

# The NIH Record

## NIH Gaining Expertise

### **Marrow Transplant Renaissance Crosses Institute, Campus Boundaries**

By Rich McManus

Now that bone marrow transplantation (BMT) is enjoying a resurgence in medicine, more institutes at NIH are finding ways to push its therapeutic boundaries even further. At least a half dozen BMT initiatives, most only loosely related, are currently under way at NIH.

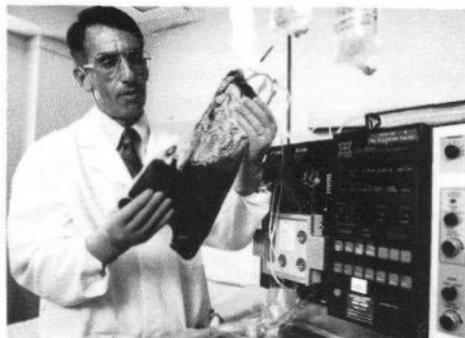
On campus, the Clinical Center's department of transfusion medicine has become a

*Second of two-part series*

leader in automated cell processing and collaborates with NCI and Children's Hospital in marrow processing. Experts in NCI's Experimental Immunology Branch and Medicine Branch, and in NIAID's Allergy, Immunology, and Transplantation Program are finding novel ways of making BMT more widely applicable. And the NIH scientific directors are thinking of locating a BMT unit here.

Off campus, an extramural arm of NHLBI is managing a national registry of potential donors; the NIH Plateletpheresis Center, a member of the registry, is a national leader in supplying donor candidates.

No matter where they are accomplished, however, there are only two categories of bone marrow transplantation. The last issue of the



*Dr. Harvey G. Klein, chief of the Clinical Center's department of transfusion medicine, has helped the institutes and hospital gain expertise in the technology of bone marrow transplantation.*

*Record* focused on the kind that occurs between two people—allogeneic (nonself) BMT. The second variety is called autologous (self-donated) BMT, in which the donor and recipient are the same person. NIH hasn't been involved in allogeneic BMT since a fledgling program petered out in the early 1970's. Autologous BMT, on the other hand, has never been surrendered as a weapon in the anticancer arsenal.

Autologous BMT allows oncologists to give

patients doses of chemotherapy that would kill them were they not capable of being rescued by their own cryopreserved (frozen) marrow. Because this marrow comes from the patient's own body, there is no worry about tissue matching, graft rejection or graft-vs.-host disease.

"We've had an autologous BMT program in the Medicine Branch and the Pediatric Branch for about the last 12 years," reports Dr. Wyndham Wilson, who is currently conducting two phase I studies involving BMT for NCI's Medicine Branch.

Wilson's team is applying BMT in combination with sophisticated anticancer drugs to relapsed cancer patients whose disease has been resistant to traditional chemotherapy.

The first study, employing a drug regimen dubbed "VIC," is directed at patients with Hodgkin's lymphoma.

"In the absence of marrow transplantation, these patients have a cure rate of only 5 percent," he said. "We're trying new drugs that are less toxic to organs such as the heart, kidney, lungs and liver." Poisoned organs are a major complication of high-dose chemotherapy.

Ten patients have undergone BMT in the  
**(See BONE MARROW, Page 6)**

## Remember to Ask for Your Cholesterol Number

### **National Cholesterol Education Month Celebrated at NIH**

Do you know your cholesterol number? Do you know if it is too high? September 1989 has been designated as the first annual National Cholesterol Education Month by the National Cholesterol Education Program, coordinated by NHLBI. A number of activities to commemorate the month are planned for NIH employees by the institute and the Occupational Medical Service (OMS) in cooperation with R&W, and Guest Services Inc. (GSI) cafeterias.

In order to help employees know their cholesterol number, OMS will conduct cholesterol screenings at a variety of locations and times throughout the month (see schedule). The cost for the laboratory procedure is \$3.75. All R&W gift shops will provide the laboratory slips that must be obtained in advance.

Employees may come to any of the screening sites and have their blood drawn on a first come, first served basis. At the screenings, a general NHLBI information fact sheet will be provided to all participants while detailed

NHLBI brochures *Eating to Lower Your High Blood Cholesterol* and *So You Have High Blood Cholesterol* will be provided to individuals whose cholesterol readings are elevated.

High blood cholesterol plays an important role in causing heart disease, but people can take steps to lower it. Adopting an eating pattern that focuses on reducing saturated fat, total fat and dietary cholesterol intakes is the cornerstone of the treatment plan.

To help employees enjoy more heart healthy meal options at lunch, GSI is bringing back to its five cafeterias the 11 recipes of NHLBI's Sray Young at Heart program, first initiated in September 1987. These recipes provide menu options that are lower in fat, saturated fat, cholesterol and sodium. One or more specials will be featured each day. Their corresponding recipe cards will be available for employees to know the composition and nutrient content of the food, and even try the recipe at home.

**(See CHOLESTEROL, Page 2)**

## Researchers Reap Rewards

### **NIH Tops Federal Royalty Chart**

By Carla Garnett

Efforts to share the fruits of federal research, through licensing agreements, with the rest of the research and development industry continue to be mutually successful—especially for NIH. Almost 150 NIH inventions are currently licensed to independent companies. NIH leads all federal agencies in the amount of royalties collected from licensing agreements on inventions by government researchers.

