptoms without continued therapy. Nine of the 20 patients with high EB antibody levels had died.

All patients with early clinical stages of disease and low EB antibody levels were surviving; three of six patients with comparable clinical stage of disease, but higher antibody levels, died.

Antibody Levels Compared

Levels of antibody to other types of herpes virus did not appear related to presence or absence of Hodgkin's disease.

When all the blood samples were tested for antibodies to four other herpes viruses, no differences in antibody level between patient and control groups were found.

Although the number of patients in the study is small, findings suggest that Hodgkin's disease should be viewed as possibly induced by EB virus.

However, data on Hodgkin's disease and Burkitt's lymphoma do not rule out the possibility that the virus is an incidental passenger to both diseases.

Other NCI Researchers Noted

The NCI researchers working with Dr. Levine were Drs. Dharam B. Ablashi, Costan W. Berard, Paul P. Carbone, and Deward E. Waggoner.

At another session Drs. Harold T. Wepsic and Herbert J. Rapp, NCI Biology Branch, described a technique which allows them to transfer tumor immunity among an inbred strain of guinea pigs.

This method may help scientists learn how to transfer immunity to cancer patients to help them fight their disease.

Their technique confers immunity by injection of cells from immunized animals into the hearts of animals not immunized. The injection was usually well tolerated.

The line of guinea pigs used by the researchers, like human beings,

The larvae of these beetles perform a very useful function in preparing excellent dry bone specimens by quickly and thoroughly removing all soft tissues.

Until this method was adopted, researchers at NIH stripped tissue by hand or used papain digestion, both of which were much less satisfactory and more time consuming.

About 12 years ago, the Smithsonian Institution presented NIDR with a small glass jar containing the original colony of approximately 1,000 dermestid beetles.

As the use of the beetles in the preparation of skeletal specimens increased, the colony grew in numbers, and the original make-shift quarters were soon obsolete.

NIDR's present colony is estimated at over a million beetles and it is maintained in a stainless steel, temperature-controlled, walk-in box. The beetles require no water but must be fed continuously.

This tireless army of small, unimpressive, black insects can clean as many as 300 rat heads in 4 to 7 days.

Other Tasks Described

Other assignments that they have successfully completed include the preparation of skeletal tissues from the animal kingdom, ranging through horse, cow, buffalo, pig, monkey, possum, wolf, bear, rabbit, hamster, guinea pig, and mouse.

Raymond S. Catlett, medical biological technician in NIDR's Laboratory of Biological Structure, has been commended by NIDR and other Institutes for his assistance in preparing both research materials and Clinical Center pathology specimens using the dermestid beetles.

Facilities such as the Walter Reed Army Medical Center and the Johns Hopkins University call upon NIDR for the services of the beetles in special projects.

Upon request, NIDR has shipped small starter colonies of beetles to grantee institutions throughout the United States.

is capable of developing delayed hypersensitivity reactions on the skin which can be read in 24 hours, as contrasted with weeks or months for other tests.

The investigators said similar techniques might be adapted for cancer patients by perfusing tumor-immune cells fractions into the arteries surrounding tumors.

Other NCI scientists presenting papers were Dr. Donald L. Morton and Dr. Heine Hansen.

R&W Discount Books Offer Movie Coupons, Price Cuts to Members

The 1970 Discount Books of the NIH Recreation and Welfare Association—containing for the first time coupons for movie tickets—are being distributed to members.

Those employees who have already joined R&W in 1970 may pick up the Discount Book at the closest Association facility upon presentation of their membership card.

Employees who wish to join the R&W will receive the Discount Book and membership card upon payment of the annual fee of \$1.

Format Improved

A committee of R&W members redesigned its format and were responsible for its new, eye-appealing cover.

Up to \$16 may be saved on movie theatre tickets. The book has eight coupons to Roth's Theatres, admitting two for the price of one.

Discounts listed range from such items as cars for \$100 over cost and



Donald R. Watson (r), Supply Management Branch chief, headed the R&W committee responsible for the Association's 1970 Discount Book. He hands the first book to R&W President Benjamin Fulton.

driving lessons to wigs, restaurants, or tropical fish.

