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NIH KICKOFF

U.S. Savings Bond Interest Rate Raised

The interest rate on U.S. Savings Bonds has been raised 1 percentage point to 9 percent, effective May 1. The new rate will apply to series EE bonds purchased on or after that date if held to maturity.

The U.S. Treasury Department has also shortened the term of maturity on the bonds to 8 years from 9 years. These changes will affect all outstanding bond interest rates starting with the first semi-annual interest-accruing date occurring after May 1.

Simultaneously with the announcement of the U.S. Treasury bond interest rate increase, the annual U.S. savings bond campaign is slated to begin at NIH May 18 through June 12. Entitled "Be a Double Winner," this year's theme will encourage employees to buy bonds and become eligible to win door prizes donated by the R&W Association.

Free raffle tickets will be given to each employee who takes out a new bond or increases allotments on previously issued bonds. Three winners will be picked and a prize will also be given to the most successful B/I/D canvasser at the end of the campaign.

Dr. Carl D. Douglass, Director, Division of Research Grants, is the NIH bond drive

(See *BONDS*, Page 12)



Laetrile Clinical Trial Shows Drug To Be Ineffective

A clinical trial of Laetrile in 178 patients has shown the controversial drug to be ineffective as a treatment for cancer.

The purpose of the trial, which began July 1980, was to determine in a scientific study whether Laetrile, plus a "metabolic therapy" program of special diet, enzymes, and vitamins, did or did not have antitumor activity. According to results of the study no substantive benefit from Laetrile has been observed in terms of cure, improvement, or slowing the advance of the cancer, improvement of symptoms related to cancer, or extension of life span.

The Laetrile trial, supported by National Cancer Institute grants, was conducted at the Mayo Clinic in Rochester, Minn., by Dr. Charles Moertel; at the UCLA Jonsson Comprehensive Cancer Center by Dr. Gregory Sarna; at the University of Arizona Health Sciences Center in Tucson by Dr. Stephen Jones; and at Memorial Sloan-Kettering Cancer Center in New York City by Dr. Charles Young. The Mayo Clinic has been coordinating the data from all four institutions with Dr. Thomas Fleming as statistician.

Results of the study were presented in a paper, A Phase II Trial of Amygdalin (Laetrile) in the Treatment of Human Cancer, by Dr. Moertel at the American Society of Clinical Oncology meeting in Washington, D.C., Apr. 30.

Results to date are based on data from a core group of 156 patients of the 178 enrolled in the study. Of the remaining 22: 14 patients were recently placed on very high doses of Laetrile and only preliminary data are available; 1 patient was considered ineligible because the initial diagnosis of cancer was not confirmed; 4 patients are currently being evaluated; and 3 others were not evaluable because 1 left the study after only 8 days, and 2 died within 3 days of starting treatment from causes not directly related to cancer.

The clinical trial with Laetrile followed the same approach used by NCI to test other compounds for effectiveness in treating cancer. Criteria for selecting patients for the study were similar to the criteria used for all initial studies of other compounds. Informed consent was required.

(See *LAETRILE*, Page 10)

Dr. Gilbert Ashwell To Deliver NIH Lecture, May 27

Dr. Gilbert Ashwell, chief of the Laboratory of Biochemistry and Metabolism of the National Institute of Arthritis, Metabolism, and Digestive Diseases, will deliver the NIH Lecture on Wednesday, May 27, at 8:15 p.m. in the Masur Auditorium.

He will speak on the role of carbohydrates in the recognition of glycoproteins by liver cells in a talk entitled The Current Status of Hepatic Membrane Receptor for Desialylated Serum Glycoproteins.

The research Dr. Ashwell will describe forms the basis of current knowledge about the role that cell surface carbohydrates play in cellular recognition phenomena. This seminal work began in 1966, when he and Dr. Anatol Morell of the Albert Einstein College of Medicine made an observation that led to the first identification of liver cell receptors.

They observed that the content of one of the sugars in serum glycoproteins, sialic

(See *Dr. Ashwell*, Page 11)

Recombinant DNA Committee To Review NIH Guidelines

The NIH Recombinant DNA Advisory Committee has voted to set up a special panel to comprehensively review the NIH Guidelines for Recombinant DNA Research.

At its 22nd meeting at NIH on Apr. 23 and 24, the group, comprised of 25 scientists and laymen appointed by the Secretary, proposed numerous recommendations to be presented to the NIH Director. Among these were recommendations to exempt entirely from the guidelines certain specific experiments, and to amplify the sections of the guidelines dealing with genes coding for toxins.

The special panel will include members of the committee and nonmembers selected by the committee chairman. They will report to the full committee in September. All final recommendations will then go to the NIH Director.

Public comment will be solicited during the process of review and recommendations. □

The NIH Record

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FIC Seminar Series Organized

The Fogarty International Center Scholars Program is holding a series of seminars organized by Dr. Hans Lindner, an FIC scholar from Israel.

The first seminar in the evening series will be held in the Masur Auditorium, Bldg. 10, at 8 p.m., May 14. The subject will be The Relationship of the Sodium Pump and the Src Gene in Cancer Cells. The speakers will be Prof. Ephraim Racker, Cornell University, and Dr. Edward Scolnick, NCI. □

Preschool Sponsors Fund-Raising Events for Day-Care Programs

The NIH Preschool Development Center is sponsoring several fund raising events in May and June.

A book fair will be held on May 12-13 in Bldg. 35 patio area; May 19-20 in Bldg. 10; and May 26-27 in Bldg. 31 patio area. New and high quality children's books will be on sale.

On Saturday, May 30, the 2nd annual "Spring Fest" will be held at the Ayrilawn Elementary School, 5650 Oakmont Ave., Bethesda. It will include a rummage and bake sale. A puppet show, sponsored by the Blue Sky Puppet Theater, will begin at 11 a.m. Admission is \$2.50.

Tax deductible contributions—furniture, housewares, toys, books, etc.—may be brought to the NIH Preschool in Bldg. 35. Arrangements for pickup of large items can be made. For further information call 496-5144.

On Saturday, June 6, at 11 a.m., the Bob Brown Puppets will perform at the Ayrilawn Elementary School. Tickets cost \$2.50 each and will be available either at Ayrilawn or at the Preschool.

A crafts fair, sponsored by the Professional Craftsmen's Association will be held on June 9, 10, and 11 in Bldg. 31 patio area. A varied selection of pottery, macrame, jewelry, and leather goods will be on display. □



An orderly rally by the People for the Ethical Treatment of Animals, attended by approximately 100 animal rights supporters, was held on the NIH campus on Friday, Apr. 24. Held with NIH permission, the rally featured country music and speakers who urged a basic policy change in the use of laboratory animals.

Many Topics Featured During Career Week

Activities for Career Options in the 80's, which focus on career development for NIH employees and begin May 16 through 22, were outlined in the Apr. 28 issue of the NIH Record.

A list of additional information on the various activities follows:

On Monday, May 18, from 11:30 a.m. to 1:30 p.m. in the Masur Auditorium, the panel discussion on Achieving Career Success will be moderated by Dr. Nancy Cummings, NIAMDD. The panelists are:

- Honorable Lynn Martin, U.S. Congresswoman from Illinois
- Dr. Victoria Barrera-White, HSA, PHS
- Naomi McAfee, Westinghouse Electric Corporation
- Dr. Carolyn Payton, Howard University
- Renee Poussaint, WJLA-TV, Channel 7

The panel discussion will be followed by a salute from the Women's Advisory Committee recognizing individuals who have significantly contributed to employee

career development. The Monday program will conclude with an open reception in the Clinical Center cafeteria.

Workshop Subjects on Wednesday, May 20 will include financial planning productivity through stress management, holistic approach to women's health, career life goal setting, career development, and SF 171 preparation.

Thursday, May 21, topics will cover financial planning; stress management; superwoman—role conflict, time management and child care; concerns of disabled women; assertiveness on the job; creative woman and self-image; and professional burn-out. For times and meeting locations, call the Federal Women's Program Office, 496-2112.

Dr. Donald S. Fredrickson, NIH Director, has urged, in a formal memorandum, that supervisors arrange work schedules to allow for maximum employee participation. □

Symposium on Worldwide Aging Activities To Be Held May 27

The National Advisory Council on Aging will hold an afternoon symposium in conjunction with its regular meeting on Wednesday, May 27, at 1 p.m. The symposium will take place in Wilson Hall, Bldg. 1, and will be open to the public.

Global Activities Discussed

The purpose of the symposium on International Developments in Aging is to inform participants of the activities in aging currently being conducted throughout the world.

In addition, participants will be given an opportunity to offer guidance on the NIA's role in its recent designation as the first World Health Organization Collaborating Centre for Joint Cooperation on Research on Care of the Aged. Participants will also

advise the NIA on its role in the 1982 United Nations World Assembly on the Elderly.