"NIH is the king of the hill," proclaims a July 1989 issue of *The Scientist*, which reported royalty figures compiled over a 2-year period by the General Accounting Office.

Of the \$4.6 million in royalties earned in 1986 and 1987 by federal agencies, NIH received \$3.9 million—more than 80 percent of the total. Distant runners-up were the Agricultural Research Service with \$213,000 and NASA with \$181,000.

**(See ROYALTIES, Page 2)**

## ROYALTIES

(Continued from Page 1)

The figures were compiled as part of a GAO report to Congress on how federal agencies benefit from the Federal Technology Transfer Act (FTTA), a law passed in 1986 that allows government agencies and scientists to collect royalties from their commercially useful research. GAO notes, however, that the NIH figures cited in the report were accrued on inventions made before the FTFA.

NCI's royalty income largely dominates that of other NIH institutes, having collected more than \$1.7 million of the \$1.9 million total available in fiscal years 1989 and 1990.

NIAID and the Clinical Center collected the next highest incomes, approximately \$70,000 and \$40,000, respectively.

The serological test to detect HTLV-III antibodies, developed by Dr. Robert Gallo and colleagues, is by far the most profitable project ever and accounts for most of NCI's royalty total, according to the National Technical Information Service (NTIS), which collects royalty funds for the NIH.

Total income may include a one-time execution fee, annual maintenance fees and royalties based on sales. These fees are collected by the NTIS, which is paid a percentage for its licensing and foreign patenting services to the NIH.

Other income-producing NIH patents, according to a report titled "1988 income on selected HHS inventions," include Mab's (Monoclonal Antibodies) Against Human Pneumocystis Carinii, discovered by the Clinical Center's Dr. Henry Masur; Recombinant rDNA Process Utilizing a Papilloma Virus, discovered by NCI's Dr. Peter Howley and NIAID's Dr. Nava Sarver; and the Fiber Optic PO2 Probe, discovered by DRS' Dr. John I. Peterson and colleagues.

According to policies developed by the NIH Patent Policy Board as a result of the FTFA, a researcher can earn 25 percent on the first \$50,000 of income from a patented invention; 20 percent on the next \$50,000; and 15 percent on royalty income beyond \$100,000.

A federal researcher's income from all patents cannot exceed \$100,000 in a given year, except with approval by the president.

The balance of royalties after payment of NTIS costs and inventor awards is distributed to the BID of the inventor.

BIDs have specific guidelines for the use of royalties. For example, royalties may be used by the BID to award a noninventor who contributed directly to the invention or to the award of the patent. Royalties may also be used for education or training of employees consistent with the research and development objectives of the agency.

More than 100 NIH patent applications were filed with the U.S. Patent and Trademark Office in 1988; this year the number of applications is expected to double. DHHS continues its policy of offering incentives to file patents. Each scientist listed on a patent application is given \$100. If the patent is approved, an additional \$300 is given to each inventor. □

## CHOLESTEROL

(Continued from Page 1)

September is the time to get your cholesterol level checked and begin to enjoy the heart healthy menu options in the cafeterias. Join the National Cholesterol Education Program in the fight against the number one killer of Americans—heart disease.

Date	Hours	Bldg./Rm.
Sept. 5	8 — 11 a.m.	10, 6C306
Sept. 12	8 — 11 a.m.	10, 6C306
Sept. 12	1 — 3 p.m.	31, B2B57
Sept. 13	2 — 4 p.m.	38A, B1N28G
Sept. 14	7 — 10 p.m.	10, 6C306
Sept. 15	8 — 11 a.m.	10, 6C306
Sept. 19	8 — 11 a.m.	10, 6C306
Sept. 19	1 — 3 p.m.	1, B2W38
Sept. 20	8:30 — 11 a.m.	WW, 11
	12 noon —	
	2 p.m.	WW, 11
Sept. 21	8:30 — 11 a.m.	EPN, 103
	12 noon —	
	2 p.m.	EPN, 103
Sept. 21	7 — 10 p.m.	10, 6C306
Sept. 22	8:30 — 11 a.m.	13, G901
Sept. 26	8 — 11 a.m.	10, 6C306
Sept. 26	8:30 — 11 a.m.	WW, 11
Sept. 26	1 — 3 p.m.	31, B2B57
Sept. 28	1 — 3 p.m.	Fed., 10B08
Oct. 3	1 — 3 p.m.	14A, B22

## Washington Ballet Tickets

R&W has discount tickets to two performances of the internationally acclaimed Washington Ballet's Fall Repertory Series at Lisner Auditorium on Saturday, Oct. 14. Tickets for the evening are discounted to \$23.50 (a \$4 savings); tickets for the 2 p.m. matinee are \$21.50 (a savings of \$3.50). There are no service charges.

