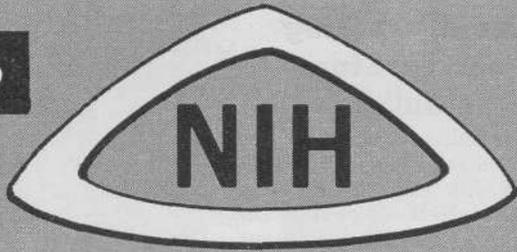


the



Record

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

January 3, 1973
Vol. XXV, No. 1

NATIONAL INSTITUTES OF HEALTH

Dr. Elke Jordan Joins DRG Grants Associates

Dr. Elke Jordan recently joined the DRG Grants Associates Program for a year of training in grants administration.

Before coming to the Division of Research Grants, Dr. Jordan was a research associate in the Department of Molecular Biology at the University of California, Berkeley.

While at the University of Wisconsin in 1968-69, she did collaborative research both at UC and Wisconsin.



Dr. Jordan

In 1964 Dr. Jordan became a postdoctoral fellow at the University. (See DR. JORDAN, Page 8)

White House Accepts Marston's Resignation

Dr. Robert Q. Marston on Dec. 12 informed his immediate staff and directors of all NIH Bureaus, Institutes and Divisions that he had been advised that the President has decided to appoint a new Director of NIH within the next few months.

In a letter to HEW Secretary Elliot Richardson, Dr. Marston indicated his willingness to be of any assistance possible in assuring a smooth administrative transition.

The President also accepted the resignations of Dr. Merlin K. DuVal, Assistant Secretary for Health, and Dr. Jesse L. Steinfeld, PHS Surgeon General.

Dr. DuVal's resignation became effective on Dec. 15. He will return to the University of Arizona College of Medicine, where he had served as Dean since 1964.

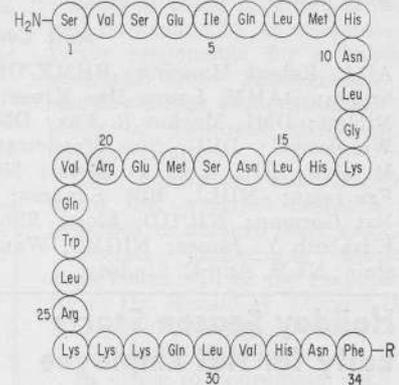
NHLI Scientists Collaborate to Effect Human Parathyroid Hormone Synthesis

Scientists at the National Heart and Lung Institute, the Mayo Clinic, and the Ciba-Geigy Pharmaceutical Company have determined the chemical structure and synthesized the biologically active portion of human parathyroid hormone.

The results of these collaborative efforts have revealed significant differences between the chemical structure of human parathyroid hormone and that derived from animal sources.

They also make possible, for the first time, synthesis of sufficient quantities of the hormone's active component for experimental studies of its role in calcium metabolism and metabolic bone disease, for the development of diagnostic assay procedures for its measurement in human blood, and for clinical investigation of its potential use as a therapeutic agent in human disease.

Details of the chemical structure, including the precise sequence of the amino acids in the active portion of the human parathyroid hormone, were reported in the December issue of *Proceedings of the National Academy of Sciences* by Drs. H. Bryan Brewer, Jr., Thomas



This sequence of the 34 amino acid constituents of the biologically active portion of human parathyroid were determined by the NHLI scientists.

Fairwell, and Rosemary Ronan, of NHLI's Section on Peptide Chemistry, Molecular Diseases Branch.

Also, by Drs. Claude D. Arnaud and Glen W. Sizemore, of the Mineral Research Unit, Department of Endocrine Research, Mayo Medical School and Clinic.

This structural information was provided to a research team at (See PARATHYROID, Page 6)

FIRST TIME ON NATIONAL SCENE

Needed Rehabilitation Programs for Cancer Patients Recommended by Experts at Recent Dulles Meeting

"Very little or no interest was demonstrated in the past in rehabilitating cancer patients. There seemed to be a fatalist attitude towards them," said Dr. John E. Healey, Jr., of M.D. Anderson Hospital and Tumor Institute, Houston, Tex., at a National Cancer Institute-sponsored rehabilitation conference at Dulles, Dec. 4-8, 1972.

For the first time on a national scale for cancer patients, rehabilitation experts met to plan and recommend needed research and cancer control programs using rehabilitation techniques.

Grows in Importance

The increased survival rate in recent years of patients with certain cancers is one of the reasons why rehabilitation has assumed a greater importance today.

Rehabilitation research has become a primary objective of the National Cancer Plan to bring results of research developments to the patient as quickly as possible.

Patient rehabilitation has been hampered over the years because of societal apathy and rejection. The victim lives under the social stigma of cancer as the "dreaded disease."

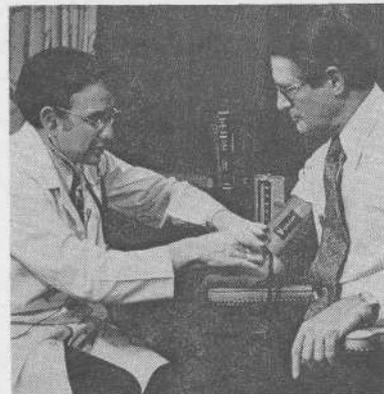
Once a person develops cancer, he may be subject to various forms of discrimination especially in obtaining life and health insurance and employment. He also may suffer an intense psychological strain.

According to a panel member, the patient has the greatest need for education. If he cannot be convinced of his being able to return to—or near to—his potential at the time the disease struck, rehabilitation will not be successful.

However, he added, cancer patients are the most enthusiastic and motivated people when they realize they can overcome their handicaps.

Dr. Guy F. Robbins of Memorial Sloan-Kettering Cancer Center, New York City, said, "Within six months to a year there will be input . . . which will show that these programs are giving a positive addition to the quality of survival of patients."

(See REHABILITATION, Page 8)



Dr. Theodore Cooper, NHLI Director (l), tells HEW Secretary Elliot L. Richardson how to measure blood pressure during a recent videotaping session. The program launches a campaign to educate the public on the dangers of high blood pressure. As part of the National Hypertension Campaign—a joint effort by NIH, HSMHA, and FDA—a conference is being held in Washington, D.C., Jan. 15-16, with a keynote address by Secy. Richardson, and a major address by Dr. Jeremiah Stamler of Chicago.

Dr. Luria to Head Cancer Research Center at MIT

The National Cancer Institute has awarded two grants to the Massachusetts Institute of Technology for a cancer research center to be directed by Dr. Salvador E. Luria, 1969 Nobel Prize winner.

This facility will be the first major cancer research center in the U.S. that is not based in a medical institution.

Dr. Luria, who won his Laureate for research in molecular biology, said the new facility will stress basic research in cancer biology and would train future cancer investigators.

The NCI grants will be used for renovating existing facilities and for operating the center. MIT plans to contribute toward the construction costs of the center.

the  **Record**

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Holiday Season Starts Early for NEI Employee

For at least one member of the National Eye Institute staff, the holiday season started a month early.