Dr. Malone To Speak

Dr. Thomas E. Malone, NIH Deputy Director, will open the symposium. Presentations will be made by Dr. Sune Bergstrom and Dr. David Hamburg of the WHO Global Committee on Medical Research; by Dr. Jo E. Asvall of the WHO Regional Office in Europe; and by Mr. John W. McDonald, Jr., U.S. State Department Coordinator for the UN World Assembly.

A panel discussion will follow, moderated by NIA Director Dr. Robert N. Butler, who has been named principal investigator and head of the WHO Collaborating Centre for the Aged. □

FASEB Holds 65th Meeting in Atlanta

Over 12,000 scientists, exhibitors, and guests attended the 65th Annual Meeting of the Federation of American Societies for Experimental Biology in Atlanta, Ga., on Apr. 12-17.

Participating at the meeting were five FASEB member organizations; the American Physiological Society, the American Society for Pharmacology and Experimental Therapeutics, the American Association of Pathologists, the American Institute of Nutrition, and the American Association of Immunologists. Guest societies also participating were the Biomedical Engineering Society, and the Society for Experimental Biology and Medicine.

Dr. John R. Vane of Wellcome Research Laboratories, Beckenham, Kent, England, was the primary general session speaker who discussed Prostacycline in Health and Diseases.

A total of 5,361 scientific abstracts were programmed in 484 sessions. The three major themes of the meeting were in the areas of membrane, atherosclerosis, and neurobiology and biobehavior.

Among the NIH components exhibiting at the meeting were the NIH Office of Communications, operating the "Central NIH" booth; the National Heart, Lung, and Blood Institute; the National Institute of Child Health and Human Development; the National Institute of Arthritis, Metabolism, and Digestive Diseases; and the Biotechnology Resources Program of the Division of Research Resources.

In addition, grantee scientists from the Medical University of South Carolina manned a special CLINSPEC booth provided by the Division of Research Resources.

The FASEB meetings are considered the largest-attended annual scientific meetings in the world. The 1982 meeting will be held in New Orleans on Apr. 15-23. □

Do you Speak English And Want to Improve? New Workshop Can Help

Career and career-conditional NIH employees for whom English is a second language and who are in need of improving their English skills, can now apply for either of two new workshops that are beginning.

Kay Bouchard will be teaching the courses that stress refining and expanding a person's English vocabulary, grammar skills, and writing technique.

The classes, restricted to 15 students, are for those NIH employees who are now getting along well with English, but would like to improve their proficiency.

Registration deadline is Tuesday, May 19, and all DHHS 350's must be submitted to Richard Jackson, project officer, Career Development Branch, Bldg. 31, Rm. B2C-29.

The workshops, which begin on Thursday (May 21-July 9) and Tuesday (May 26-July 14), will be taught in Bldg. 31, Rm. B3C-02B on both days from 5 to 6:30 p.m.

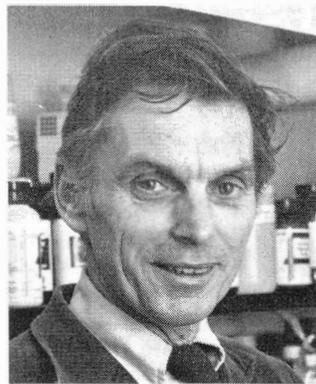
There is no cost to either the individual or B/I/D.

For further information call 496-5025. □

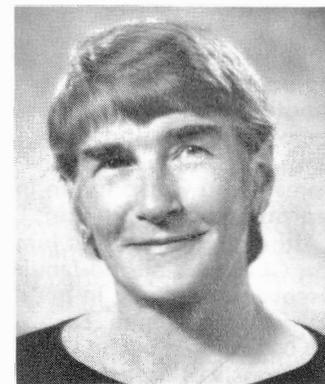
Three NIH Researchers Among New Members Elected to National Academy of Sciences



Dr. Dawid



Dr. Potter



Dr. Stadtman

Three NIH researchers were among the 60 new members elected to the National Academy of Sciences on Apr. 28. They were recognized for their distinguished and continuing achievement in research.

Membership in the academy is considered to be one of the highest honors that can be accorded an American scientist or engineer. The names of those who had been elected were released during the academy's 118th annual meeting held in Washington, D.C. These new members bring the total number of scientists so honored to 1,352.

This Year's Recipients

The NIH recipients are: Dr. Igor B. Dawid, chief, section of developmental biochemistry, Laboratory of Biochemistry; Dr. Michael Potter, head, immunochemistry section, Laboratory of Cell Biology, both of NCI; and Dr. Thressa C. Stadtman, section head, intermediary metabolism and bioenergetics, Laboratory of Biochemistry, National Heart, Lung, and Blood Institute.

Dr. Dawid's research interests include biochemistry development; structure and function of the eukaryotic genome. He received his doctoral degree in chemistry in 1960 from the University of Vienna. Over the last decade, he has held a variety of editorial positions with professional publications, and is currently the advisory editor of *Developmental Biology* and associate editor of *Cell*.

Dr. Potter was cited for his work in

immunochemistry after giving the prestigious Heidelberger Lecture in 1979. Particularly noted was his work on plasma cell tumors which is considered to have been crucial to the understanding of antibody structure and specificities. His collecting and maintaining of hundreds of plasmacytomas in inbred mice and his search to identify and study those with various antibody specificities have provided an invaluable resource to investigators throughout the world.

In 1979, Dr. Stadtman was co-recipient of the Hillebrand Award and was honored for her research in the biochemistry of vitamin B₁₂ and its derivatives and on the functional role of selenium in metabolism.

A vitamin B₁₂ deficiency can result in pernicious anemia, and the vitamin or its derivatives have been shown to participate as catalysts in 12 separate biochemical reactions. Five of these were discovered in Dr. Stadtman's laboratory.

Previously Elected Members

Last year Dr. Joseph E. Rall, director of the Intramural Research Program of the National Institute of Arthritis, Metabolism, and Digestive Diseases, and Dr. Louis Sokoloff, chief of the Laboratory of Cerebral Metabolism, National Institute of Mental Health, were elected to the National Academy of Sciences.

In 1979, other NIH researchers chosen for membership were: Drs. Gilbert Ashwell, William A. Hagins, Philip Leder, and Maxine F. Singer. □

Grants Booklet List Career, Research Awards

The publication, *National Institutes of Health Research Grants, Fiscal Year 1980 Funds*, has been published by the Division of Research Grants and is available free.

The new booklet lists 19,941 research career and research grants awards, and gives a summary of financial support by each component. In addition, grants and awards are shown by recipient area, principal investigator, and the organization having professional responsibility for the work.

Two More Booklets Due

Two more booklets, covering contracts, training, construction and cancer control

grants, and medical libraries support, are in preparation and will be released by early summer.

A single copy of *NIH Research Grants, Fiscal Year 1980 Funds* may be secured by writing to the Office of Grants Inquiries, Division of Research Grants, NIH, Bethesda, Md. 20205, or call 496-7441. □

Every great advance in science has issued from a new audacity of imagination.—John Dewey (1859-1952)

Breast Disease Diagnostic Clinic Offers Two Treatment Alternatives

By Jody Dove

"It happened all of a sudden. I was sleeping one day, and suddenly I felt some shooting pains in my breast. So I got up to see what it was, and when I felt it, it was a lump," recounted Gloriana Suppiah, a woman who works for an international organization in Washington, D.C.

Although most breast lumps are not cancer, Gloriana's all-too-familiar story of the discovery of a lump in her breast arouses fear in most women. Each year, more than 100,000 women in the United States receive a diagnosis of breast cancer.

When a woman finds a lump in her breast, she is confronted with the immediate problem of where to go for diagnosis. To make this initial decision easier, the National Cancer Institute has opened a Breast Disease Diagnostic Clinic at the Clinical Center.

Women who have felt a mass in their breast and wish to have it examined and diagnosed, and women who have already received a diagnosis of cancer but would like to obtain a second opinion, are welcome to make an appointment to come to the clinic.

A woman may call NCI directly, or she can have her personal physician call to make the appointment. If a woman makes the initial contact herself, the NCI physicians will request the name and telephone number of her personal physician who will be contacted to discuss her medical history and present status.

Women who come to the Breast Disease Diagnostic Clinic will be seen by Dr. Allen S. Lichter, Radiation Oncology Branch, Dr. Ernest V. deMoss, Surgery Branch, and Cathy Gorrell, R.N., MSN, Nursing Department.

A case history will be taken, a physical examination will be performed, and if indicated a mammogram and biopsy will be performed, free of charge. Women who have already had a biopsy performed by their own physician will be asked to bring their slides to the clinic.

"We want to see women with a newly discovered breast mass—not one of a series of cysts," explained Dr. deMoss. "We are also looking for women who want a second opinion and confirmation of a biopsy," he continued.