Tickets can be purchased at any R&W store. Call 496-4600 for more information. □



*Dr. Faye J. Calhoun has been appointed deputy chief for review in DRG's Referral and Review Branch. She came to the division in 1982, serving as executive secretary of the toxicology study section until 1987, when she became acting chief of the physiological sciences review section, RRB. She received her D.P.A. in policy analysis, research and development administration from the University of Southern California. Before coming to NIH, she worked for NIOSH and FDA.*

# The NIH Record

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## A Stimulating Syllabus

**STEP Announces Its 1989-90 Education Programs**

The staff training in extramural programs (STEP) committee will open its 1989-90 season with a lecture in its popular "Science For All" series. The presentation "Genes and Chromosomes" will be delivered on Sept. 28 in Wilson Hall at 1 p.m. by Dr. Bert Vogelstein, a well-known lecturer on the subject from Johns Hopkins University.

The series is designed to provide an opportunity for the general NIH community to learn about contemporary health and science topics and is open to all NIH staff.

STEP, developed primarily for extramural staff, is entering its 27th season as a continuing education program sponsored by NIH. STEP activities are a function of the Office of Extramural Research under the auspices of the NIH associate director for extramural affairs, Dr. George Galasso, and A. Robert Polcari, director of the extramural staff training office. Arlene Bowles, OER, is the STEP program director.

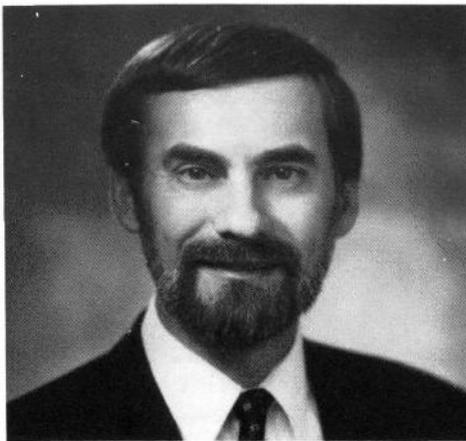
The STEP program is developed each year by a committee of NIH staff members who, along with other NIH volunteers, plan and conduct the training sessions. Dr. Anthony Demsey, associate director for referral and review at DRG, has been reappointed chairman of the STEP committee for 1989-90 following the resignation of Dr. John Zimbrick, who has left NIH for Battelle-Pacific Northwest Laboratories. Dr. David Longfellow of NCI is vice chairman.

This year's STEP modules and forum lectures are designed to provide a wide range of experience for improving job skills as well as for expanding the intellectual horizons of NIH extramural staff not only on current NIH issues but also on those issues affecting biomedical science generally.

Module 1, "Politics and the National Institutes of Health" will focus on the political forces that interact with the branches of government and result in restructuring at NIH through the addition of new institutes, offices and programs. This module will be presented Dec. 13-14.

Module 2, "New Scientists: An Endangered Species?" will explore the serious national problem of the increasing shortfall in the next generation of scientists. Participants will have the opportunity to find ways they might respond to this crisis. This module is scheduled for Jan. 17-18, 1990.

Module 3, "Effective Alliances or A House Divided?" will examine the authorities, roles and responsibilities of the review, grants/contracts management and program components of the NIH extramural community. Through interactive methods and a team building



*Dr. Anthony Demsey, who is DRG's associate director for referral and review, has been appointed to a second term as chairman of the STEP committee. He and colleagues have arranged for a variety of educational forums, lectures and modules in 1989-90.*

approach, this module will help participants increase their effectiveness as members of the NIH extramural team. It will be offered on Mar. 28-29, 1990.

Module 4, "The Right Job/The Right Person" will increase participants' skills in recruitment of high quality staff through effective use of the interview process. This module will take place Apr. 19-20, 1990.

Module 5, "Science in the Crossfire" will focus on the myriad of contemporary forces that impact on the funding and conduct of science and how NIH must deal with these often conflicting forces. This module is scheduled for Apr. 24-25, 1990.

The afternoon STEP Forum series will provide interesting information and enlightening discussion on a number of current issues. Forum sessions are scheduled on AIDS policy, mapping the human genome, conflict of interest and standards of conduct, rebuttals and appeals, and ethical and legal implications of advances in human genetics.

In addition to the opening lecture on genes and chromosomes, the "Science for All" series will deal with topics such as hormones in men and women, and vaccines.

Applications for modules must be submitted on revised form NIH-2245 (3/89). Application forms and brochures are available from BID personnel offices or from Dr. David Longfellow (EPN, Rm. 700), Dr. Colette Freeman (EPS, Rm. 630D), Dr. John Fakunding (Federal, Rm. 3C04), Dr. Anthony Demsey (WW, Rm. 338).

Applications and brochures can also be

obtained from the STEP program office, Bldg. 31, (new address) Rm. 5B44, 496-1493.

The application deadline for the first three modules is Oct. 13, and for the last two, Dec. 15. No applications are needed for the STEP forums or lectures. □

**Self-Injurious Behavior Is Topic Of NIH Consensus Conference**

Of the approximately 6 million people in the United States with developmental disabilities, a small percentage—less than 3 percent—engage in behaviors that are injurious to themselves or to others or that destroy property.

Despite its small number, this segment of the developmentally disabled population is the focus of much debate and controversy. At the center of the controversy is the question of how best to treat these individuals to ameliorate their self-injurious or destructive behavior. The most hotly debated treatments are those involving aversive stimuli such as mild electric shock or restraints. Yet these approaches appear to be the most effective in some cases.