A lost wallet containing \$15 without identification might have been a real set-back at this time of year.

The owner, who wishes to remain anonymous, lost her wallet in the Bldg. 31 cafeteria on Dec. 6.

When she realized it was missing, she contacted the cafeteria management.

Aurilla Spearman, a cafeteria employee, found the wallet the next day. Ms. X was then called to claim her lost possession.

Who said there isn't a Santa Claus?

Roosevelt Taylor, CC Employee In Nutrition Department, Dies

Roosevelt Taylor, an employee of the Clinical Center Nutrition Department since July 1971, died Dec. 18 after a heart attack.

Before joining NIH, Mr. Taylor worked for more than 10 years in the maintenance and mechanics department of the Hecht Co.

During World War II, Mr. Taylor served in the Army.

He is survived by his wife, Earline; three daughters, Sheena Rene, Gwendolyn, and Predita; his father, John Taylor, of Red Springs, N.C.; his mother, Mrs. Ethel Russell of Washington; a brother, Franklin Russell of Washington, and a sister, Mrs. Helen James of Hyattsville.

7th 'Operation Clean-up' To Be Held in January

The seventh annual "Operation Clean-up" will be conducted at NIH this month. The campaign aims at Government economy by utilizing all idle equipment and supplies.

Last year, 504 pieces of equipment valued at \$120,709 were transferred to the Property Utilization Warehouse for reissuance.

Property representatives urge components to organize "walk-thru" teams to identify items that could be redistributed on a cost-free basis.

Off-reservation buildings will be visited by the representatives the week of Jan. 15; on-campus buildings, the week of Jan. 22.

For further information, call Clarence Sharp, Ext. 64131.



Dr. Robert Q. Marston (c), NIH Director, accepts this year's first R&W membership card from Ignacio Smith (l), coordinator of the association's membership drive, and Douglas Weiford, R&W general manager.

Jan. 9 Marks Opening Of Self Service Store Located in Building 10

Official opening ceremonies for Self Service store No. 4 will be held on Tuesday, Jan. 9 at 10 a.m. Leon M. Schwartz, NIH Associate Director for Administration, will cut the ribbon.

The new store is located in Bldg. 10, Room B2N-105, at the end of the tunnel. It will be open for business 4 days a week, Tuesday through Friday, 8 a.m. to 3 p.m.

The early opening hour is primarily for the convenience of the Nursing Department.

Store No. 4 will carry supplies most used by customers in Bldg. 10 and nearby facilities.

Material in all sections of the NIH Supply Catalog (except office furniture and equipment) will be available.

Shoppers must have Self Service Store Charge Plates authorized by their area administrative officer to make purchases in any of the four supply stores.



Because she proposed a new type of form to simplify the ordering of office and lab supplies, Helen C. Jenerick, Laboratory of Biochemical Pharmacology, NIAMDD, received a \$50 cash employee suggestion award. Her suggestion resulted in the NIH form 1861—the Supply Order Worksheet—which received the approval of B/I/D executive officers, and will soon be carried in stock.

Joseph M. Albrecht Dies; Former NCI Section Head

Joseph M. Albrecht, former head of the National Cancer Institute's Pathological Technology Section, died Nov. 21 in Kailua Kona, Hawaii, where he had lived since his retirement in 1969.

Mr. Albrecht served as a consultant to the NCI staff on the technique of preparing tissues for microscopic diagnosis.

He developed new procedures for preparing laboratory specimens, handling tissue-culture material in diffusion chambers, and cutting unfixed, undecalcified frozen bone.

Before joining NCI, he was a lab technician at Washington University School of Medicine's Department of Anatomy in St. Louis.

Mr. Albrecht had attended the University of Minnesota and Washington University.

He is survived by his wife, Jane.

NIH Television, Radio Program Schedule

Radio

DISCUSSION: NIH

WGMS, AM-570—FM Stereo 103.5—Friday about 2:30 p.m.

January 5

Marion N. Keagle, CC
Subject: Nursing at the Clinical Center

January 12

Dr. William R. Sanslone, NIDR
Subject: National Caries Program

Interview takes place during the program *Listener's Choice*.

ISSUES

WRC, AM-980—FM 93.9 Sunday, 7:30 a.m.

January 7

Dr. Phillip Gorden, NIAMDD
Subject: Diabetes

Note: Dr. Gorden will be one of several panelists.

General Schedule Annual Salary Rates for 1973

Per annum rates

Grade	1	2	3	4	5	6	7	8	9	10
GS-1.....	\$4,798	\$4,958	\$5,118	\$5,278	\$5,438	\$5,598	\$5,758	\$5,918	\$6,078	\$6,238
GS-2.....	5,432	5,613	5,794	5,975	6,156	6,337	6,518	6,699	6,880	7,061
GS-3.....	6,128	6,332	6,536	6,740	6,944	7,148	7,352	7,556	7,760	7,964
GS-4.....	6,882	7,111	7,340	7,569	7,798	8,027	8,256	8,485	8,714	8,943
GS-5.....	7,694	7,951	8,208	8,465	8,722	8,979	9,236	9,493	9,750	10,007
GS-6.....	8,572	8,858	9,144	9,430	9,716	10,002	10,288	10,574	10,860	11,146
GS-7.....	9,520	9,837	10,154	10,471	10,788	11,105	11,422	11,739	12,056	12,373
GS-8.....	10,528	10,879	11,230	11,581	11,932	12,283	12,634	12,985	13,336	13,687
GS-9.....	11,614	12,001	12,388	12,775	13,162	13,549	13,936	14,323	14,710	15,097
GS-10.....	12,775	13,201	13,627	14,053	14,479	14,905	15,331	15,757	16,183	16,609
GS-11.....	13,996	14,462	14,928	15,394	15,860	16,326	16,792	17,258	17,724	18,190
GS-12.....	16,682	17,238	17,794	18,350	18,906	19,462	20,018	20,574	21,130	21,686
GS-13.....	19,700	20,357	21,014	21,671	22,328	22,985	23,642	24,299	24,956	25,613
GS-14.....	23,088	23,858	24,628	25,398	26,168	26,938	27,708	28,478	29,248	30,018
GS-15.....	26,898	27,795	28,692	29,589	30,486	31,383	32,280	33,177	34,074	34,971
GS-16.....	31,203	32,243	33,283	34,323	35,363	36,403	37,443	38,483	39,523	.....
GS-17.....	36,103*	37,306*	38,509*	39,712*	40,915*	.....	.....	.....	.....	.....
GS-18.....	41,734*	.....	.....	.....	.....	.....	.....	.....	.....	.....

*The rate of basic pay for employees at these rates is limited by section 5305 of title 5 of the United States Code to the rate for level V of the Executive Schedule (as of the effective date of this salary adjustment, \$36,000).

For most NIH employees, the new Federal pay raise—effective for the pay period beginning Jan. 7—will be reflected in checks issued Jan. 30.