Another first this year for the R&W, several merchants in Montgomery Mall are offering discounts to Association members.

Members of the Parklawn R&W Association, composed of Public Health Service employees, will also receive the Discount Book. The NIH R&W is assisting this organization to obtain members.

The Parklawn Association is independent and not chartered under the NIH R&W.

Dr. Morton took part in a special symposium on "Immune Reactions to Cancer in Man." His paper was titled "Sarcomas and Other Tumors."

The symposium was headed by Dr. Herbert F. Oettgen, Memorial Sloan-Kettering Cancer Center in New York. The Center is partially supported with NCI funds.

Blood Bank at CC Reports On Units Donated in March

The Clinical Center Blood Bank reports that 334 units of blood were received from NIH donors in March, CC patients received 1,549 units.

Joining the Gallon Donor Club were: Wayne A. Broadhurst and Frank J. Liposky, both of ODA.

Dial the CC Blood Bank, Ext. 64508, for an appointment to donate. Benefit from the new pay plan.

Hwang Named to NICHD Post as Administrator

Dr. Joseph C. Hwang has been appointed health scientist administrator in the Perinatal Biology and Infant Mortality Branch, National Institute of Child Health and Human Development.

He came to NIH in 1965 as a member of DRG's Grants Associates Program and, later, was appointed senior evaluation scientist for Parasitology and the Microbiological Sciences.

Prior to his NICHD appointment



In 1964 Dr. Hwang was awarded an NIH Fellowship which enabled him to conduct research on the effects of malnutrition among children in Central American countries.

He was chief of the Scientific Evaluation Section, Office of Research Analysis and Evaluation, DRG.

Before joining NIH, Dr. Hwang was senior research parasitologist with the USDA in Beltsville.

He has also served as adjunct professor in the Biology Department at American University, and as medical parasitologist at Children's Hospital, Washington, D.C.

In 1964 Dr. Hwang was awarded an NIH Fellowship through Louisiana State University for research on the effects of malnutrition among children in five Central American countries.

Dr. Hwang received his M.S. in zoology and a Ph.D. in entomology from the University of Maryland.

Dr. Clifton Appointed To NIAMD Council

Dr. James A. Clifton has been appointed to a 3-year term on the National Advisory Arthritis and Metabolic Diseases Council.

Dr. Clifton is professor of Medicine and vice-chairman of the Department of International Medicine, University of Iowa.

He was attending physician at the Veterans Administration Hospital in Iowa City from 1952 to 1965. Since then he has served as consultant to the hospital.

Dr. Clifton, recently elected pres-

Diagnostic Ultrasound Can Provide New Highly Useful Tool to Speech Scientists

Diagnostic ultrasound can be a highly useful tool to the speech scientist, according to researchers at the University of Wisconsin. Their studies were supported by the National Institute of Neurological Diseases and Stroke.

Charles C. Shinn Named To Communications Post By Director of DRS

Dr. William B. DeWitt, DRS Director, has announced the appointment of Charles C. Shinn as Visual Communications Project Officer. Mr. Shinn was formerly chief, Medical Arts and Photography Branch, Division of Research Services.

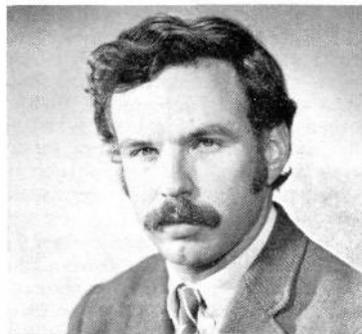
He will act as a consultant on visual communications and assist in developing visual material for HEW, other Federal agencies and groups with special interests in such material.

Mr. Shinn was a PHS consultant during the early planning stages of the Clinical Center.

Among his PHS projects was the designing and illustrating of the report *Air Pollution in Donora, Pennsylvania*.

Mr. Shinn prepared visual materials for programs presented to the White House and to Congress. He also worked on audio-visual training studies with the Air Research and Development Command, USAF.

In announcing Mr. Shinn's duties Dr. DeWitt emphasized the importance of this new type of professional audio-visual counselling service at NIH.