This controversy is the focal point of a consensus development conference, "Treatment of Destructive Behaviors in Persons with Developmental Disabilities," to be held at NIH in Masur Auditorium, Sept. 11-13.

A panel of experts from fields including medicine and the behavioral sciences has been meeting for the past year to review the literature and examine evidence regarding the effectiveness of various treatment approaches. This panel will present its draft report during the first day and a half of the conference, hear presentations from members of the audience, including researchers and parents, and will write a consensus statement.

On the final day of the meeting, the consensus panel chairman, Dr. R. Rodney Howell of the University of Miami, will read the consensus statement and invite comments and questions.

The conference is sponsored by NICHD and the NIH Office of Medical Applications of Research. Cosponsors are NINDS, NIMH and the Bureau of Maternal and Child Health and Resources Development of the Health Resources and Services Administration.

The conference will begin at 8:30 a.m. Monday and Tuesday and 9 a.m. on Wednesday. For more information or to obtain a copy of the draft report or consensus statement, call the NICHD Office of Research Reporting, 496-5133. Nine CME credits are being offered. □

## DCRT Fall Computer Training

The DCRT Computer Training Program has combined both its class schedules and course descriptions into one convenient "Computer Training Courses and Seminars" brochure for the fall semester. The single publication will be published three times a year. A short application is included in the brochure. There is no charge for these courses.

New courses being offered in the fall term include "Managing Data Effectively," "C Topics," and "Signal Processing." Also for the first time, the new brochure includes many short seminars on topics such as Kermit, ENTER MAIL, and BITNET.

Applications may be submitted at any time. Students will be accepted as long as there is space available. Any applicant who is rejected



because a class is filled will be placed on a waiting list and will be notified if space becomes available. At the end of the term, those remaining on the waiting list will be contacted to see if they would like to have their application renewed for the next term without having to reapply. The training unit is offering this new service in response to many requests from students and their supervisors.

Copies of the brochure have been sent to BID personnel offices. Copies are also available from the Technical Information Office, Bldg. 12A, Rm. 1017, 496-5431. Those who use Wylbur can order a copy with the ENTER PUBWARE command.

The DCRT Training Unit, CCB, welcomes suggestions for new course offerings or other ways to improve the DCRT Computer Training Program. If there are suggestions or questions, call the training unit, 496-2339. □

## Atlantic City Trip

Get lucky at the Claridge Casino on Friday, Oct. 20. R&W in conjunction with Adventures Unlimited will escort you there via deluxe motorcoach. Cost for the trip is \$22 and includes a package of \$10 in coin and \$3 in food. Bus will leave NIH Bldg. 31C at 7 a.m. Sign up early at any R&W. □



NIAID director Dr. Anthony S. Fauci (c) welcomes new advisory council members (from l) Dr. Edmund D. Pellegrino, Richard F. Kingham, Dr. C. Glenn Cobbs and Dr. Adel A.F. Mahmoud.

## New NIAID Advisory Council Members Appointed

Four new members were recently appointed to 4-year terms on the National Advisory Allergy and Infectious Diseases Council.

They are: Dr. C. Glenn Cobbs, a professor of medicine at the University of Alabama at Birmingham; Richard F. Kingham, an attorney with Covington and Burling in Washington, D.C.; Dr. Adel A. F. Mahmoud, chairman of the department of medicine at Case Western Reserve University School of Medicine, and Dr. Edmund D. Pellegrino, director of the Kennedy Institute of Ethics at Georgetown University.

An expert in internal medicine and infectious diseases, Cobbs has been affiliated for the past 20 years with the University of Alabama, where he also serves as director of the division of infectious diseases in the department of medicine. He has authored nearly 100 scientific articles and book chapters in his areas of expertise. Since 1978, he has been on the editorial board of *Antimicrobial Agents and Chemotherapy*.

Specializing in federal regulation of food, drugs, and related products, Kingham is a partner at the law firm of Covington and Burling. He was involved in contract negotiations and legislative drafting of the 1976 swine flu immunization program. He participated in a number of proceedings related to federal regulation of vaccines, including the National Childhood Vaccine Injury Act of 1986 and the Vaccine Compensation Amendments of 1987. Kingham was a member of the Institute of Medicine's committee on issues and priorities for new vaccine development and an advisor to the institute's committee on public and private sector relations in vaccine innovation.

Mahmoud, an authority on infectious and parasitic diseases, is also the John H. Hord professor of medicine at Case Western Reserve

University School of Medicine. In addition, he is also physician-in-chief and director of the department of medicine at the University Hospitals of Cleveland. He is a member of more than a dozen American and British scientific and professional societies, including the Institute of Medicine of the National Academy of Sciences and the expert advisory panel on parasitic diseases of the World Health Organization. He is president-elect of the International Society for Infectious Diseases.