In conjunction with the diagnostic clinic, Drs. Lichter and deMoss are also in charge of a study at the CC comparing treatment of early-stage breast cancer. This randomized clinical trial compares total mastectomy, the removal of the breast and underarm lymph nodes (also called modified radical mastectomy), to removal of the lump and lymph nodes followed by external radiation therapy and temporary implantation of radioactive iridium seeds.

If removal of the lump with radiation therapy is proven to be as effective as total mastectomy, women who develop breast cancer in the future may have the option to undergo less disfiguring therapy without risk to their survival.

A woman who comes to the Breast Disease Diagnostic Clinic and receives a diagnosis of cancer will be informed about the trial and invited to participate if she is a suitable candidate. A woman is under no obligation to join the study if she is examined at the clinic. She may come only to receive a diagnosis or a second opinion.

When Gloriana discovered the lump in her breast, she went to her own physician. It was a Monday afternoon, and he immediately ordered a mammogram for her. The results were suspicious, and Gloriana went to see a surgeon Friday morning, who did a needle aspiration of the lump.

"When I went back in the afternoon, the surgeon told me that it was malignant, and said that if I was a member of his family, he would have me in the hospital on Monday for a mastectomy," related Gloriana.

"And I wasn't too keen on having a mastectomy, just like that. I heard that there were too many operations that were unnecessary, and I preferred to get a second opinion."

Gloriana went back to her physician, who suggested getting a second opinion at the Clinical Center. Gloriana was interested. She called the CC and spoke to Ms. Gorrell, who explained the breast program to her. Gloriana came to the CC and was seen by Drs. Lichter and deMoss who examined her, performed a biopsy and also looked at the slides from the needle aspiration.

For Charlie, a registered nurse from West Virginia who discovered a lump in her breast, coming to the Breast Disease Diagnostic Clinic also was suggested by her own physician after a mammogram looked suspicious.

Charlie and Gloriana received confirmed diagnoses of breast cancer. Both decided they would like to participate in the clinical trial and receive treatment at the CC—Charlie, because she felt she "couldn't get any better care anyplace in the world," and Gloriana, because she believed that by



Ms. Gorrell, Dr. Lichter (c), and Dr. deMoss confer about a patient's mammogram results. Mammograms are used in diagnosing a palpable lump in the breast or under the arm to help determine whether a biopsy should be performed.

participating in the study, "something can come about that will be wonderful for everyone."

To become patients, it was first necessary to make sure that they were suitable candidates for the study. To be a candidate, a woman must have a lump less than 5 centimeters (2 inches) in diameter, she must have received no prior therapy for her cancer (no surgery other than removal of the lump, no radiation therapy, and no chemotherapy), she must be in good general health, and there must be no obvious spread of the cancer. Determination of whether the cancer is confined to just the breast is made through further testing.

"In 2 days I went through 18 hours of extensive testing—more mammograms, bone scans, liver scans, X-rays, blood tests. It wasn't painful in the slightest. Ms. Gorrell very carefully laid out an itinerary with time periods for the tests posted on it, and I really didn't run into any confusion.

Sensitive Care Given

"I couldn't believe the care that they took to not only be sensitive and kind, but to get me through each appointment in time. Everyone was very, very helpful, and at the same time, very conscious of what I might be going through," remembered Charlie.

Charlie and Gloriana qualified for the study. They agreed to participate after Drs. Lichter and deMoss and Ms. Gorrell fully explained the study to them and the necessity for randomization.

Based on a decision made through a randomization process, Gloriana and Charlie would be assigned to either the mastectomy group or the group that is treated by removal of the lump with radiation therapy.

This avoids any possibility of patients and doctors influencing the study outcome, and ensures that the two treatment groups will have equal numbers of patient types.

"We wouldn't accept a woman into the study unless we were confident that she would benefit from either therapy," explained Dr. Lichter. "We don't suspect that one treatment is superior to the other, and we have no ethical problems in offering either treatment to the patient."

For Gloriana, computer randomization led to radiation therapy. For Charlie, it resulted in mastectomy. Both women were satisfied with the results of the randomization process.

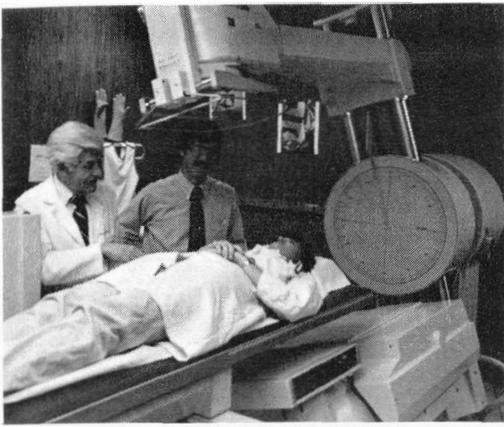
"I had preferred radiation," confessed Gloriana, "although it would not have mattered either way."

Because Gloriana had her lump removed by Dr. deMoss to confirm the diagnosis of cancer, her only remaining surgery was for the removal of her underarm lymph nodes. She then received 5 weeks of radiation therapy to her breast.

"The radiation treatment didn't bother me at all. There was a little bit of sensitivity, which was like a shooting pain, once in a while. The breast was discolored, but it's now coming back to normal," she observed.

Radioactive iridium seeds were then implanted in the affected area of Gloriana's breast for 2 days to bolster the treatment.

Charlie had her total mastectomy and removal of the underarm lymph nodes ac-



Before radiation therapy is administered to a patient, a mock-up of the treatment is first planned to determine the size of the field the radiation will need to cover. The simulation machine is equipped with an X-ray head to photograph the areas where she will be given radiation. Typically, it requires 1-1½ hours to complete the measurements.

complished in one operation. Like many other women faced with breast cancer, she would prefer not to have lost her breast, although she feels the adjustment has not been difficult for her.

"Tremendous research has been done and there are tremendous possibilities. I've seen photographs now of reconstruction surgery, that I will very definitely consider when I've finished treatment," she explained.

NCI offers breast reconstruction to mastectomy patients in this study as part of its



Physical therapists play an important role in caring for breast cancer patients at the Clinical Center. Marsha Lampert (l), senior physical therapist, works with patients to help them regain full use of their shoulder and arm muscles following removal of underarm lymph nodes. If a woman has had a total mastectomy, she will also be fitted for a prosthesis by the physical therapists before she leaves the Clinical Center.

therapy, not before 6 months after the mastectomy is performed, and if a woman's medical condition is satisfactory.

Charlie and Gloriana are now receiving chemotherapy once a month for the next year because removal of their lymph nodes showed that several contained cancer cells. These "positive" lymph nodes indicate that the two women are at greater risk of having their cancers recur.

Anticancer drugs help rid the body of these cancer cells. The chief complaint expressed by both women has been hair loss due to the effect of the drugs. The CC has provided them with wigs to better cope during the time that it will take for their hair to grow in again.

Gloriana and Charlie are optimistic about the future. They will be followed up at the CC for the next 10 to 15 years to determine the long-range effectiveness of the treatments they received.

"The support that you have here is just great," exclaimed Charlie. "I know that the biggest fear for many women is, 'I don't want to leave my home, my family, my doctor, I just don't want to be away from them at this time.' But they would find that they would get support in every way in this study," she added.

"Dr. Lichter and Dr. deMoss are terrific," Gloriana remarked, "and I think that's what patients want—someone who can give them the time to explain things and put them at ease.

"Patients who come here really feel at home in the sense that they know that what the doctors are doing, is really something they care about. And they do care about their patients," she stated.

A woman who wishes to make an appointment to be seen at the Breast Disease Diagnostic Clinic, or a woman who wishes to learn more about the clinical study comparing treatment of early-stage breast cancer, can contact either Dr. Lichter, (301) 496-5457, or Dr. deMoss (301) 496-1534. Patients will be seen at the clinic every Wednesday afternoon from 1 to 4 p.m., by appointment. □

Comprehensive Slide Collection Enhances Talks, Seminars

A slide collection called *Build Your Own Briefing* is now available from the Audiovisual Branch, Division of Public Information, OD. A set of nearly 140, 2"x2" color slides gives a graphic introduction to the research, activities, and grounds of NIH.

Requesters may borrow the whole collection, or individual slides to help illustrate their talks. A notebook with short captions and more detailed background information accompanies each slide.

Some of the most popular slides are the aerial views of NIH, pictures of buildings, and shots of modern diagnostic and laboratory equipment showing the uniqueness of NIH.

For more information on the *Build Your Own Briefing* collection, contact Dale Blumenthal, 496-5895, Bldg. 31, Rm. 2B-37, ALV Branch, DPI. □



Ms. Blumenthal examines a slide in the collection from which NIH speakers may borrow.