Dr. Henry P. Godfrey, Division of Biologics Standards, was awarded a William O. Moseley Travelling Fellowship for 1970-71 by the Harvard Medical School. He will continue his studies on delayed immune response at The Medical School, University of Birmingham, England.

ident of the American Gastroenterological Association, was on the editorial board of *Gastroenterology* from 1964 to 1968.

He was an NIH consultant on the Gastroenterology and Nutrition Training Grants Committee, serving as committee chairman.

This technique can provide the investigator with information on various physiological aspects of the vocal tract during speech without the use of devices in the tract itself.

It can provide unique information in many respects, is safe, and places no encumbrance on speech production.

Provides New Possibilities

Used separately or in combination with other monitoring techniques, diagnostic ultrasound can provide new research possibilities in both normal and pathological speech physiology by monitoring various physiological parameters within the head and neck during speech production.

Clinical studies were made over a 3-year period using diagnostic ultrasound to provide information on the configuration and motion pattern of the vocal tract in normal and abnormal speech production.

The process, similar to sonar-ranging, uses a piezoelectric crystal to both generate and detect the sound field.

One instrument (A-scope display) was used to measure the pharyngeal wall depth, and the other (B-scope display) to scan the trachea, make time-motion study of the moving lateral wall, and conduct Doppler monitoring of vocal-fold velocity.

Significant advantages of ultrasonic diagnostic tests are safety, rapidity, and that they involve no discomfort to the patient.

In certain instances ultrasonics was shown to provide much of the same information as radiography without the radiation hazards which have limited its use.

Techniques Explained

The technique of A-scope display is valuable primarily in locating the lateral pharyngeal wall.

The B-scope display, which presents a two-dimensional view, is used in the Time-Motion study to outline the neck wall, thyroid, and trachea, identify moving interfaces, and permit measurement of the extent of such motions, which is of utmost importance in studies of speech physiology.

Also the B-scope when combined with Doppler ultrasonic procedures is capable of measuring the velocity and displacement of the rapidly moving vocal fold not readily accomplished with other methods.

The work by C. A. Kelsey, F. D. Minife, and T. J. Hixon, University of Wisconsin, was reported in the *Journal of Speech and Hearing Research*.

Lucy Alexander Retires, Ends 20 Years Service In Fed'l Government

Lucy B. Alexander, secretary to Robert L. Ringler, Deputy Director of the National Heart and Lung Institute, is leaving NIH after 20 years of Federal service.

Mrs. Alexander came to NIH's Financial Management Branch in 1951, and later worked in the Division of Research Grants.

Prior to this she worked in the D. C. Public Library and served as a communications officer in the Navy Department from 1942 to 1946.

She was in the Division of Research Services from 1961 to 1962 and then joined NHLI where she remained until her retirement.

Mrs. Alexander and her husband, who will soon retire from the Montgomery County Police Department, plan to move to Myrtle Beach, S. C., where they are building a house.



Mrs. Alexander cuts the cake at her farewell party. NHLI Director Theodore Cooper presented her with a gold, heart-shaped pin.

Bibliographies at NLM, Available on Request, Now Include 91 Titles

Twenty-two new bibliographies on such current topics as toxicity of pesticides to man (11-69) or medicine in Vietnam (70-19) are now available at the National Library of Medicine.

Most of the citations listed cover the period from January 1967 through December 1969, but a few are through March 1970.

A list of the 91 Literature Search titles now available may be obtained by writing to the Literature Search Program, Reference Section, NLM, 8600 Rockville Pike, Bethesda, Md. 20014. Single copies of the bibliographies may be requested by number and title from the same source.

Other new bibliographies are: adverse effects of oral contraceptives (70-2); control of obesity by diet (70-16), and psychopharmacology in geriatrics (70-15).

DR. MARSTON

(Continued from Page 1)

level—that is current dollars plus inflation—even during these times of difficult constraints.”

Dr. Marston shared the platform with Dr. William M. McElroy, Director of the National Science Foundation. More than 20,000 scientists attended the FASEB session.

Cites Need to Participate

Dr. Marston urged the biomedical community to welcome the present “rather agonizing reexamination of the nature and level of support” for research and to participate actively in it.