Pellegrino is also the John Carroll professor of medicine and medical humanities at Georgetown University Medical Center. From 1978 to 1982, he served as president of Catholic University in Washington, D.C. He also has served as president and chairman of the board of directors at Yale-New Haven Medical Center. In 1986, the State University of New York at Stony Brook established the Edmund D. Pellegrino Professorship of Medicine, an endowed chair, and the American Medical Association named him one of the Outstanding Contributors to Allied Health Education and Accreditation in 1980. □

## Weight Watchers at NIH

R&W is sponsoring a Weight Watchers at Work program for NIH employees. The first 8-week session will run from Sept. 29 through Nov. 17. The group will meet every Friday from 12 to 1 p.m. in the CPR classroom, Bldg. 31, B2 level. Cost for the session is \$80. Registration will be taken on Friday, Sept. 22 at the class site from 12 to 1 p.m. Class size is limited to 20 people and will be filled on a first-come, first-served basis. □

*'Bethesda System' Proposed***New System for Reporting Pap Smears Announced by NCI**

By Kara Smigel

A new system for reporting the results of cervical/vaginal Papanicolaou or "Pap" smears, the most effective screening method for detecting cervical cancers, was announced recently. "The 1988 Bethesda System for Reporting Cervical/Vaginal Cytologic Diagnoses" or "The Bethesda System," was developed at a National Cancer Institute workshop in Bethesda last December.

"By providing a uniform framework of diagnostic terminology, the Bethesda system will be an important part of current efforts to improve quality assurance in cervical Pap smear screening," said Dr. Diane Solomon, chief of NCI's cytopathology section and chairman of the terminology group at the December workshop.

The recommendations from the workshop, attended by cytopathologists and representatives of national medical and other organizations, appeared in the Aug. 18 issue of the *Journal of the American Medical Association*.

The primary recommendation is that the Bethesda system should replace the outdated Papanicolaou classification of cervical smears. Under the Papanicolaou classification, smear results are given a class number 1 through 5.

"While there was agreement that class 1 was normal and class 5 was cancer, there was no uniform consensus as to the meaning of intermediate classes 2 through 4," said Solomon. "The diagnosis of a Pap class 2 could have very different implications from laboratory to laboratory, creating confusion for both doctor and patient." Also, Pap classes do not provide diagnoses for noncancerous conditions, such as infections, which may be detected by Pap smears.

A Pap smear is obtained by a clinician gently scraping cells from a woman's cervix and spreading these cells on a glass slide. The slide is sent to a laboratory where it is stained and then examined under a microscope by a technologist trained to detect changes in cells that may mean cancer or a precancerous condition. Abnormal smears are reviewed by a cytopathologist.

To communicate information about the smear from the cytopathologist to the patient's physician, the Bethesda system uses clear, unambiguous, diagnostic terms to describe infections and precancerous and cancerous cell changes. It also reports on the adequacy of the cervical smear, identifying samples that are unsuitable for interpretation.

Recognizing unsatisfactory smears may help to reduce "false-negative" results (a negative reading for a patient that has disease) that can

occur in Pap smear evaluations. According to the American College of Obstetricians and Gynecologists (ACOG), between 15 and 40 percent of women who have cancer or precancerous conditions may have a Pap smear designated as normal. ACOG attributes half of the false-negative problem to clinician error taking the sample and the other half to laboratory personnel error in reading the specimen.

In response to concerns about false-negative readings, the federal government and three states (Maryland, New York, and California) have passed quality control legislation to regulate laboratories that screen Pap smears. Acceptance of the Bethesda system would facilitate greater quality control measures at laboratories where Pap smears are read.

Another recommendation from the workshop is that the cytopathology report on Pap smears should be considered a medical consultation rather than a laboratory test.

"The cervical/vaginal smear is not a simple laboratory test that is analyzed by a machine, like a blood glucose level," said Solomon. "It is a diagnostic evaluation that depends on the interpretation of thousands of cells on a slide by the human eye of a cytotechnologist or cytopathologist. Information regarding the patient's clinical status must also be considered in the evaluation. We need to disabuse other physicians and the public in general from the idea that the evaluation of a cervical/vaginal smear is a simple yes/no test."

The following professional organizations have already indicated their support of the

Bethesda system: International Academy of Cytology, American Society of Cytology, American Society for Cytotechnology, College of American Pathologists, and Planned Parenthood Federation.

Pap smear evaluation is greater than 90 percent effective in detecting cancer of the uterine cervix (neck of the womb). The death rate from uterine cancer has decreased more than 70 percent during the last 40 years mainly due to Pap evaluations and regular checkups. Currently, the 5-year relative survival rate for all cervical cancer patients is 66 percent, and reaches 80-90 percent with early diagnosis and 100 percent for women whose cancer is designated *in situ* (has not spread to neighboring tissues) at the time they are diagnosed. In 1989, there will be approximately 13,000 new cases and 6,000 deaths from cervical cancer in the United States.

The National Health Interview Survey of 1987 reported that less than half (48 percent) of American women age 18 or older had had a Pap smear within the previous year. About 65 percent had had a Pap smear evaluated within the last 3 years.

NCI and the American Cancer Society recommend that all women who are, or have been sexually active, or have reached age 18 have an annual Pap smear and pelvic examination. After a woman has had three or more consecutive satisfactory normal annual examinations, the Pap smear may be evaluated less frequently at the discretion of her physician. □



Guitarist David Terry entertains a lunchtime crowd in the east courtyard of the Clinical Center during the hospital's "Brown Bag Concert Series." The last two concerts in the series will be Sept. 5 and 19.