Dr. Lucius Badger Dies; Was Asst. Director, NIH

Dr. Lucius F. Badger, assistant director of NIH from 1942 to 1948, died recently in Suburban Hospital.

Dr. Badger was commissioned into the Public Health Service in 1921, and soon after became chief medical officer of the Leprosy Investigation Station in Honolulu.

Later posts included director of leprosy investigation for PHS at NIH, regional medical officer for Indian services in the PHS Atlanta office, and director of the leprosy control section of the Communicable Disease Center in Atlanta, a position he held until his retirement in 1957. Dr. Badger wrote numerous publications on typhus fever, leprosy, and Rocky Mountain spotted fever.

He leaves a daughter, Margaret Badger, Clinical Center administrative officer, and three sisters.

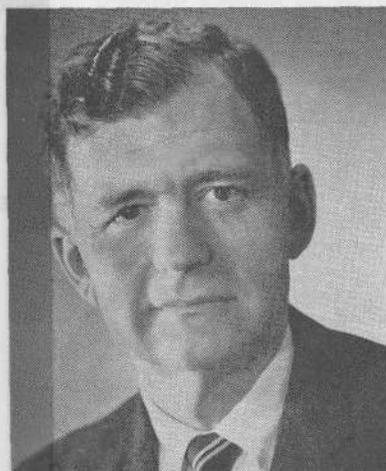
The family suggests expressions of sympathy in the form of contributions to the Leonard Wood Leprosy Foundation, 2430 Pennsylvania Avenue, Washington, D.C.

Dr. Jackson to Speak at Sickle Cell Disease Program Seminar

The NIH EEO coordinators are sponsoring a seminar on the National Sickle Cell Disease Program, Thursday, Jan. 11, at 12 noon in the Masur Auditorium.

Dr. Rudolph E. Jackson, national coordinator for the SCD Program, will speak at the meeting. Dr. Jackson is chief of the SCD Branch, NHLI.

The seminar is open to all employees.



Dr. Eugene Braunwald, former clinical director and chief of the Cardiology Branch, NHLI, received the American Heart Association's Research Achievement Award—an illuminated scroll and a \$1,000 honorarium. He was cited as "an investigator . . . whose contributions to cardiovascular physiology and clinical cardiology have been extraordinary." Dr. Braunwald is Hersey Professor of the Theory and Practice of Physic at Harvard Medical School.

CFC Reaches 86.2% of Goal; 5 NIH'ers Honored



Dr. Endicott (l) reaches for a winning ticket in the cash-prize drawing for CFC contributors on Nov. 30. Also participating were (l to r): Rita Jenkins, assistant CFC coordinator; James A. Walsh, CFC coordinator; Melvin C. Frye, R&W Association president, and L. D. Weiford, Jr., R&W general manager. The \$50 prize went to George McGuire, OD; Mildred Peterson, DRG, and Vergie Carter, CC, each won \$25.

The 1972-73 Combined Federal Campaign at NIH officially closed Nov. 30, reaching 86.2 percent of its goal, and five NIH employees received the first annual Secretary's Award for Outstanding Achievement in the conduct of the campaign.

HEW Secy. Elliot L. Richardson presented the awards on Dec. 20 to James A. Walsh, BHME, NIH coordinator; Dr. Stephen P. Hatchett, CFC chairman for DRG; Dr. Milo D. Leavitt, Jr., chairman for FIC's campaign; Thomas C. Leffingwell, CFC coordinator for FIC, and Errett Straley, Jr., DRG coordinator.

The percentage attained exceeds last year's, but NIH contributions totalling \$216,286, were \$1,687 short of last year's mark. Confidential donations have not yet been added to this total, however, and it is anticipated that the final tally will increase.

Six groups attained virtually 100 percent or more of their goal: FIC, BHME, NIGMS, DRG, OD, and NIAMDD.

Dr. Kenneth M. Endicott, BHME Director and vice chairman of the CFC, expressed his thanks for the generous contributions of NIH employees and for "a job well done" by the keymen.

NIH Graduate Program Begins Classes Feb. 5

Spring semester classes for the Graduate Program at NIH will begin Feb. 5.

New courses have been added including the Sociology of Music and the Biological Effects of Ultrasonic Energy.

Registration by mail will be accepted until Jan. 19; in-person registration is possible during Jan. 25-31. All classes are in the evenings on campus.

Class schedules may be obtained from the school office in the Clinical Center, Room B1L-101 or by calling Ext. 65273.

Tally of CFC Donations

Unit	Total \$ Collected	Percent of \$ Quota
FIC	\$ 2,770	162.43
BHME	22,952	118.76
NIGMS	5,690	118.66
DRG	12,591	110.98
OD	31,221	103.31
NIAMDD	18,075	99.75
DRS	8,206	95.31
NIDR	8,368	93.64
DRR	2,135	92.43
NLM	9,352	91.55
DCRT	6,155	80.39
NICHD	8,318	75.11
NHLI	13,116	74.33
NEI	2,650	72.79
NCI	31,486	70.46
NIAID	9,265	70.03
NINDS	10,121	66.42
CC	13,817	62.05
NIH	\$216,286	86.16

Father Guicheteau, CC Ministry Dept., Dies

The Rev. Armand Joseph Guicheteau, S.J., Catholic chaplain to Clinical Center patients, died December 12 at Holy Cross Hospital. He had been with the CC's Spiritual Ministry Department since 1964.

Father Guicheteau was ordained in 1938 at Woodstock College.

During the early 1930's and again during World War II, he taught in the Philippines, and after the war taught physics and French at St. Joseph's College High School in Philadelphia.

In 1949, Father Guicheteau came to this area as parish priest of St. Aloysius Church and Gonzaga College High School, Washington, D.C.

Later, he taught theology at Georgetown University where he was also assistant director of admissions before coming to NIH.

Father Guicheteau resided at Georgetown Preparatory School, Rockville, Md., where funeral services were held. A Mass was also held on Dec. 15 in the CC chapel.

NIAMDD Reorganizes Extramural Programs Into 4 Subdivisions

A major reorganization at the National Institute of Arthritis, Metabolism, and Digestive Diseases involves four new units.

Concurrent with the name change which gave more impetus to the digestive disease area, NIAMDD reorganized the extramural research, research training, and development activities.

Eleven extramural categorical disease program areas are grouped into four clusters. These are: Arthritis, Bone, and Skin Diseases; Diabetes, Endocrine, and Metabolic Diseases; Digestive Diseases and Nutrition, and Kidney, Urologic, and Blood Diseases.

Each of these four sub-divisions will be headed by an associate director responsible for a balanced program from fundamental research through demonstrations and study of improved therapies by clinical trials.

The programs will use both grant and contract research approaches to achieve their goals.

Overall extramural program supervision will be the responsibility of Dr. Ronald W. Lamont-Havers, appointed deputy director of the Institute last August.

In order to coordinate such activities as grants management and processing, the position of associate director for Extramural Program Activities has also been established.

The reorganization will take several months to complete but two programs have been put into operation: Digestive Diseases and Nutrition, with Dr. Lionel M. Bernstein as associate director, and Extramural Activities, with Dr. E. P. Offutt as associate director.