Teaching Nursing Homes Proposed by NIA Director

The creation of teaching nursing homes— as counter-parts of teaching hospitals, well-known for their research and training missions—was recently proposed by Dr. Robert N. Butler, Director of the National Institute on Aging, in a *Journal of the American Medical Association* article.

Teaching nursing homes would help the Nation gear its biomedical and other research and training capacities to the needs of the growing elderly population. Research and training in geriatrics is a long-neglected area, and this void partially accounts for the poor public image of today's nursing homes. Teaching nursing homes would set examples for the country's 18,000 community nursing homes.

The teaching nursing home program proposed by Dr. Butler would focus on such research subjects as "senility" or senile dementia, fecal and urinary incontinence, and gait disorders. Also included are management of bedsores and pain, nutritional problems in healing and rehabilitation, drug interactions, design and demonstration of artificial body parts, influence of architectural design on mental and physical well-being of patients, and ways to moderate the impact of the patient's death on surviving family members.

In addition to conducting research, the model facility would be a place for training professionals for careers in research and service. Young doctors, nurses, pharmacists, social workers, nurses aides, and physical, occupational, and speech therapists would have opportunities to work and learn collaboratively.

Currently, the Nation's nursing home expenditures approach \$22 billion a year and probably will quadruple by 1990. Not enough is known about effective and cost-saving methods of diagnosis and treatment nor about ways to prevent illness or bring older people back to health.

It would be to the advantage of both the public and private sectors to make sure that the huge sums spent on long term care are spent as effectively as possible.

Dr. Butler said, "As long as this service area lacks a solid research and training base, our programs will be chained to ineffective or partially effective methods of diagnosis, treatment, prevention, and rehabilitation, to procedures less efficient or more costly than need be, and to an arid intellectual and numbing emotional climate in long-term care." □

Workshop To Be Held On Periodontal Surgical Therapy

The National Institute of Dental Research will sponsor a workshop on surgical therapy for periodontitis on May 13-14, in the Masur Auditorium.

General dental practitioners, periodontists, academicians, specialists in preventive dentistry and representatives of the scientific community will gather to evaluate the current state of the art of surgical therapy for this form of periodontal disease.

Space is limited for public attendance. □

Lower Rates of Cancer Reported Among Certain Groups

Data on population groups with unusually low cancer rates appear in a monograph, entitled *Population at Low Risk of Cancer*, in a recent issue of the *Journal of the National Cancer Institute*.

The rates of new cases or deaths from cancer are reported for several religious and ethnic groups and for nonsmokers.

The reports include information on cancer in white Protestant clerics, Mormons, Seventh-Day Adventists, and Hutterites, an isolated communal group in South Dakota descended largely from immigrants from Austria, southern Germany, and the USSR.

The ethnic groups studied include: Japanese, Chinese, Filipinos, and native Hawaiians in Hawaii; Chinese and Japanese in California; and Alaskan Indians, Eskimos, and Aleuts.

Three studies in nonsmokers examined cancer risks in U.S. veterans, in more than 1 million men and women whose cancer experience was monitored since 1959 by the American Cancer Society, and in citizens queried in two Federal surveys conducted in the 1960's.

A lower risk for developing certain types of cancer was reported among religious groups that prohibit smoking.

Among Mormons, Seventh-Day Adventists, and Hutterites, who abstain from tobacco use, cancers of the lung, mouth, larynx, pharynx, esophagus, kidney, bladder, and pancreas are less common than in the U.S. white population.

For body areas not associated with smoking (stomach, colon, rectum, uterine cervix, ovary, and female breast), Mormons still had lower cancer rates than did non-Mormons. The higher birth rate among Mormon women was suggested as a reason for the lower breast cancer rate.

Decreased rates of cervical cancer among Mormons, Seventh-Day Adventists, and Hutterites are consistent with the warnings against promiscuity by these religious groups. Diet may also be important in the lower rates for some cancers. Mormons and Seventh-Day Adventists abstain from drinking coffee, tea, and alcohol.

Other findings suggested that socioeconomic status, environmental factors, and inherited susceptibilities contribute to the origins of some cancers.

The report was edited by Dr. Brian MacMahon, Harvard School of Public Health, Boston.

Risks were not reduced for all types of cancer in so-called "low-risk" populations. Mormons had at least as many melanomas and cancers of the lip, prostate, and testis as did non-Mormons.

Japanese in the U.S. had lower colon cancer rates but much higher rates of stomach cancer than white Americans. Alaskan Indians, Eskimos, and Aleuts had low rates of cancers of the lung, larynx, bladder, prostate, breast, and uterus, and higher rates of cancers of the nasopharynx, salivary gland, kidney, gallbladder, and liver. □

NIEHS Researcher Advises Chemical Exposure Should Be Considered When Examining Kids

Pediatricians are being exhorted to maintain "a high index of suspicion" in looking into environmental and occupational chemical exposure as a possible source of disease in children, according to Dr. Walter J. Rogan.

In a *Journal of Pediatrics* article, Dr. Rogan notes that exposures not high enough to cause symptoms in adults can cause toxicity in the fetus or in a child. Exposures may occur from chemicals or other toxic substances brought home from work on parents' clothing or encountered by a child through the ambient environment, or through catastrophic situations such as chemical spills.

Puzzling symptoms, signs, or laboratory abnormalities may be related to chemical exposures, observed Dr. Rogan, an epidemiologist in the Biometry Branch of the National Institute of Environmental Health Sciences. Additionally, inquiry into the occupation and hygiene of all who live with children may reveal contamination leading to adverse health effects.

Exposures Noted

Occupations involving exposures to toxic substances are not uncommon. One route by which children may come in contact with environmental toxins is through contamination of human milk. Dr. Rogan said that, "any highly lipid (fat) soluble chemical with which a woman comes in contact might well appear in her milk."

Children and infants share with all people a general body burden of chemicals widely dispersed in the environment such as PCB's and DDT. These are passed to them through breast milk and through the same means as adult exposure—water, food, air, and in some cases bodily contact.

Pediatricians should be aware that there are occasions when infants are breastfed at the workplace thus causing exposures that are more immediately transmitted.

Dr. Rogan cites an incident where a woman ate lunch with her husband daily in a dry cleaning shop. Her exposure to cleaning substance caused prolonged cholestatic jaundice in her breastfed child, which was resolved once the source was discovered and breast feeding stopped.

Housing itself may be a clue in tracking down an environmental disease source. New energy efficient homes and older homes restored by young families present potential situations where children might be exposed to toxic substances.

Better insulated, more tightly constructed homes tend to retain carbon monoxide from wood and coal heating systems, as well as fumes given off by fiberboard and other construction materials containing formaldehyde.

Restoration of inner city housing reintroduces the hazards from lead-based paint to small children. The lead reenters the air in dust particulates when old painted surfaces are sanded. Lead has also caused problems in homes where battery casings have been used as fuel for heating.



Dr. Rogan said that children and infants share the same body burden of chemicals as adults.

Other childhood exposures have occurred as the result of catastrophic incidents such as the 1976 exposure of tetrachlorodibenzo-p-dioxin (TCDD) at Seveso, Italy, when the substance was released because of an industrial explosion, and the 1968 PCB exposures in Yusho, Japan, where it was discovered that rice oil had been contaminated.

In the U.S., waste dump sites similar to New York's Love Canal, pose a long-term challenge to researchers and clinicians, as the health effects of exposures to multiple substances must be discerned.

"The management of persons exposed to potentially toxic agents can be vexing. The human toxicity to be expected from an agent may be unfamiliar to the clinician or may be unknown. Not all persons exposed may have symptoms, and different symptoms may be seen in different people," Dr. Rogan stated.

"When the exposure is to be a carcinogen, the expected latency period of many years makes prognostication difficult; finally, the fear of litigation, testimony, etc., may be present."

Nonetheless, since these diseases are among the most preventable, the rewards for maintaining the "high index of suspicion and exploiting research opportunities as they arise is substantial," Dr. Rogan concluded. □

R&W Travels To Baltimore To See Orioles

R&W is sponsoring several trips to Baltimore this summer to see the Orioles.

The \$10.50 fee includes bus fare and reserved seats for baseball games on the following dates: Thursday, July 9, Boston Red Sox; and Thursday, Aug. 13, Kansas City Royals.

Sign up now at the R&W Activities Desk, Bldg. 31, Rm. 1A-18. □

Minority Biomedical Support Symposium Features Endorphins, Fetal Alcohol Syndrome, Cancer, and Recombinant DNA Studies

Endorphins, fetal alcohol syndrome, cancer research, and recombinant DNA technology were featured topics during the Ninth Annual Minority Biomedical Support Program Symposium attended by more than 1,500 biomedical scientists and student researchers Apr. 3-6 in Albuquerque, N. Mex.