## BONE MARROW

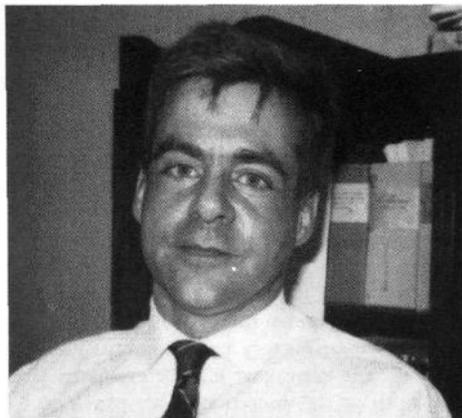
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VIC study so far; none has died due to the transplant phase of therapy.

The second study, whose drug regimen is called "ICE," targets patients suffering lymphoma relapse.

"We ultimately plan to apply BMT more upfront (earlier) in cancers that have a high risk of relapse following primary therapy," Wilson predicted. "BMT doesn't really belong in the relapse setting. That's getting behind the eight ball a little bit."

In autologous BMT, 2 weeks to 2 months can elapse between marrow harvest and a patient's readiness to be reinfused. The heavy dose of chemotherapy must, of course, clear the body before marrow can be transplanted. And, in some cases, the marrow must be purged of any cancer cells to prevent reintroduction of disease.



Dr. Wyndham Wilson of NCI's Medicine Branch is conducting several studies combining BMT with high dose/low toxicity drugs to fight certain cancers. He has done transplants here for the past 3 years.

"Most of our cell processing in autologous cases is aimed at preparing the marrow to get through freezing and thawing with the least possible damage," said Dr. Elizabeth J. Read, a hematologist in the Clinical Center's department of transfusion medicine. Unlike allogeneic transplants, which are accomplished almost immediately after harvest, autologous transplants wait awhile.

"We clean up the marrow a little before we freeze it, eliminating messy red cells, platelets that get clumpy and sticky, and many of the granulocytes."

To protect cells against freezing damage, the cryoprotectant DMSO is added to the marrow to limit ice crystallization.

The marrow rests in a liquid nitrogen

freezer until it is needed. Thawed in a water bath at the patient's bedside, the tissue is then reinfused when the patient is ready.

"DMSO stinks like garlic," notes Read, "and is excreted through the patient's lungs. But we don't wash it out of the marrow before reinfusion because we don't want to manipulate the cells further and lose progenitors (cells essential to a fully competent blood and immune system, also called stem cells).

"We're getting more and more familiar with how to handle bone marrow in our department," says Read. "Clinical outcome often depends on how well we optimize the product. There are a lot of tricks to it. It takes a lot of experience, which we're developing."

### NIH Donor Recruiters Excel

According to the best available estimates, there are about 9,000 people in the United States who have diseases for which BMT is advisable but who lack suitable donors within their own families.

To meet this need, a national registry of potential bone marrow donors was created several years ago. Its goal was to provide unrelated, though tissue-matched, donors for patients who need marrow transplants.

Today, the National Marrow Donor Program is an extramural arm of NHLBI. Included in its mission is recruitment of about 100,000 potential donors from across the country whose HLA type is known.

The registry is now about halfway toward its goal. Leading the pack in the recruitment of new donors are a handful of blood centers around the U.S. that have demonstrated unusual empathy with their communities.

"Some centers have a knack for acquiring a disproportionate number of donors," notes Dr. Paul McCurdy, director of the NMDP project within NHLBI. "That is because the leadership at these centers is unusually committed."

NIH's donor center, although small, has provided the national registry with a surprisingly large number of candidates. It is not uncommon for friends and relatives of NIH blood bank staff to be enrollees in the register. For example, David Read, a Washington lawyer whose wife, Elizabeth, is an NIH blood banker and hematologist, is signed up.

The following letter, written by Dr. David Lanar of Takoma Park, Md., to Dr. Susan Leitman of the department of transfusion medicine, may explain some of the NIH donor center's success:

"I was recently a donor in your bone marrow program. Throughout the whole procedure so many people told me what a great thing I was doing, how I was a 'hero', how 'brave' I was, etc. etc. Whether these

"I'm proud of our department's role in marrow transplantation," says Dr. Harvey G. Klein, chief of transfusion medicine at NIH. "We've done good things for people and patients, we've helped recruit bone marrow donors and we're thought of very highly as innovators in the automated processing of marrow. I don't think the extent of our activities is appreciated here at NIH."

NIH is one of 55 donor centers participating in the National Marrow Donor Program (NMDP), an extramural arm of NHLBI.

"We are the seventh largest center, with over 1,450 potential donors," reports Bernice R. Loiacono, the highly regarded recruiter/manager of the NIH center. "Since 1988, we have had five donors go on to donate for spe-

things are true or not, I took these accolades as thanks for what I was doing and did appreciate them. However I am writing this letter to turn the table, so to speak, and thank you and your staff for the extremely fine program you are running. Without the effort and coordination that your group (exhibits), the patient, who so greatly needs all our help, would never have the chance for a longer, happier life.

"I know there are many people in your group that make this program work but I want to especially thank Bernice Loiacono. Bernice was my medical social worker throughout this procedure. Without her help, guidance, caring and friendship for me and my family this donation would not have been as meaningful and as pleasant an experience."