Intramural research will remain under Dr. J. E. Rall, director of Intramural Research.

EEO Council Announces Newest Committees

The Equal Employment Opportunity Council of NIH now includes committees dealing with Supervisory Development and Training; Upward Mobility and Employee Development; Recruitment, Placement and Promotion; Employee Relations, and Civil Rights in Grants and Contracts, in addition to its internal committees.

A group or individual may present questions for consideration to the Council, which meets the Wednesday after payday, by contacting the Executive Committee:

- Levon O. Parker, Chairman 65332 Bldg. 31, Rm. 8A19
- Coleman B. Chandler 65866 10/B1C02
- Mildred L. Freeman 63683 31/5C35
- Herbert D. Jackson 65685 31/B1A03
- Micah I. Krichevsky 64215 30/B1
- Avery Mattison 63520 10/2A07
- Doris E. McGuire 67005 WB/426
- Robert L. Scruggs 62207 2/805

Mail Service Section Aims at Reducing

The mail service at NIH handled 26,863,320 pieces of mail last year—a 41 percent increase over the load distributed 4 years ago.

In 1968, there were 72 employees in the mail room who routed mail for 29 buildings and an NIH population of 11,000. Today, with 11 less employees, the service handles mail for 33 buildings and 12,700 workers.

Along with the increase in NIH's volume of mail over the years, postal rates for all mail classes have gone up 30 percent. Fiscal 1973 postage costs (based on 1972 figures) for Bureaus, Institutes, and Divisions were estimated at over \$1,145,000.

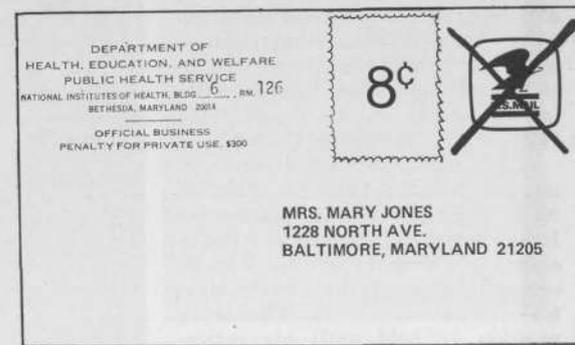
NIH—like all Government agencies—is not exempt from paying postage. As a matter of fact, postage for each B/I/D is determined by the number and type of indicia envelopes and labels obtained from the self service stores.

All rates charged for letters up to and including large packages are identical to those the public pays.

Of particular concern to the Mail Service Section is the reduction of mailing costs. Too many mistakes are occurring which drive mail costs upward.

By following correct procedures for mailing correspondence, budget expenditures can be lowered in many instances.

On any given day, the mistakes illustrated on these two pages (except one) can be found in the mail room. Misaddressed or im-



Marking out the indicia and placing a stamp near it does not cancel postage. Postage costs are charged when the envelopes are obtained from Self Service stores.

properly used indicia envelopes can result in delays of mail up to 2 days.

Careful attention should be paid to the proper use of labels and penalty envelopes to assure speedy delivery.

Savings in the thousands of dollars in postage alone—not to mention man hours—may be realized by following correct procedures.

The mail service would like to extend some helpful hints on how to process correspondence for mailing and reduce expenditures.

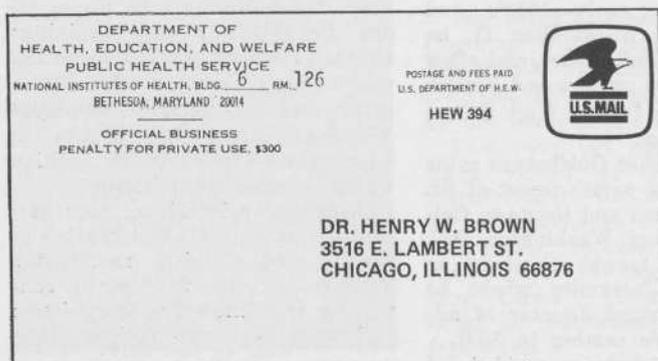
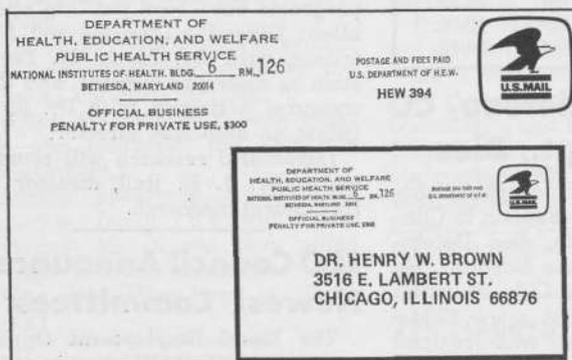
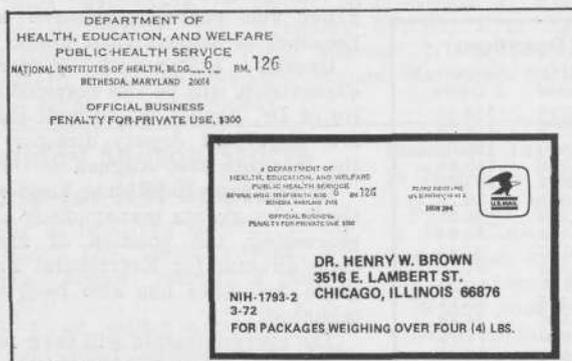
It costs 40 percent more to send letters air mail. Most first class mail gets air mail treatment by the U.S. Postal Service except for relatively short distances where it is unnecessary.

Do not specify "Special Delivery" except in rare cases where evening or weekend delivery is needed. It should only be used when speed is important.

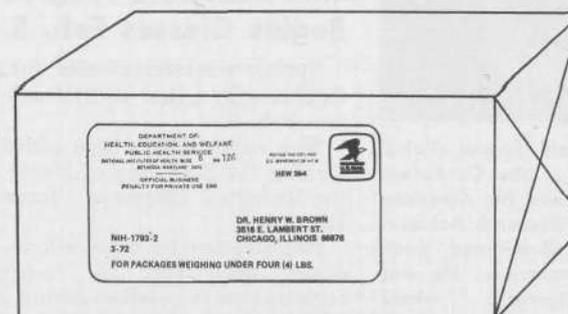
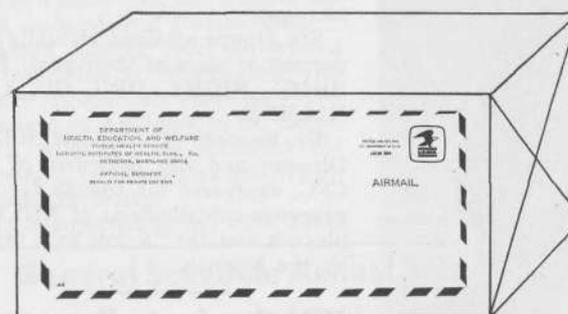
Be specific in addressing inter-office mail. Envelopes are received in the mail room marked for "Susie—Payroll," or "J. Smith—Sixth floor," or something similar.