The 4-day meeting, the largest annual gathering of minority scientific investigators in the U.S., was coordinated by the University of New Mexico with funding from the MBS program of the Division of Research Resources.

Research showing that alcohol may cause more throat cancer than smoking was reported during the symposium by Dr. Richard Deitrich of the University of Colorado School of Medicine, when he discussed the biochemical aspects of alcohol metabolism during the workshop on fetal alcohol syndrome.

Cites Research

He cited research showing that alcohol has a definite carcinogenic effect which seems to be stronger than nicotine, and that individuals having more than two drinks a day have been shown to have a higher incidence of esophageal cancer than smokers.

Also participating in the fetal alcohol syndrome workshop were Dr. Dora Goldstein, professor of pharmacology at Stanford University and Dr. Jon Aase, associate professor of pediatrics at the University of New Mexico.

Dr. Avram Goldstein, director of the Addiction Research Foundation and professor of pharmacology at Stanford University, said during the endorphin workshop that 5 years after he started studying the effects of morphine he was among a team of researchers who discovered endorphins, a chemical in the brain that acts like pain-killing morphine in the body.

Last year he discovered dynorphin, "which is so powerful and selective on nerve cells that it could hold the key to stopping pain," he told the student scientists. Other endorphin workshop panelists were Dr. Candace Pert, a research pharmacologist at the National Institute of Mental Health, and Dr. William D. Willis, director of the Marine Biomedical Institute at the University of Texas Medical Branch at Galveston.

Other Speakers Noted

The cancer research workshop involved a look at the evolution of immunocytotoxicity in the control of cancer by Dr. Edwin Cooper, professor of anatomy at UCLA; an examination of the molecular aspects of cancer cell membrane interaction by Dr. Kenneth Olden, associate director for research of the Howard University Cancer Research Center; and a presentation on the potential treatment of cancer with antibiotic and cytotoxic agents by Dr. Raul Alavarez, an investigator in medical oncology at the National Cancer Institute.

The major scientific presentation, the George Willis Memorial Lecture, was deliv-

ered by Dr. David Gardner from the University of California's endocrinology section at San Francisco's Moffitt Hospital. Dr. Gardner discussed the application of recombinant DNA technology. The George Willis Lecture honors a late scientist who helped establish the MBS Program at NIH in the early 1970's.

Keynote speakers include U.S. Senator Harrison Schmitt, who discussed the role of the scientist in society, and U.S. Representative Manuel Lujan, who gave his views on the role of the Federal Government in the funding of biomedical research.

The banquet speaker was Dr. Geraldine Woods of Los Angeles, chairman of the board of trustees at Howard University, and consultant to NIGMS. The annual symposium is part of the MBS program's effort to increase the involvement of ethnic minority faculty and students in the biomedical sciences and health professions.

The major emphasis is to tap a previously untapped talent pool, the minority community, to contribute to the biomedical research process in the United States. The University of New Mexico is one of the grantees in the MBS program.

New Mexico native, Dr. Ciriaco Q. Gonzales, MBS program director within the Division of Research Resources, presented opening remarks to the students and faculty. Representatives from several NIH Institutes were available during the seminar to meet with students and faculty regarding research activities within the institutes. □

FIC Publishes Book On Health Care in Canada

Universal Free Health Care in Canada, 1947-77 has recently been published by the Fogarty International Center.

The author, Dr. Gordon H. Hatcher, is a former visiting research professor, FIC, a native Canadian with experience in health administration, and a teacher in both Canada and the U.S.

In researching the information for the 271-page book, Dr. Hatcher interviewed more than 100 health insurance administrators and physicians representing medical societies and licensing persons in eight Canadian provinces.

Single copies of the book are available at the FIC Publications Office, Bldg. 38A, Rm. 609, or by calling 496-4627. Multiple copies may be obtained from the Superintendent of Documents. □

R&W Sponsors Canoe Trips

R&W will sponsor a weekend canoe and camping trip on the upper Potomac River (near Hancock, Md.) on May 29-31 and June 26-28.

The Lazy River Canoe Company will provide river gear, tents, and camping equipment. Meals are included and no previous canoeing experience is necessary.

The price is \$75 per person. Space is limited to 10 persons per trip. □



Scientific research findings are explained by a student-investigator at the MBS symposium. Over 270 papers and 200 posters were presented on a variety of disciplines. The majority of these presentations were made by faculty and student researchers from MBS grantee institutions.

Dr. John F. Goggins Named Dental Deputy Director

Dr. John F. Goggins has been named deputy director, National Institute of Dental Research. In this position, Dr. Goggins will share responsibility with NIDR Director Dr. David B. Scott in establishing and carrying out Institute programs. In addition, Dr. Goggins will continue to serve in his present position as associate director for collaborative research.



Dr. Goggins' professional memberships include the International and American Associations for Dental Research, the American Dental Association, the American Association for the Advancement of Science, and the Histochemical Society.

In 1965 Dr. Goggins joined the Dental Institute, and over the next 8 years engaged in research on the chemistry of connective tissues, bones, and teeth, resulting in the publication of approximately 30 papers and abstracts.

He later joined the Institute's extramural programs as chief of the Periodontal and Soft Tissue Diseases program, encompassing both research and training activities. Dr. Goggins remained in that position until 1974 when he became an associate director.

Receiving his pre-dental training at the University of Notre Dame, and the D.D.S. degree at Marquette University in 1958, he practiced dentistry until 1963 when he returned to Marquette for graduate training in pathology. □

'Stop Smoking' Program Starts May 27 for 5-Week Session

The next "stop smoking" program will be held on five consecutive Wednesdays starting May 27. Sponsored by the Employee Assistance Program of the Occupational Medical Service, the group will be provided a plan for stopping smoking gradually, and also support for those who wish to stop "cold turkey."

Sessions will be held in Bldg. 31, Rm. B2B-35 from 12:30 to 1:30 p.m. The group is limited to 20 persons. To register, contact Morris Schapiro, 496-3164. □

Former NCI Burkitt's Disease Researcher Dies in Georgia

Ida Virginia Perkins, former microbiologist and administrator for NCI's Burkitt's tumor project in Accra, Ghana, died recently in Dalton, Ga., at the age of 60.

Ms. Perkins worked on the project from 1966 until her retirement in 1976. While in Ghana, she coordinated research, recruited patients and organized supplies for the study.

"As the prime coordinator in the first months of the project, she was responsible for its successful start and initiated many of its ongoing efforts," said Dr. Paul Levine, chief of the NCI clinical study section.

Burkitt's lymphoma is a form of cancer seen in children between the ages of 2 and 14. It is rare in the United States, but is found more often in Central Africa. Epstein-Barr virus and malaria are two factors suspected of playing a role in the development of Burkitt's lymphoma.

The project was developed to assist U.S. investigators in their efforts to define the role of EBV in the disease. As part of this effort, the NCI helped Ghana in its search among rural children for Burkitt's lymphoma. Once the children were identified, scientists brought them to Accra where they were treated with NCI-supplied anticancer drugs.

Worked in Africa, S. America

Prior to her work on the Burkitt's tumor project, Ms. Perkins headed the microbiology section at the West African Research Laboratory of the National Cancer Institute-National Institutes of Health and Medical Research (Ghana) Joint Research Program, in Accra, Ghana.

Under this program, NCI investigators studied cancer and other diseases of interest to both countries, including schistosomiasis, liver disease, maternal and child health, filariasis, malaria, tuberculosis and leptospirosis.

During her 36 years in public health, Ms. Perkins aided the Honduras Ministry of Health in establishing a central public health laboratory, spent a 6-year assignment in El Salvador modernizing public health laboratory services throughout the country, worked as a serologist for a venereal disease control program in Paraguay, and as a bacteriologist and technician for the State of Georgia.

A native of Howard, Ga., she received her bachelor of arts degree from the La Grange College in La Grange, Ga. She earned her M.S. degree in microbiology at the Harvard School of Public Health in 1950. □

Just before Easter, Mrs. Doris Stanley, a computer systems analyst in the Office of Planning and Evaluation Branch, NICHD, received a "bouquet of balloons" from her son, Reggie, who is a professional figure skating instructor and winner of the National Novice Figure Skating Championship in 1975. "He didn't send it for any particular reason—other than to just say 'Hi Mom'." Fellow workers wondered how Mrs. Stanley was able to drive her car home after work with her buoyant bouquet.

Cystic Fibrosis Staff Honored By Area Foundation Chapter

The NIH Cystic Fibrosis Center staff was recently honored for outstanding health care by the Metropolitan Washington, D.C. Chapter of the Cystic Fibrosis Foundation.

Dr. Paul di Sant'Agnese, chief of the Pediatric Metabolism Branch, NIAMDD, accepted the award on behalf of both past and present members of the CF health care team at the Clinical Center. The award was the first of its kind presented by the local foundation in recognition of service to patients and parents.