Anyone at NIH wishing to volunteer for bone marrow donation or learn more about the registry may call 496-0572.



Bone marrow donor recruiter Bernice Loiacono of the NIH Plateletpheresis Center poses with two colleagues—Admiral (Ret.) Elmo R. Zumwalt Jr., chairman of the National Marrow Donor Program, and Chris Roberts, a leukemia patient at Georgetown University who is in need of a bone marrow transplant.

cific recipient-patients. Two recipients died during the initial posttransplant recovery phase. Three have been discharged and have returned home and are doing well."

There are approximately 46,000 donors currently registered with NMDP, a program administered by Dr. Paul R. McCurdy of NHLBI's Division of Blood Diseases and Resources. From that pool, about 180 donors have given their marrow to patients since September 1987. The registry has a goal of enrolling 100,000 tissue-typed donors. Most at present are Caucasian, but one-fourth of enrollees should be black and one-fourth should be Asian/Pacific American; the Hispanic gene pool, while far from homogeneous, is probably close enough to Caucasian that a special recruitment is unwarranted.

NIH acquired the NMDP program last

management contract at the University of Minnesota and studies of donor recruitment and management techniques at blood centers in Seattle (which has a very high success rate in converting blood donors to marrow donors), Pittsburgh and Milwaukee.

Foreseen are research projects examining human leukocyte antigen (HLA) type comparisons (a San Francisco blood bank, for instance, is saving frozen white cells from donor/recipient pairs to determine which HLA disparities are biologically important), studies of the behavioral, demographic and psychological attributes of donors (Why do people donate? What are the roots of altruism?), and investigation of how good the donor search process is.

"Only about 10 percent of the patients for

whom a search is requested go on to the transplant stage," noted McCurdy. "We find the highest rate of donor attrition at the 'Let's get serious' stage."

Observes the CC's Read, "Being a bone marrow donor is not a frivolous enterprise."

Nor is the recent resurgence of BMT at NIH. Says transfusion chief Klein: "NIH is probably the strongest basic immunology operation in the world. It has always seemed a shame to me that our unparalleled laboratory expertise has not been coupled with a clinical program."

Eighteen years ago, an aggressive BMT program at NIH was dismantled and its chief physician left the institutes for a private pediatric practice in Maryland. Today, BMT is

**(Continued on Page 8)**



*Dr. Paul R. McCurdy of NHLBI searches a computer screen for information on the National Marrow Donor Program, which he oversees. The recruitment program belonged to the Navy until this past spring.*

spring on the strength of recommendations made by Dr. Claude Lenfant, NHLBI director, who decided that NMDP fit in with the blood resource mission of his institute, and Dr. Jay Moskowitz, whose Office of Science Policy and Legislation wrote the justification for taking over the program from Navy.

Budgeted at some \$4 million this year, the NMDP is divided into four contracts, the largest of which (\$3.5 million) supports a coordinating center in Minneapolis run by the American Red Cross. This center monitors activities at the 55 donor centers and 25 transplant centers nationwide; Johns Hopkins and Georgetown universities are harvest centers for donors who joined the national registry through recruiters at NIH—no NIH donors are ever actually treated at NIH. Smaller grants fund a statistics and data

## Profile of BMT Patients

A good nurse probably would say that every patient is special. When a cancer nurse says that about bone marrow transplant patients, he means it.

"Our patients are the most complex in terms of patient care," said George Bryant, a nurse who works in the protocol office for the Medical Oncology Branch. "Oncology patients require a knowledge of all the basic systems—GI (gastrointestinal), heart, lungs, etc. They can get very sick, very quickly."

Currently, there are about 20 patients (with diagnoses of Hodgkin's disease, lymphomas or other cancers, mainly of the breast, ovaries and testes) participating in two bone marrow transplant studies at NIH—the VIC and ICE, acronyms for the complex and highly toxic chemicals the drugs contain.

"These drugs are not new," explained Bryant. "They've just never been used in these combinations, at these dosages, before."

BMT dosages of the drugs can be as great as 10 times the conventional therapy dosage. The treatment is made possible and (more importantly for patients) tolerable through bone marrow harvesting. Because it involves suppressing the patient's immune system, however, this therapy can turn the mildest infection into a virtual death threat for the patient.

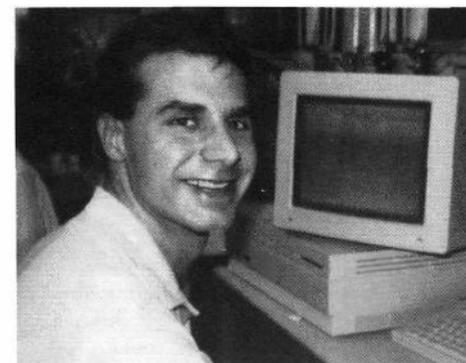
"At the first sign of fever, we start antibiotics," stresses Bryant. "We just try to make them as comfortable as possible."

Comfort is not easy on a unit where most patients are in some stage of isolation in an effort to prevent infection. Simple amenities most patients take for granted when they are in the hospital are off limits

to BMT patients. For example, children under age 12 (common carriers of mild germs) are not allowed to visit and fresh fruit and flowers are taboo because of aspergillus, a normally harmless fungus that can be fatal to patients with vulnerable immune systems. All patients are required to wear surgical masks whenever they leave their rooms.