The mail room rehandles approximately 20,000 pieces of mis-addressed, mislabeled, and improperly packaged mail each month which causes unnecessary delay.

The full address—name, building, and office—must be on the outside of all envelopes to assure prompt delivery. If sending by the



A \$1.50 label designed for packages should not be used on envelopes (top). When placed on an indicia envelope it costs \$1.74 (center). When sent correctly (bottom) in a penalty indicia envelope, postage is 24 cents.



An air mail envelope has been glued to a package to be mailed. The Post Office will return the item because postage covers the envelope only—not the package. This leads to delay. The package should be mailed with a proper mailing label attached.

By Ed Driscoll

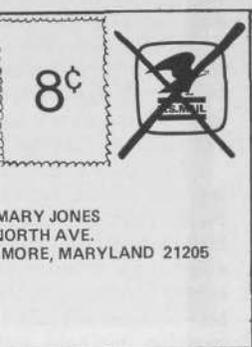
DEPARTMENT OF HEALTH, EDUCATION, AND WELFARE
PUBLIC HEALTH SERVICE
NATIONAL INSTITUTES OF HEALTH, BLDG. 6, RM. 126
BETHESDA, MARYLAND 20814

OFFICIAL BUSINESS
PENALTY FOR PRIVATE USE, \$300

Person

Penalty for envelopes in or fine up to \$

at Reducing Postal Costs—You Can Help



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result in delays of mail up to

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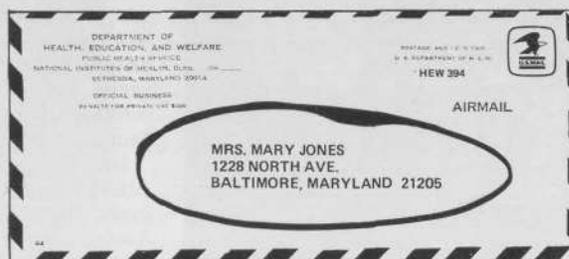
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end some helpful hints on how
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similar.

imately 20,000 pieces of mis-
rly packaged mail each month

and office—must be on the out-
t delivery. If sending by the



An envelope addressed to Baltimore (top) is being sent air mail which costs 11 cents. Since mail is never flown from Washington, D.C., to Baltimore, an 8 cent indicia envelope should be used. Mail from Washington, D.C., flies only when the distance is over approximately 300 miles (except to New England states—all mail from the District goes there by land). Contact the mail service for a chart depicting which states receive air mail flown from the capitol.

pneumatic tubes, the address, along with the tube station number, is required.

Avoid using paper clips. They add weight, can damage mail handling machinery, and tear envelopes.

Prepare mail as early in the day as possible. The Post Office picks up the mail at 12:30 p.m. and 5:30 p.m. Later mail becomes part of the evening rush and takes longer to be dispatched.

Outgoing postal mail is delivered directly to the City Post Office after a pre-sort by the mail room. Government mail put with personal correspondence in mail chutes may be delayed up to 3 days.

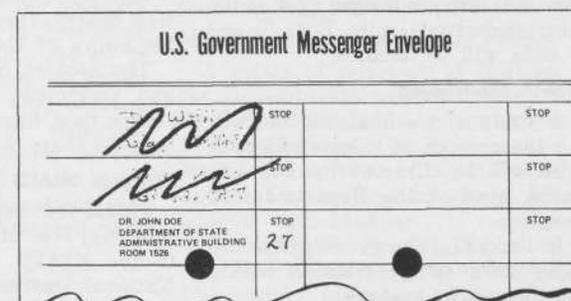
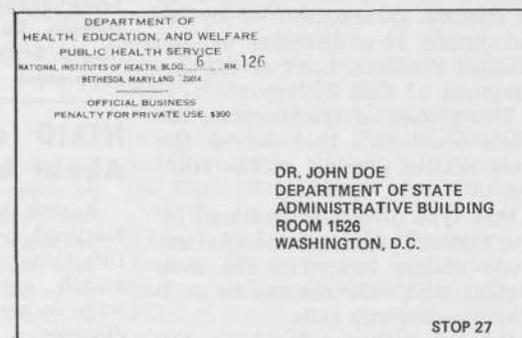
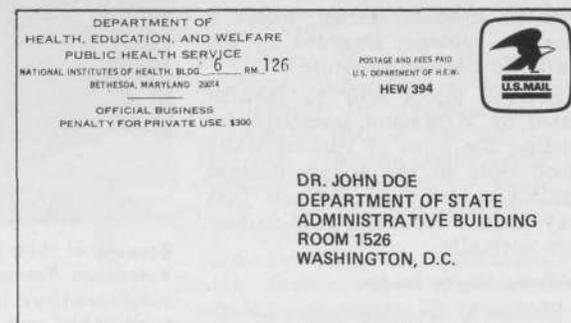
For prompt delivery, always use Zip Codes. Also, all envelopes should carry a return address including a Zip Code.

For specific cases, fourth class book rate mail can offer savings. Certain requirements must be met to qualify for fourth class, but savings over first class can be substantial.

First class letters are allowed to weigh one full ounce. The USPS reports that most weigh less than one half an ounce. When sending "underweight" letters, consider consolidating some of them in the same envelope, if possible.

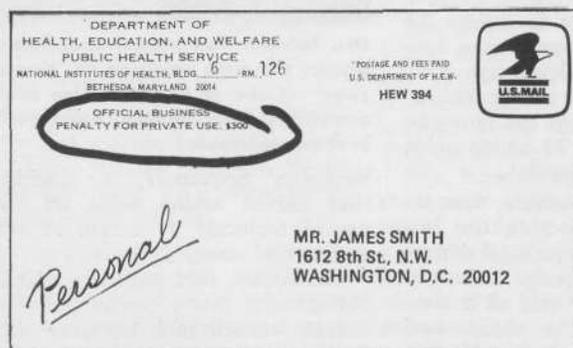
Every consideration should be given to specify only the most economical class of mail to be used. The Mail Service Section can help with all mailing problems. Call Ext. 65651.

Cut out these pages and save them for future reference. By correctly expediting mail, both time and money can be saved.

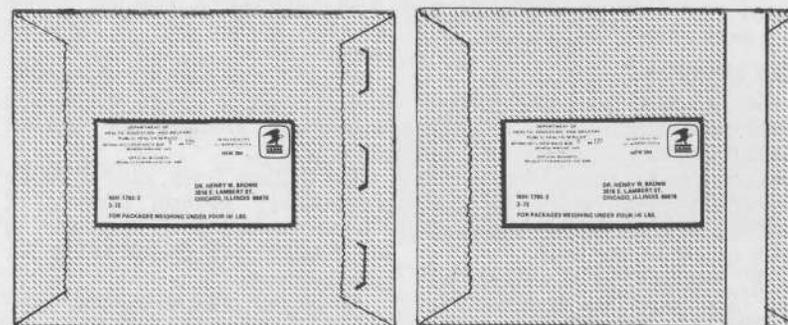


Interdepartmental mail may be sent without postage through the stop system in interoffice or messenger envelopes (bottom) and a non-indicia envelope (center). Penalty envelopes carry the usual postal rates. For information regarding the Government agency Stop System, see pages 23 through 26 of the NIH Telephone and Service Directory.