In accepting the plaque, Dr. di Sant'Agnese cited in particular the significant contributions of head nurse Joyce Harris and physical therapy chief Lamont Smith for the quality of care provided by the CF center. □

USDA Summer Schedule Of Classes Is Available

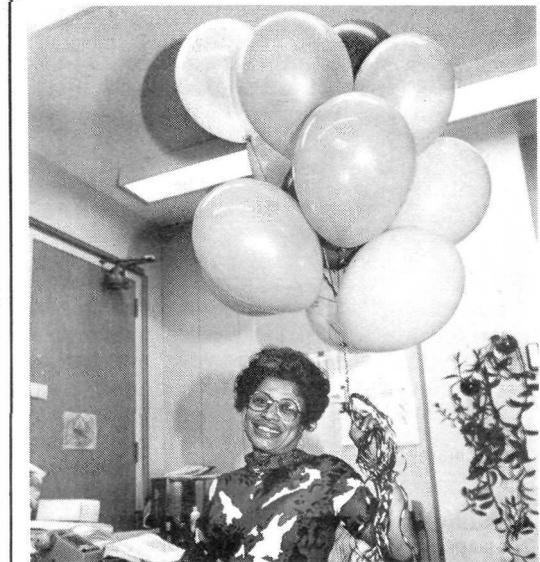
Hundreds of daytime, evening, and correspondence courses are listed in the Summer Schedule of Classes of the Graduate School, U.S. Department of Agriculture, and are open to interested persons who want to improve their job skills or pursue new interests. For a copy, call 447-4419.

Variety of Subjects Offered

Courses include: writing for fun, community gardening, financial planning, stress management, sailing, career planning and job hunting workshop and many others.

The Graduate School also offers courses in administration and management, communication, computer science, field studies and horticulture, financial management and accounting, fine and applied arts, foreign languages, journalism, law and paralegal studies, library technology, mathematics and statistics, personnel administration, photography, procurement and property management, sciences and engineering, and secretarial studies.

In-person registration begins June 15-22 at the North Administration Bldg. patio of the Department of Agriculture at 14th and Independence Ave., S.W., Washington, D.C. □



Dr. Prewitt Honored for Computer Contributions to Medicine

Dr. Judith M. S. Prewitt, research mathematician in the Office of the Director, Division of Computer Research and Technology, has been elected a fellow of the Institute of Electrical and Electronics Engineers.

She received the award for her "unique and outstanding contribution to applying image processing techniques to automated medical diagnostics."

Its board of directors elects fellows on the basis of individual achievement regardless of any candidate's specialty. The fellow designation is one of "unusual professional distinction, conferred upon a person of outstanding and extraordinary qualifications and experience in the fields of electrical engineering, allied branches of engineering, or the related arts and sciences."

Dr. Prewitt's research spans several aspects of algorithmic medical decision-making, most notably image processing and pattern analysis in automated microscopy.

Developed Computer Application

Her pioneering research in cell classification and counting by computer laid the foundations of automated hematology and cytology, and has led to automating the frequently performed clinical laboratory test: the white blood cell differential count.

The same approach is applied to other cytology problems such as Pap smear screening and the cytologic diagnosis of cancer.

May 12 Proclaimed 'Nurses Day' in Maryland

May 12 has been declared Nurses' Day for the State of Maryland by a proclamation from Governor Harry Hughes in Annapolis on May 5. Montgomery County Executive Charles W. Gilchrist officiated at a similar ceremony in the County Office Building in Rockville declaring the observance for the county.

The bill proposing the observation was prompted by Montgomery County chapter of the Maryland Nurses' Association (the state unit of the American Nurses' Association). Susan Simmons, a clinical nurse expert at the Clinical Center, along with other NIH nurses Sharon Doyle, Jill Mangan and Mary Heintzelman, were active in the bill's passage.

CC Nurses' Idea

This year's Nurses' Day theme, Care Along With Us, was suggested by Ms. Simmons and her committee to draw attention to nurses and the variety of services they provide to the public.

Last October, Susan Simmons received from the CC Nursing Department the Distinguished Nurse Award for "contributions to the practice of nursing in the Clinical Center and in the health care community."

In addition, D.C. Mayor Marion Barry has proclaimed that May 5 be Nurses' Day in the District of Columbia. □

DRINKING IS FINE, GETTING DRUNK IS NOT. CALL 496-3164

Besides this work, Dr. Prewitt has been concentrating on more complex systems for image analysis with unusual computational aspects. These include diagnostic systems for histologic (tissue) patterns, particularly those of muscle and epithelium. These analyses require the tremendous speed and memory capacity of new special parallel computers and programming languages.

Current Research Area

Currently, she is collaborating on the computed tomographic reconstruction of an entire human chromosome from electron-micrograph projections.

Dr. Prewitt has served at NIH on three NCI national advisory committees: automated cytology, diagnostic radiology, and diagnostic research, and was project officer, consultant, and NCI representative for many medical imaging and image processing research programs.

She is an officer of several scientific societies and an editorial board member of four professional journals.

Dr. Prewitt has been a national visiting lecturer of the Society for Industrial and Applied Mathematics for 4 years, and its representative to the mathematics and statistics sections of the American Association for the Advancement of Science. She has just been appointed first chairman of the new IEEE computer society technical committee on computational medicine.



Dr. Prewitt was honored at ceremonies in Washington and New York last month, and will be honored again in Dallas on Aug. 4.

Dr. Prewitt came to NIH in 1971 from the University of Pennsylvania, where she had been a faculty member of the departments of radiology and mathematics.

A graduate of Swarthmore College, she holds a master's degree in mathematics from the University of Pennsylvania and a doctoral degree in computer science, and applied mathematics from Uppsala University, Sweden. □

Cruise Slides Featured at Sailing Club Meeting

The next meeting of the NIH Sailing Association will be held on Thursday, May 28, at 8 p.m., in Bldg. 30, Rm. 117.

The program will feature slides and commentary by nine sailing club members who

recently returned from a cruise with Commodore Greg Koski, in the Windward Islands of the Caribbean.

Refreshments will be served and everyone is welcome. □

R&W Plans Picnic in June For Employees

R&W is sponsoring an annual picnic on Sunday, June 7, at Pinecliff (35 minutes from NIH) located in Frederick, Md. Many events are being planned. Tickets and directions are available at all R&W stores or the Activities Desk, Bldg. 31, Rm. 1A-18. □

The American patient waits, on the average, 7 days for a doctor's appointment, spends about 30 minutes sitting in the physician's outer office, and is billed \$21.29 for the visit, according to preliminary findings of a National Center for Health Services Research study on the costs and delivery of health care in the United States in 1977. □



Staffers at the Clinical Center's Media and Glassware Section were presented with Special Achievement Awards last month by Dr. W. Emmett Barkley, (third from l), Division of Safety director. The awards were for "continuing to perform their duties in an outstanding manner in spite of having to endure daily adverse environmental conditions due to renovations at Bldg. 10."

LAETRILE

(Continued from Page 1)

The Laetrile study included cancer patients for whom no other treatment had been effective, or for whom no proven treatment existed. All patients had tumor masses that could be regularly measured for growth or shrinkage by X-ray or other types of examination.

Laetrile was given to patients with a broad spectrum of tumors including the most common types of cancer, such as lung, breast, and colorectal.

The great majority of the 178 patients entering the Laetrile study were in good general condition. Seventy percent were able to work full- or part-time. None were totally disabled. Thirty-four percent had not received any previous chemotherapy. Median age of the patients was 57. One hundred men and 78 women were enrolled.

Treatment design for the Laetrile trial was patterned after current Laetrile usage—based on the writings of some Laetrile practitioners and on direct consultation with several others. Laetrile was given for 21 days by intravenous injection at an average daily dose of 8 to 9 grams and then continued by mouth at a dose of 0.5 grams three times daily. Treatment was stopped if a patient showed progressive disease.

In addition, patients were treated with a so-called "metabolic therapy" program. The diet emphasized fresh fruits and vegetables and whole grains. It was severely restricted in meat, animal products, refined flour, refined sugar, and alcohol. Patients also received pancreatic enzymes and large doses of vitamins A, C, and E, as well as vitamin B complex and minerals.

During the study, patients were carefully monitored for side effects, especially for signs of cyanide toxicity. Levels of cyanide in the blood showed consistent elevations with the oral treatment. Usually these were within safe limits but occasionally were dangerously high. In one patient, treatment was discontinued for this reason.

Dr. Moertel stated in his presentation that some Laetrile practitioners employ larger oral doses of amygdalin than that in these studies. Such practices, carried on outside a carefully monitored research study, must be considered extremely hazardous and carry a risk of producing fatal drug reaction.