If scientists do not, he said, “the distortions and outright mistakes that are being perpetrated may stand in the way of the very goals we seek in the names of science and humanity.”

He included in these goals “the future progress and even the survival of mankind.”

Dr. Marston observed that future historians will consider this era as a time when biomedical research was held up as a model for causes such as education, organization and delivery of health services, and the salvaging of the environment.

And for this reason, Dr. Marston continued, the historians may understand that “. . . some of us became confused or angry or frustrated by what we perceived as at least a failure to take this fact of success into account.”

Dr. Marston predicted that if the nation is ready to cope seriously with major long-range domestic problems, bioscientists are ready to change emphasis where indicated, and mobilize new resources in order to achieve major national objectives.

Stresses Bioscientist Role

But bioscientists, Dr. Marston said, are not “. . . economists or sociologists or political scientists or politicians. . . . We should be asked to serve primarily in our areas of expertise.”

Dr. Marston discredited a widely held “myth” that scientists “if they really wanted to” could solve social problems as easily as they have others, such as decoding DNA.



NIH Director Robert Q. Marston (center) hears HEW Undersecretary John G. Veneman (r) congratulate Dr. James R. Slagle, DCRT, after the Departmental Honor Awards Ceremony on April 10. Dr. Slagle was named one of the Ten Outstanding Young Men of 1969 by the Jaycees. Richard L. Seggel (l), NIH Associate Director for Administration, and Dr. Earl R. Stadtman, NHLI, received Distinguished Service Awards, and Dr. Margaret Pittman, DBS, won the Federal Woman's Award.

Those who believe this myth ask “If scientists can build an atomic bomb why can't they use the same approach to cure cancer?” he said.

This thought is based on confusion between the nature of the advancement of fundamental knowledge and the nature of engineering or technologic feats.

The biomedical scientist's realistic time scale and the unpredictability of acquiring new basic knowledge is often interpreted by non-scientists as arbitrary or indifferent, Dr. Marston observed.

Brands Charges False

Dr. Marston also branded as false other charges that have been made opposing the support of science. These include the views:

That biomedical science has distorted the nature of medical schools because faculty members are unresponsive to the urgent needs of their institutions; that the quest for new knowledge and its transmission to future generations has been “oversold;” and that biomedical research is not relevant to the health of the world's people.

“These generally false accusations must not go unchallenged,” he declared.

“More knowledge, not less, is requisite to improve future health service to university progress, and to the education of future generations.”

For the future, knowledge and wisdom in the area of health is almost totally dependent on the basic research conducted by the scientific community, he observed.

Throughout history, he said, investment in the future rather than attention to immediate problems has required exceptional leadership, tolerance, foresight and dedication.

“These qualities,” Dr. Marston noted, “are not lacking among the research community and the friends of biomedical science.”

GUAM

(Continued from Page 1)

been under way for several years and have so far proved negative. However, investigations continue, using new techniques as they are developed.

Recently, researchers have found evidence of a major error of dopamine metabolism in patients with Parkinsonism-dementia and suggestions of this same error in amyotrophic lateral sclerosis patients.

NINDS physicians have begun treating Parkinsonism - dementia patients with L-Dopa, a new drug that aids dopamine metabolism.

For the first time in Institute history on Guam clinical improvement in the invariably progressive course of this disorder has been noted.

A number of treatment regimens used by patients with amyotrophic lateral sclerosis have been unsuccessful in halting that disorder. As new medications become available which may be useful therapeutically they are systematically tested in ALS patients on the island.

Scientists Study Veterans

NINDS epidemiologists have followed veterans and construction workers from the United States who spent more than a year on Guam and find no increased incidence of either disorder.

They are also studying Guam natives who migrate to California to see whether they bring these disorders with them.

Studies to find some environmental factor on Guam which might cause these disorders have so far proved negative.

Besides his devotion to research work, Dr. Brody also likes to talk about the beauty and history of the island.

He notes that it was first “discovered” in 1521 by Magellan.

60 Wisconsin Physicians Take Part in Continuing Med Education Programs

Sixty practicing physicians in Wisconsin will soon have continuing medical education programs designed to meet the requirements of their individual practices.