By Ed Driscoll



Penalty for private use (personal mail) of indicia envelopes in order to avoid payment of postage can carry a fine up to \$300 upon conviction.



NO MORE THAN THREE STAPLES should be used to close the end of a jiffy bag. The Post Office will return bags with more than this amount because of the increased risk of injury from unclosed staples. Filament tape—used with or without staples—presents a neater and safer way to seal the bags.

Israeli Scientists Study Role of Cells in Body's Defense Against Cancer

A multi-disciplinary cancer research program will be established at the Weizmann Institute of Science in Rehovot, Israel, under a research contract awarded by the National Cancer Institute.

Several topics will be investigated by Weizmann scientists, including the roles of various white blood cells in the body's defense against cancer, and methods that may include leukemia cells to mature normally.

Feldman Heads Studies

Studies of treating cancer by enhancing the body's disease-fighting, or immune system, will be carried out under the direction of Dr. Michael Feldman, head of the Department of Cell Biology.

Two groups of lymphocytes, the white blood cells that defend the body against disease, will be studied.

One type of cell is produced by the thymus, an organ of the immune system located in the neck region; such cells are known as T (thymus-derived) cells.

Related cells produced in the bone marrow are known as B (bone marrow-derived) cells. Both T and B cells will be studied.

Growth Interrupted

A study of mechanisms controlling the growth of mouse leukemia cells will be directed by Dr. Leo Sachs, head of the Department of Genetics.

In leukemia, the growth of white blood cells is interrupted before they are fully mature.

As a result, the leukemic cells cannot perform the protective function of normal, mature white blood cells, and leukemic patients frequently develop infections that healthy persons could easily overcome. Dr. Sachs will investigate ways in which leukemic cells may be induced to develop normally.

Dr. Michael Sela, head of the Department of Chemical Immunology, will study the role of certain antigens, chemical substances located on the surfaces of cells, as a means of detecting cancer.

CEA Linked to Cancer

One such antigen, the carcinoembryonic antigen (CEA), has been linked to cancers of the colon and rectum in man. Another is alphafetoprotein, which has been detected in patients and in animals with cancer of the liver.

Dr. Sela and his co-workers will try to improve the sensitivity of present tests for these antigens, and thereby increase their usefulness in early detection of gastrointestinal and liver cancers.

Dr. Nathan Trainin, a member



Because of their high standards of work, 12 employees in the Glassware Unit, Veterinary Resources Branch, DRS, receive Special Achievement Awards and congratulations from Dr. Joe R. Held, DRS Director (center). Roy E. Frazier, head of the unit (far right) was also present at the ceremony. L to r: Henry Trent, Julius Timmons, Paul Brown, Stephen O'Bot, Luther Johnson, James Jackson, David Bamberger, James Perry, Ernest Albrecht, and Carley Derflinger. Solomon Dent and Catherine Johnson, who also received awards, were not present.

NIAID Issues Publication About Allergy Research

A new booklet released by the National Institute of Allergy and Infectious Diseases describes research aimed at finding better ways to prevent and treat allergic diseases.

Allergy Research—An Introduction traces research back to the beginning of the century.

The booklet describes diagnostic and treatment methods and discusses new knowledge that offers hope to those with allergies.

Write to NIAID

Single free copies of the publication may be obtained by writing to the NIAID Information Office, National Institutes of Health, Bethesda, Md. 20014.

The booklet may be purchased from the Superintendent of Documents, U.S. Government Printing Office, Washington, D.C. 20402, at 40 cents a copy (bulk rate—\$30 per 100 copies).

of the Department of Cell Biology, will examine the possibility of preventing or delaying the growth of cancer cells transplanted into normal mice previously inoculated with lymphocytes from the thymus of other normal mice of the same genetic strain.

He will also evaluate the potential anti-cancer effects of chemical substances produced by normal thymus cells.

Dr. William Terry, chief of NCI's Immunology Branch, Division of Cancer Biology and Diagnosis, is the coordinating project officer for this contract.

Co-project officers are Drs. Donald Buell, Pierre Henkart, and John Wunderlich, DCBD, and Drs. Tibor Borsos, Harry Gelboin, and Herbert Rapp of NCI's Division of Cancer Cause and Prevention.

PARATHYROID

(Continued from Page 1)

Ciba-Geigy, Ltd. in Basel, Switzerland.

The team then synthesized the single-chain molecular fragment by stringing together the constituent amino acids in the proper sequence. Their animal tests have just confirmed the biological activity of this man-made peptide.

Parathyroid hormone is normally present in such small amounts—fresh parathyroid gland tissue contains only 50 parts per million as the hormone—that hormone-secreting tumors obtained at surgery were used as the source of hormone for these studies.

Yet, so uncommon are these tumors, that 2 years' time and the cooperation of more than 150 institutions and individual physicians and surgeons in 12 countries were required to obtain the hundreds of frozen tumors needed for an adequate yield of hormone.

These glands were collected world wide by Dr. Claude Arnaud and colleagues at the Mayo Clinic.

Active purified fractions from extracts of these glands were prepared by the Mayo Clinic team, from which Dr. Brewer and NHLI colleagues were able to isolate 3.8 milligrams of the pure human hormone—enough to determine the amino acid sequence of the biologically active region of the hormone (the first 34 of the 84 amino acids comprising the molecule).

Sequence determination was accomplished by subjecting the isolated hormone to sequential degradations by the Edman technique whereby one amino acid at a time is "cleaved" off the chain, and identified by either gas chromatography or mass spectrometry.

The sequential degradations were performed automatically in the

NCI Names Dr. Holland To Work in Soviet Union

Dr. James F. Holland, a specialist in treating cancer by drugs, has been named to work in the Soviet Union for one year to help carry out the new U.S.-U.S.S.R. collaborative program on cancer drugs.

Dr. Holland, the first U.S. scientist recruited for the joint program, is a past president of the American Association for Cancer Research.

He is on leave of absence from his duties as Director of the Cancer Clinical Research Center and chief of Medicine "A" at the Roswell Park Memorial Institute in Buffalo, N.Y.

Dr. Holland began his stay in the U.S.S.R. Nov. 5, accompanied by his wife and five children.

He plans to study methods used by Soviet scientists to develop and evaluate cancer drugs and will co-author scientific papers, organize seminars on drug research, and help develop treatment programs for gastro-intestinal cancers.

Consulting Firm Given Contract For Study of Clinical Training

A contract has been awarded to the consulting firm of Booz, Allen, and Hamilton to conduct a study of the most common problems impeding efficient and effective clinical training in allied health professions and to make recommendations for actions to overcome them.

The 14-month contract was given by the Division of Allied Health Manpower, BHME.