Data based on the core group of 156 patients indicate the following:

- Within 1 month of beginning Laetrile treatment, 50 percent of the patients showed evidence of disease progression, and 90 percent had progressed within 3 months.

- Fifty percent of the patients died within 5 months, and only 20 percent were alive by 8 months. (The survival experience would be consistent with that expected if patients had received no treatment.)

- Only one patient showed a partial reduction in tumor size. This persisted for only 10 weeks. Thereafter, the tumor progressed although the patient continued on Laetrile therapy. The remaining patients failed to improve. (Researchers generally expect to see a tumor regression rate from 0 to 5 percent in studies of inactive drugs. In this study, the regression rate represented less than 1 percent of patients.)

- From the standpoint of general benefits, 6 percent of the patients showed weight gain at some time during the study. Only 3 percent of the patients were still on therapy and maintaining weight gain at 10 weeks.

- In performance scores (a measure of patients' ability to be physically active), only 6 percent of the patients ever showed improvement, and only 3 percent of the patients were still on therapy and maintaining this improvement at 10 weeks.

Among the 140 patients who had symptoms from their disease before Laetrile therapy, 19 percent claimed improvement in how they felt at some time during the study; at 10 weeks, only 5 percent of the patients were still on therapy and claiming improvement in symptoms. This degree of symptomatic benefit is within the range of that anticipated with placebo (inactive medication) treatment. □

Visiting Scientist Program Participants

Sponsored by Fogarty Internat'l Center

4/10—**Dr. Christoph Kempf**, Switzerland, Laboratory of Mathematical Biology. Sponsor: Dr. John Weinstein, NCI, Bg. 10, Rm. 4B54.

4/13—**Dr. Atsunori Kashiwagi**, Japan, Phoenix Clinical Research Section. Sponsor: Dr. Lester B. Salans, NIAMDD, Bg. 31, Rm. 9A16.

4/15—**Dr. Susanta Sarkar**, India, Laboratory of Biochemistry. Sponsor: Dr. Dennis Torchia, NIDR, Bg. 30, Rm. 221.

4/16—**Dr. Maria Torrissi**, Italy, Laboratory of Pathophysiology. Sponsor: Dr. Pedro Pinto da Silva, NCI, Bg. 10, Rm. 5B47.

4/19—**Dr. John A. Sachs**, United Kingdom, Laboratory of Immunogenetics. Sponsor: Dr. Thomas J. Kindt, NIAID, Bg. 8, Rm. 100.

4/20—**Dr. Nageswararao Chilukuri**, India, Laboratory of Pathophysiology. Sponsor: Dr. Lance A. Liotta, NCI, Bg. 10, Rm. 8B19.

4/20—**Dr. Tea Kalebic**, Yugoslavia, Laboratory of Pathophysiology. Sponsor: Dr. Lance A. Liotta, NCI, Bg. 10, Rm. 8B19.

4/20—**Dr. Yang-Ja Lee**, Korea, Laboratory of Microbiology and Immunology. Sponsor: Dr. Bruce M. Chassy, NIDR, Bg. 30, Rm. 532.

4/22—**Dr. Marco A. C. Benedito**, Brazil, Biological Psychiatry Branch. Sponsor: Dr. Marian S. Kafka, NIMH, Bg. 10, Rm. 2N315.

4/24—**Dr. Mario Altieri**, Italy, Developmental Pharmacology Branch. Sponsor: Dr. Masahiko Negishi, NICHD, Bg. 10, Rm. 5B10.

4/27—**Dr. Mohamed Badr Ashour**, Egypt, Gerontology Research Center. Sponsor: Dr. Richard G. Hansford, NIA, Baltimore, Md.

Chemical Carcinogen Guidelines Issued by Division of Safety

The booklet, *NIH Guidelines for the Laboratory Use of Chemical Carcinogens*, is now available to scientists conducting work that involves chemical carcinogens.

The *Guidelines* provide guidance to researchers in their selection and use of safeguards that will allow full usage of chemical carcinogens at the same time minimizing exposures to NIH personnel. They represent the culmination of an extensive development and review process involving members of the intramural research community, as well as the Laboratory Chemical Carcinogen Safety Standards Committee of the HHS Committee to Coordinate Environmental and Related Programs.

The booklet will be distributed to all B/ID's, directors, executive, administrative and information officers and chiefs of branches, laboratories and sections. A roster of individual users of chemical carcinogens will then be forwarded to the safety and health consultants within the Division of Safety to ensure distribution to appropriate personnel.

A single free copy of the *Guidelines* may be obtained from the Division of Safety, Bldg. 13, Rm. 2E-43, 496-1985, and the Office of Cancer Communications, NCI, Bldg. 31, Rm. 10A-18, 496-5583. Multiple copies may be secured from the Superintendent of Documents, Government Printing Office, Washington, D.C. 20401, GPO Stock No. 017-040-00482-6; (202) 783-3238. □



A delegation of Chinese science journalists visited NIH recently as part of a 20-day U.S. tour. Their visit was in response to a September 1979 visit to China by the National Association of Science Writers. Twelve of the writers were traveling from the People's Republic of China, and two are residents of New York City. The group met with Storm Whaley (c-rear), NIH Associate Director for Communications, OD, to discuss "science popularization," or how NIH disseminates research findings to the general public. The group also met with Dr. Choh-Luh Li, (r-rear) associate neurosurgeon, NINCDs, and Dr. Hsiang-Ting Chang, who has been an FIC scholar-in-residence since January of this year. Sitting to the left of Mr. Whaley is the delegation's leader, Ye Zhishan, vice president of the Chinese Association of Popular Science Writers, and also deputy director of the Chinese Children's Press.

Dr. Stuart W. Lippincott Dies; Original NCI Pathologist



Dr. Stuart W. Lippincott

Dr. Stuart W. Lippincott, one of the original National Cancer Institute pathologists, died recently at the home of his daughter in South Jordan, Utah.

Dr. Lippincott, a native of Worcester, Mass., joined NCI in 1940 as a research fellow, becoming one of the first four pathologists on the staff. In 1942, he accepted a commission as captain, Medical Corps, U.S. Army, and in 1946, ranked at lieutenant colonel, was awarded the Army Commendation Ribbon for research in tropical diseases.

As a pathologist with NCI, he studied the effects of partial inanition, and diets deficient in certain constituents pertaining to the time of appearance and progression of spontaneous and induced tumors in mice. He also used some of these results to precisely delineate specific damage to nerve

structures caused by deficiencies in pantothenic acid.

Dr. Lippincott described cutaneous tumors induced by ultraviolet radiation and the absence of hypervitaminosis D in exposed mice. He also debunked a popular theory of that time, maintained by a prominent foreign cancer investigator, to the effect that feeding heated lard to rats induced gastric carcinoma. Reports of Dr. Lippincott's experiments are published in the early volumes of the *Journal of the National Cancer Institute*.

For the remainder of his professional career, he contributed significantly to cancer research, particularly those cancers due to physical agents. He also held many medical education teaching positions and worked as a consulting pathologist to the Surgeons General of the U.S. Public Health Service, Army and Navy.

At the time of his retirement in July 1974 as professor of radiology and chairman, division of radiobiology, Virginia Commonwealth University, Dr. Lippincott was studying quantitative calibrations of X-rays in relation to skin damage and skin cancer in the domestic pig.

He received his A.B. degree from Clark University, and his M.D. and C.M. in pathology from McGill University. He was board certified in pathologic anatomy, and served for 10 years on the editorial board of the *AMA Archives of Pathology*. He was a member of numerous societies and committees, on pathology, radiation research, nuclear medicine and animal care.

Dr. Lippincott is survived by his wife, Jean, a daughter, Mrs. James Anderson, and three granddaughters all of South Jordan, Utah. □

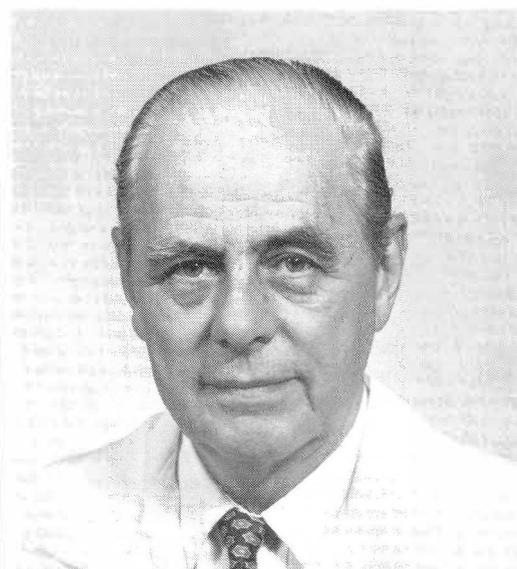
Chinese Proverb:

No man is a good doctor who has never been sick himself. □



NLM computer operator George Martin (foreground) loads a program into the newly acquired IBM 370/168 multiprocessor system, located in the Lister Hill Center. The new MEDLARS computers, obtained from the Division of Computer Research and Technology, increase the NLM's computer capacity nearly threefold—enough to meet the estimated 20 to 25 percent annual growth of the Library's data processing requirements through 1984.