The programs are a result of a \$106,455 contract awarded by the Division of Physician Manpower, BEMT, to the University of Wisconsin.

The one-year contract will attempt to define continuing education needs of each physician and develop mechanisms for meeting them.

A previous study by the University of Wisconsin suggested that educational needs may be aided through the use of professional practice profiles combined with a computerized bank of medical knowledge.

In the present study, each physician will be given a profile of his professional practice, followed by tests from a computerized bank of questions most frequently encountered in his practice.

Finally, an individualized program of continuing education will be designed by a full-time educational consultant in the University's Department of Postgraduate Education. The project director will be Dr. Thomas Meyer, Chairman of that department.

Illustrated Book Explains Structure of Nervous System, Cell Processes

An illustrated book, *The Fine Structure of the Nervous System, The Cells and Their Processes*, for students and research workers, has been published by the Hoeber Medical Division, Harper & Row.

It was written by three scientists, including Dr. Henry deF. Webster, head, Section on Cellular Neuro-pathology, Laboratory of Neuro-pathology and Neuroanatomical Sciences, National Institute of Neurological Diseases and Stroke.

The other scientists are Dr. Alan Peters, Waterhouse Professor of Anatomy, and Chairman of the Department, Boston University School of Medicine, and Dr. Sanford L. Palay, Bullard Professor of Neuroanatomy, Harvard Medical School.

Now, Guam's largest industry is supporting the Navy and Air Force bases on the island.

And tourism is growing. Guam has a number of large hotels, occupied for the most part by honeymooners from Japan.

Skin diving and fishing are popular sports, and the villages and countryside of Guam are always in bloom with lush tropical flowers—Dr. Brody's photographs attest to that.



Report Explores Ways Biomedical Engineering May Aid Health Care

Biomedical engineering inevitably will play a greater role in the Nation's efforts to devise better methods for delivery of health service, the National Institute of General Medical Sciences concluded in a recently issued publication.

The 65-page report, *Biomedical Engineering Development and Production*, explores ways to effectively coordinate available resources for research, development, production, and distribution of medical devices.

The report is the product of a year-long exploratory study of potential contributions to be made in biomedical engineering by education, financial and manufacturing, and marketing institutions in the Chicago industrial region.

The NIGMS-sponsored study was carried out by the Biomedical Engineering Resource Corporation, a nonprofit organization formed under auspices of the Governor of Illinois' Science Advisory Council.

Findings Apply Elsewhere

While the findings deal specifically with the Chicago area, they are applicable to other regions.

Laboratory automation is necessary to speed and improve the validity of laboratory testing as a basic source of information for physicians in diagnosis and treatment of disease, according to Dr. James F. Dickson III, NIGMS's director for biomedical engineering programs.

Automation also reduces unit costs of patients' tests and time spent in the hospital for tests.

Dr. Dickson said the Chicago study was done to find ways to surmount problems which retard the successful pursuit of medical instruments systems development, from their initial concept through successive stages of research and

Cancer Drug, Mithramycin, For Inoperable Testicular Tumors, Wins FDA Approval

A drug long under study for the treatment of inoperable testicular tumors and certain other conditions related to cancer will soon be available to physicians.

It is called mithramycin, and it will be marketed under the trademark Mithracin by the Pfizer Laboratories Division, Chas. Pfizer & Co., Inc. Approval of the drug by the U.S. Food and Drug Administration was published officially in the Federal Register.

The drug was discovered by Pfizer scientists, and developed in collaboration with the Cancer Chemotherapy Program of the National Cancer Institute. It is an antibiotic derived from a soil organism of the *Streptomyces* genus.

Mithracin is a highly complex chemical substance requiring special handling in shipping and storage.

It will be supplied as a freeze-dried preparation for intravenous injection that must be stored at refrigerator temperatures below 10 degrees Centigrade.

Mithracin will be available to specialists treating cancer. For indigent patients, Pfizer will provide the drug free of charge.

Testicular cancer occurs relatively infrequently, accounting for about 750 deaths a year in the United States.

As in the case of most drugs of this kind, Mithracin is effective in

eventual deployment to the health care scene.