Drs. Fairwell (foreground) and Brewer discuss the mass spectrum or "fingerprint" of one of the 84 amino acids comprising the human parathyroid hormone molecule.

Beckman Sequencer, a machine that carves amino acids off the parent molecule at a rate of one amino acid every 2 hours.

The amino acid sequence of the biologically active portion of the human parathyroid hormone differed from the corresponding sequence of the bovine molecule by 6 and from the porcine hormone by 5 amino acid residues.



John Adams (l), director of Public Affairs for the Price Commission, congratulates Helen Neal, who has just been presented the Distinguished Service Award by C. Jackson Grayson, Jr., chairman of the Commission. Ms. Neal, deputy information officer, National Institute of General Medical Sciences, has been on detail with that office since its inception. Among her activities was organizing and directing the Price Commission Speakers Bureau. Ms. Neal has now returned to her post at NIGMS.

Two Soviet Scientists Begin Project in U.S. Under Co-op Program

The first two Russian scientists to begin a specific project in the United States under the U.S.-U.S.S.R. Five-year Agreement for a Cooperative Program, recently left the National Heart and Lung Institute after gathering information on the pathogenesis of arteriosclerosis.

Return Planned

They are Professor H. N. Gerasimova, chief of the Laboratory of Biochemistry, Myasnikov Institute of Cardiology, the Academy of Medical Sciences, Moscow, and Professor A. N. Klimov, head of the Laboratory of Biochemistry of Lipid Metabolism, Institute for Experimental Medicine, the Academy of Medical Sciences, Leningrad.

The researchers are now traveling to several of the Institute's lipid clinics that are located throughout the country. Later, they plan to return to NIH for further consultation.

Visitors Welcomed

Dr. Theodore Cooper, NHLI Director and coordinator of the cardiovascular studies that are to be conducted under the Agreement, welcomed the visitors.

Dr. Donald Fredrickson, director of Intramural Research, NHLI, and U.S. chairman of the Cooperative Project on Pathogenesis of Arteriosclerosis, and Dr. Milo D. Leavitt, Jr., Director of the Fogarty International Center, also greeted the Soviet scientists.

Living Animal Cells Grown in Circulatory Network Resemble Normal Body Tissue

NIH scientists have devised an artificial circulatory network that allows them to grow living animal cells in the laboratory to a density that resembles natural body tissue.

Drs. Richard A. Knazek and Pietro M. Gullino, National Cancer Institute; Dr. Peter O. Kohler, National Institute of Child Health and Human Development, and Dr. Robert L. Dedrick, Division of Research Services, published a report of their achievement in a recent issue of *Science*.

An application for a patent for the device has been registered by NIH in the names of Drs. Knazek, Gullino, Dedrick, and Dr. William R. Kidwell, NCI. Under Federal patent policy, rights to the device will remain in the public domain.

With current methods, many types of human and animal cells can be grown in the test tube, but they stop growing at concentrations much lower than their normal density in body tissues.

Researchers believe this is due in part to a lack of the continuous nourishment and cleansing action provided by the capillaries or tiny blood vessels that permeate normal tissue.

Under test tube conditions, cells function quite differently than they do in normal tissue, where the cells are in contact with each other and influence each other's activities.

The investigations have simulated the conditions of living tissue by growing cells inside a glass shell fitted with a bundle of tiny tubes through which a nutrient fluid, comparable to blood, is continuously pumped.

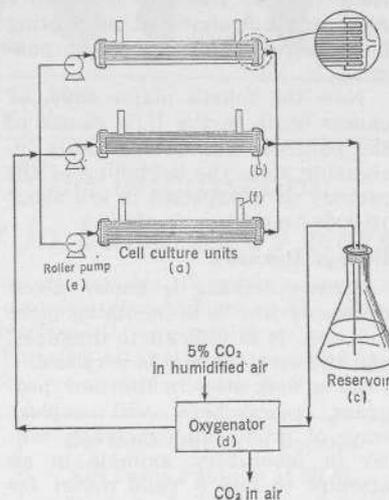
The cells grow over the surface of the tubes and in the spaces between them. Like blood vessels, the tubes are porous enough to allow oxygen and fresh nutrients to pass through the walls to the cells and cellular waste products to be removed.

Dr. Knazek and Dr. Gullino plan to use the new technique in cancer research. For example, by altering hormones and other ingredients in the nutrient fluid, they will study the conditions that promote or inhibit the growth of various kinds of cancer tissue.

The artificial capillary network is also an efficient way of collecting cell products. For instance, hormones produced by cells can be isolated from the fluid in which they are grown.

Drs. Knazek and Gullino believe that such artificial tissues might serve as living factories for the production of human hormones, now very difficult to obtain but necessary in the treatment of some diseases.

For example, using the system to grow tissue from cancer of the placenta (the organ in the pregnant uterus that establishes com-



A Cell Culture unit (a) consisted of a bundle of one or more types of hollow fibers (capillaries) sealed into each end of an 8-mm shell by silicone rubber or epoxy resin (b). Units may be arranged in parallel as shown or in series. Nutrient medium stored in a 125-ml reservoir flask (c) was oxygenated and brought to the appropriate pH by exposure to a humidified mixture of 5 percent CO₂ and air in a Dow Corning Mini-lung (d) before being pumped through each capillary bundle (pump RL-175, Holter)(e). Components were connected by silicone rubber tubing (3.2 mm outer diameter). Cells were inoculated onto the capillary bundles through shell side ports (f).

Booklet Describes Treatments Of Various Forms of Cancer

Treating Cancer, a booklet for the general public describing treatment of the various types and forms of cancer, is available without charge from the National Cancer Institute.

The 27-page publication discusses the various methods used to treat cancer including surgery, radiation, drugs, and immunotherapy.

Single copies may be obtained from the Research Information Branch, NCI, Bethesda, Md. 20014.

munication between mother and child), they and Dr. Kohler have already succeeded in obtaining human chorionic gonadotropin, a hormone of pregnancy.

This technique may also offer a new tool for the study of the effect of one type of cell on another. This effect might be studied by growing each cell type in separate systems but allowing the nutrient fluid to flow directly from one unit to the other.

NIH Visiting Scientists Program Participants

11/26—Dr. Miklos Palkovits, Hungary, Laboratory of Clinical Science. Sponsor: Dr. Irwin Kopin, NIMH, Bldg. 10, Rm. 2D46.

11/28—Dr. Valerio M. Genta, Italy, Lung Cancer Unit. Sponsor: Dr. Umberto Saffiotti, NCI, Bldg. 37, Rm. 3A19.

11/28—Dr. Miroslav Pokorny, Yugoslavia, Laboratory of Chemistry. Sponsor: Dr. Hewitt Fletcher, NIAMDD, Bldg. 4, Rm. 205.

12/1—Dr. Pradman Qasba, India, Laboratory of Biochemistry. Sponsor: Dr. Walter C. Schneider, NCI, Bldg. 37, Rm. 4A01.