DR. ASHWELL



Dr. Ashwell joined NIAMDD's radiation biology section in 1950. Since 1955 he has worked in the Laboratory of Biochemistry, where he is now serving as chief.

(Continued from Page 1)

acid, determines the ability of the protein to survive in the bloodstream. As soon as the glycoprotein lost a small number of sialic acid residues, the protein was cleared from the circulation and degraded in the liver.

Dr. Ashwell and his colleagues then isolated and characterized a membrane receptor on liver cells responsible for clearance of the sialic acid-less protein. This research has facilitated the examination of the detailed mechanism of cellular endocytosis and has been an important contribution to knowledge about the general structure and function of all cell receptors.

In addition to his research interest in the physiological role of sugars in recognition phenomena, Dr. Ashwell has studied various aspects of carbohydrate biochemistry, including the isolation of a key intermediate in the pentose phosphate cycle, the isolation and metabolism of amino sugars, and the enzymology of the biosynthetic routes leading to the synthesis of ascorbic and uronic acids.

Before joining the NIH, Dr. Ashwell worked in private industry, where he established pilot plant methods for producing several antibiotics, including the first penicillin for clinical use in the United States.

He earned B.S. and M.S. degrees in chemistry at the University of Illinois, and the M.D. degree at Columbia University.

Dr. Ashwell is a member of the National Academy of Sciences. □

Tilghman Is. Fishing Trip Planned

An overnight charter fishing trip to Tilghman Island is being planned for Friday evening, June 19.

The \$80 per-person ticket includes a room, tackle, and meals (a fisherman's breakfast at 6 a.m. before departing from the dock at 7 a.m.; a box lunch at noon; and a seafood dinner). Sign up now at the Activities Desk, Bldg. 31, Rm. 1A-18. □

Drs. G. Khoury, M. Brownstein Receive 1981 Arthur S. Flemming Award

The Arthur S. Flemming Award, a most prestigious honor given to 10 young U.S. Government employees annually for significant contributions to their field, has been awarded to Drs. George Khoury, acting chief, Laboratory of Molecular Virology, Division of Cancer Cause and Prevention, NCI, and Michael Brownstein, a researcher with the pharmacology section, Laboratory of Clinical Science, NIMH.

Dr. Khoury, 37, was recognized for his "scientific insight, originality, and excellence in research on the molecular mechanisms which underlie the induction of cancer by DNA tumor viruses; for pioneering discoveries of the ways in which cells copy and process genetic information; for studies on the use of viruses to package biologically important cellular genes and to transfer them to eukaryotic cells; and for achievements in helping to attain the goals of the National Cancer Program."

Dr. Khoury's research interests focus on the mechanisms of transformation by tumor

oxytocin—are synthesized in the brain, transported to the posterior pituitary, and released into the bloodstream.

"It's rare that one works in isolation anymore, and my colleagues should share any credit that I receive," said Dr. Brownstein. In particular, he mentioned Drs. James Russell and Harold Gainer, Laboratory of Developmental Neurobiology, National Institute of Child Health and Human Development, who collaborated on the vasopressin and oxytocin studies.

Dr. Brownstein also cited Dr. Micklos Palkovits, a visiting scientist from Hungary, "who taught me neuroanatomy and a method of microdissection that permits study of discrete groups of cell bodies, and Dr. Julius Axelrod, chief, pharmacology section, my mentor.

"We and scientists in other laboratories have found that some peptides, thought to be confined to one part of the brain, are in fact distributed throughout the brain and even found in the periphery, that is, the rest of the body. Now it is generally acknowledged that these biologically active peptides probably have many roles in the brain and the body," he said.

Dr. Brownstein received both his Ph.D. in biochemical pharmacology and an M.D. from the University of Chicago. He completed a pediatric internship at Children's Hospital in Boston and studied electrophysiology with Dr. David Brown in London.

He came to NIMH in 1972 to work with Dr. Axelrod and has remained there ever since. "One of the nice things about working on the NIH campus is the opportunity to collaborate with scientists who share scientific interests and offer complementary expertise."

The Flemming Award was established in 1948 by the Washington, D.C. chapter of the Junior Chamber of Commerce. It aims to encourage high standards of personal performance, attract capable young people to government service, and promote confidence in our form of government and the opportunities it presents.

Drs. Thomas M. Buchanan and Alan Mark Steinman of the Health Services Administration, HHS, were also recipients of the annual award for outstanding government service. □

Conference Room Renamed After Arthur H. Norris

The NIA Gerontology Research Center's conference has been renamed the Arthur H. Norris Room by GRC Director, Dr. Richard C. Greulich.

Mr. Norris, who died last year, was the former chief of the GRC's Human Performance Section. He had worked 33 years at the GRC, serving as investigator, administrator, and mentor to many young scientists.

His work focused on exercise physiology and body composition changes with aging. He was largely responsible for the growth and success of the NIA's Baltimore Longitudinal Study of Aging. □



Dr. Khoury

Dr. Brownstein

viruses; the regulation of transcription; and cell permissiveness and host range. He received his undergraduate degree from Princeton University, his M.D. from Harvard Medical School in 1970, and after graduation, interned in general medicine at Massachusetts General Hospital.

In 1971, he joined the National Institute of Allergy and Infectious Diseases as a research associate in the Laboratory of Biology of Viruses, and later joined NCI in 1976 as head of the Virus Tumor Biology Section, Laboratory of DNA Tumor Virus, Viral Oncology Program DCCP, NCI. In 1977, he was selected Outstanding Young Maryland Scientist.

Dr. Khoury is the author or coauthor of over 75 scientific papers in the field. Currently, he is engaged in studies on the regulation of cellular and viral gene expression.

Dr. Brownstein, 38, has researched peptides, or amino acid compounds, which are involved in the brains' regulation of the anterior pituitary. This master gland, in turn, regulates the thyroid, the adrenals, and the gonads, Dr. Brownstein said. "There's a hierarchy from brain to pituitary to peripheral organs and feedback loops at all levels to tell the brain and the pituitary what's happening downstream."

Dr. Brownstein has researched peptidergic pathways in the central nervous system and has been involved in clarifying the mechanisms whereby two posterior pituitary hormones—vasopressin and

Ultrasonic Imaging Symposium To Be Held May 31–June 3

The Sixth International Symposium on Ultrasonic Imaging and Tissue Characterization will be held Sunday, May 31, through Wednesday, June 3. Cosponsored by the National Bureau of Standards and the Diagnostic Radiology Department of the Clinical Center, the meeting will be at the Bethesda Holiday Inn and at the NBS Administration Bldg. in Gaithersburg, Md.

A discussion forum on the current state of the art, new directions of technology, and research opportunities in ultrasonic imaging and characterization of tissues will be featured. Physicians, engineers, physical scientists and mathematicians will be participating.

Topics include current research in microscopy, imaging techniques, computerized tomography, Doppler techniques, measurement techniques for ultrasonic properties of tissue, and tissue phantoms.

For more information, call Kathy Stang, 921-3295, or Dr. Melvin Linzer, 921-2611, for technical information. □

New Cerebral Palsy Pamphlet Offered by Neurology Series

The latest information on the possible causes, symptoms, and treatments of cerebral palsy is available in a new pamphlet for both physicians and interested consumers.

Prepared by the National Institute of Neurological and Communicative Disorders and Stroke, the pamphlet is the most recent in the Institute's "Hope Through Research" series, and covers promising areas in prevention, rehabilitation, and research.

Illustrated with photographs and drawings, the publication will be of interest to neurologists, pediatricians, and other health care professionals; medical schools, libraries, voluntary health agencies; and cerebral palsy patients and their families.

Copies of the new pamphlet, *Cerebral Palsy—Hope Through Research* may be obtained from the NINCDS Office of Scientific and Health Reports, Bldg. 31, Rm. 8A-06; or by calling 496-5751. □

BONDS

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chairman, and John Robertson, DRG personnel management specialist, is the coordinator.

A training meeting for B/I/D coordinators and canvassers is scheduled for May 12 to begin at 2 p.m. in the Masur Auditorium. Dr. Donald S. Fredrickson, NIH Director, will open the meeting to be followed by procedural instructions from various U.S. bonds officials, and an amusing film will be shown starring members of TV's "WKRP" show.

U.S. bonds are an easy way to save. B/I/D canvassers will be in contact with NIH employees to distribute material on the new EE bonds and to answer all questions. For more information, call John Robertson, 496-7522. □

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