Among problems considered in the study were: enabling legislation and licensing procedures, supply of risk capital, assignment of patient rights, and provision of required professional and technical manpower.

Single copies of the report may be obtained from the Information Office, NIGMS, Bethesda, Md. 20014.

only a portion of diagnosed cases.

In studies of 305 patients with inoperable testicular tumors, 33 (10.8 percent) showed complete disappearance of tumor masses.

An additional 80 patients (26.2 percent) showed a significant partial remission. The longest duration of a continuing complete response is now 9½ years. The median duration of complete response is one year.

For the significant partial remissions, the median duration is considerably shorter, and can be measured in months.

The drug has also been valuable in treating cancer patients with marked hypercalcemia (abnormal amounts of calcium in the blood) and hypercalciuria (excess of calcium in the urine).

These conditions are often reversed by Mithracin at doses lower than recommended in the treatment of tumors.

Kills Malignant Cells

The drug, a potent cytotoxic agent, kills malignant human cells in tissue culture at concentrations as low as 0.5 micrograms per milliliter of tissue culture medium.

Following prolonged animal tests to establish criteria for toxicity and safety, and to set feasible dosage schedules, it was put into clinical trials on cancer patients.

Like many other cancer drugs, Mithracin is highly toxic. Severe untoward reactions can occur, and for that reason it should be administered only to hospitalized patients by or under the supervision of a physician experienced in the use of cancer drugs.

Side effects include reduction of platelet and white cell count; there is also a risk of bleeding. Other side effects may include gastrointestinal reactions such as loss of appetite and nausea.

Dr. Gunnar Ryge Elected To Office of Dental Research Association



Dr. Ryge, who is with the Dental Health Center in San Francisco, is a native of Denmark, and received his degree from the Royal Danish Dental School.

Dr. Gunnar Ryge, Division of Dental Health, has been elected Vice-President of the International Association for Dental Research for 1970-71. He is associate director for Applied Research and Training at the Dental Health Center in San Francisco.

Dr. Ryge, who is a native of Copenhagen, Denmark, received his dental degree in 1939 from the Royal Danish Dental School.

In 1949 he came to the U.S. to do work in his field at the National Bureau of Standards. Later, he attended Marquette University where he received his M.A. in Physics and Mathematics.

Dr. Ryge is a lecturer at the University of California Medical Center, School of Dentistry, and a professor at the University of the Pacific School of Dentistry. He has also lectured extensively throughout the U.S.

NCI Issues Supplement To Book on Compounds

A new listing of substances that have been tested for their ability to produce cancers has been published by the National Cancer Institute.

The 655-page volume, which covers the period 1954 through 1969, is the second supplement to the NCI publication, "Survey of Compounds Which Have Been Tested for Carcinogenic Activity."

The authors are Dr. Philippe Shubik, Eppley Institute for Research in Cancer, University of Nebraska, College of Medicine, and Dr. Jonathan L. Hartwell, NCI. The volume was edited by Dr. James A. Peters, NCI.

The supplemental book may be purchased for \$7.25 a copy, from the Superintendent of Documents, U.S. Government Printing Office, Washington, D.C. 20402.



Because of exceptional devotion to their work and for suggestions to improve operations procedures and standards, the Computer Operators, Computer Center Branch, received a Special Achievement Award from Dr. Arnold W. Pratt, DCRT Director (standing, left). These employees collectively averaged more than 120 man-hours of overtime per week. Computers are manned 24 hours a day, hence, the awards were made in two shifts, and many of the operators were not present for the photo.

Latest Participants in NIH Visiting Scientists Program Listed Here

4/1—Dr. Franz Oesch, Switzerland, Laboratory of Chemistry. Sponsor: Dr. John W. Daly, NIAMD, Bldg. 4, Rm. 227.

4/1—Dr. Violette C. Sutherland, U. S., National Center for Prevention and Control of Alcoholism. Sponsor: Dr. Jack H. Mendelson, NIMH, St. Elizabeths Hospital, Washington, D. C.

4/9—Dr. Shri Pati Shukla, India, Intermediary Metabolism Section. Sponsor: Dr. Bertram Sacktor, NICHD, Gerontology Research Center, Baltimore, Md.