12/4—Dr. Jorge A. Guimaraes, Brazil, Section on Physiological Chemistry. Sponsor: Dr. John J. Pisano, NHLI, Bldg. 10, Rm. 7D18.

12/8—Dr. Wolfgang K. Kissing, Germany, Laboratory of Chemistry. Sponsor: Dr. John Daly, NIAMDD, Bldg. 4, Rm. 227.

12/11—Dr. Adam Bekierkunst, Israel, Division of Cancer Cause and Prevention. Sponsor: Dr. Berton Zbar, NCI, Bldg. 37, Rm. 2B09.

12/18—Dr. Babasabeh R. Sonawane, India, Pathologic Physiology Branch. Sponsor: Dr. George W. Lucier, NIEHS, Research Triangle Park, N.C.

Outstanding Scientists Address NIDR Seminars on Dental Plaque

A series of seminars at NIH on the Development and Structure of Dental Plaque is being sponsored by the National Caries Program, National Institute of Dental Research. Outstanding scientists will address each seminar.

Dr. Irwin D. Mandel, School of Dental and Oral Surgery, Columbia University, addressed the first meeting in November.

Dr. Sigmund Socransky of the Forsyth Center in Boston, spoke at the second seminar held last month.



Dr. Nathan Watzman has been named chief of the Optometry, Pharmacy, Podiatry, and Veterinary Medicine Branch, DPHPE. Dr. Watzman will administer the Health Professions Educational Assistance programs in each area.

REHABILITATION

(Continued from Page 1)

Panelists made over 100 recommendations in six research areas.

- Support and palliation—projects to make the advanced cancer patient as comfortable and able to function as possible regardless of the extent of the disease.

- Head and neck restoration—programs to restore the patient with head and neck involvement to maximum function through maxillofacial prosthodontics and plastic surgery.

- Restoration of patients with cancers of the breast, extremities, and gastro-intestinal or genitourinary tract to maximum function consistent with their illness and treatment.

- Psycho-social—projects designed to return the cancer patient



Drs. Robbins (l) and Healey, conference co-chairmen, make preparations for one of the panel meetings.

to his former social environment.

- Vocation—programs to enable the cancer victim to return, as nearly as possible, to his way of life before the disease struck.

- Education—projects aimed at educating professionals, the public, the family, and most of all, the patient himself about cancer rehabilitation.

NCI Launches Program On Pancreatic Cancer; Makes Eight Awards

With the award of research contracts to eight institutions, the National Cancer Institute launched a new program aimed at preventing and controlling cancer of the pancreas.

Now the fourth major cause of cancer death in the U.S., cancer of the pancreas has been steadily increasing since the beginning of the century. It is expected to kill about 19,000 Americans in 1972.

Etiology Unknown

Almost nothing is known about causes or why it is becoming more common. It is difficult to diagnose, and the survival rate is very low.

As a first step in the new program, researchers will explore ways of producing pancreatic cancer in laboratory animals in an attempt to find a valid model for the human disease.

Contracts for the research have been awarded to the Boston University Medical School, Case Western Reserve University School of Medicine, Dartmouth Medical School, St. Louis University, University of Chicago, and the University of Kansas Medical Center.

Other Studies Noted

In a parallel line of research, scientists at the University of Tennessee and Wright State University will attempt to grow normal pancreatic cells of humans, rats, and guinea pigs in laboratory test tubes.

If they are successful, they will then add various cancer-causing chemicals to the cells in an attempt to produce cancerous changes.

Studies are also being started to attempt to single out population groups which are particularly susceptible to this form of cancer.

Future efforts will focus on causes, diagnosis and treatment of pancreatic cancer.

2 Noted Investigators—Drs. Albert Sabin, Charles Davidson—Are Fogarty Scholars



Dr. Sabin (l) recently returned from Israel where he headed the Weizmann Institute. During his tenure here, he will have an office in Stone House. Dr. Davidson has been affiliated with Harvard Medical School since 1941, when he was named a research fellow in medicine. He will reside at Stone House.

Two distinguished researchers have joined the Scholars-in-Residence Program of the Fogarty International Center. They are Drs. Albert B. Sabin, the world renowned virologist who developed the oral polio vaccine, and Dr. Charles S. Davidson, professor of medicine, Harvard Medical School.

Dr. Sabin entered the program as a Fogarty Scholar yesterday (Jan. 2); he will remain here through next December. Dr. Davidson joined the program on Dec. 4; he will remain in residence through June.

Before coming to NIH, Dr. Sabin was President of the Weizmann Institute in Rehovot, Israel. Prior to that post, he was Distinguished Service Professor and chief of Infectious Diseases, Children's Hospital Research Foundation in Cincinnati.

In 1968, Dr. Sabin delivered the lecture at the Jules Freund Memorial Seminar at NIH. He spoke on the viral etiology of human cancer—he is noted for his research on that subject and also on studies of dengue fever and arthritis.

The prestigious scientist has published a number of articles on his research, and is the recipient of many awards for his scientific achievements. He will work with NIH scientists and take part in international scientific issues.

Dr. Sabin will have an office in Stone House, but he and Mrs. Sabin will live in Washington, D.C.

Dr. Davidson, a graduate of McGill University, is known for his research in diseases of the liver.

In 1941, he joined the Thorndike Memorial Laboratory of Boston City Hospital, and was also named a Harvard Medical School research fellow in medicine. Dr. Davidson is responsible for the university's medical services in Boston City Hospital.

Dr. Davidson will work closely with Dr. Thomas C. Chalmers,

DR. JORDAN

(Continued from Page 1)

sity of Koln, Koln-Lindenthal, Germany. Previously she was a postdoctoral fellow at Harvard.

She received her B.A. in 1957 from Goucher College and her Ph.D. in 1962 from Johns Hopkins.

Dr. Jordan, a native of Germany, migrated to England with her family in 1947 and lived there until 1953 when she came to the U.S. She became a citizen in 1961.

She has received both pre- and postdoctoral fellowships from NIH, and a Helen Hay Whitney Foundation fellowship.

Dr. Jordan has authored and co-authored publications in the fields of galactose metabolism research and bacteriophage lambda genetics.

Booklet Describes the Progress Of Students in Nursing Careers

The characteristics of nursing students and the progress of their nursing careers is included in a publication—*From Student to RN, a Report of the Nurse Career Pattern Study*—issued by the Division of Nursing, BHME.

Copies may be obtained for \$1 each from the Superintendent of Documents, Government Printing Office, Washington, D.C. 20402.

Educators, researchers and community groups may request a single free copy from the Division of Nursing, 9000 Rockville Pike, Bethesda, Md. 20014.

Clinical Center Director, and will also teach at the CC. During his stay on the campus he will reside at Stone House.



Dr. Christian B. Anfinsen, chief, Laboratory of Chemical Biology, NIAMDD, and Dr. Joe R. Held, DRS Director and acting chief, Library Branch, view an exhibit honoring Dr. Anfinsen as the winner of the 1972 Nobel Prize in Chemistry. The exhibit will be on display in the NIH Library until February.