"Isolation can get them down," said Bryant, listing basic rules for BMT patients. "They're prone to bleeding (men can't even use straight razors to shave), mouth sores and especially nausea and vomiting."

Nevertheless, for many patients the dis-



*George Bryant*

comfort of BMT therapy represents light at the end of a tunnel dark with unsuccessful, conventional treatments.

"We're trying to make bone marrow transplantation a first-line treatment. A lot of patients have been successful with this therapy. Still, as an oncology nurse you know that there are some patients who are going to die."—Carla Garnett

(Continued from Page 7)

being applied to more diseases in more institutes and is seen as an engine in the widening field of clinical immunology.

"Our knowledge of how to reconstitute the human immune system and how it functions normally has been helped immeasurably by bone marrow transplantation," said Dr. Ronald E. Gress, an NCI expert in the field. "To say that we've learned a lot about immunology through BMT is to say the least."

"I think there's very little question that bone marrow transplantation works," offered NHLBI's McCurdy. "But it can and must work better, and against more diseases."

BMT was attempted against AIDS in a study several years ago involving 18 HIV-infected patients who received healthy marrow from their identical twins; this is known as "syngeneic" transplantation.

Only two patients showed any sign of improvement, said Wyndham Wilson, who collaborated with Dr. Cliff Lane of NIAID on the study. "There was no meaningful improvement in the other patients' clinical status," Wilson said. "The derangement of the immune system was beyond the help of a fresh cohort of marrow cells."

Looking to the future, Wilson sees several hopeful avenues for BMT. The most critical component of marrow—stem cells—can now be harvested from peripheral blood instead of marrow.

"The peripheral stem cells are a little more mature than ones from marrow," he said. "If we transplant both marrow cells and peripheral cells, we see immune reconstitution about 4-5 days sooner than if we just used marrow."

Another significant new advance is the discovery, in mice at least, that there are substances that can protect bone marrow from harm due to radiation and drugs used in ablating (nullifying) a recipient's marrow.

"Even if they preserved only 10 percent of a patient's marrow (which is roughly the amount of marrow transplanted from a healthy donor), these agents, which include interleukin-1 and gamma interferon, could eliminate the need for a bone marrow transplant altogether," Wilson said.

Such protective agents, if successfully employed in humans, could mean the end of autologous BMT and the freezing and thawing of marrow.

"We might be able to add a colony stimulating factor to the protective agents in order to stimulate marrow reconstitution," he continued. "It's all theoretical at the moment, but I think we'll test these ideas in the next 2

years."

Meanwhile, the NIH scientific directors are still searching for the most appropriate institutional locale for a BMT unit—if one is created at all—and for the best way to pay for it.

"It is by no means a fait accompli," says Harvey Klein. But signs are good for engraftment of this endeavor. □

### Fredrickson Speaks at Workshop

One of the highlights of the recent NIH/FDA sponsored workshop on "Ethical Issues in Biomedical and Behavioral Research" was Dr. Donald S. Fredrickson's overview of the histories of NIH and protections for human subjects of research. The former NIH director traced the beginnings of NIH's leadership role in establishing a firm foundation for the ethics of research activities here and abroad.

Fredrickson is scheduled to speak at the upcoming Sept. 18-19 Ethics Research Program at the Uniformed Services University of the Health Sciences' auditorium. Workshop topics will focus on ethical protections of human subjects in biomedical and behavioral research, present and future perspectives; research during pregnancy and AIDS research, nationally and internationally; the importance of informed consent, risks/benefits assessment; the process of designing, approving and funding research; and equitable selection of subjects in research involving humans.

The 2-day program lasts from 8:30 a.m. to 4 p.m. each day and is open to anyone engaged in research. Advanced registration is required; contact Agnes Richardson, 496-8101. □

### CRISP Training Offered

A 1-day training course on the "Introduction to the CRISP System," is being offered by DRG on Sept. 21, Oct. 12, Nov. 16 and Dec. 7. This course is a comprehensive overview of the extramural and intramural projects covered under CRISP (Computer Retrieval of Information on Scientific Projects), detailing the scientific indexing and the system's search capabilities. A hands-on problem solving session is also included.

A request to attend this course should be directed, in writing, to the chief, research documentation section, Division of Research Grants, Rm. 148, Westwood Bldg. and should be received at least 10 days in advance of the preferred course date. Form HHS-350 is not required. For more information, call 496-7543 or consult the Share Training facility on Wylbur for course details. □



In addition to membership in the Institute of Medicine of the National Academy of Sciences, NCNR director Dr. Ada Sue Hinshaw also recently received the Centennial Medallion Award from the University of Arizona, recognizing her as a distinguished alumna. She earned her Ph.D. in sociology from the University of Arizona in 1975, and became the NCNR's first permanent director in 1987.

### Sociobiologist Wilson To Lecture

Dr. Edward Osborne Wilson will present the Florence Mahoney lecture on aging entitled, "The Social Roles of Aging and Older Individuals: Animals and Humans," on Wednesday, Sept. 20, at 8 p.m. in the Lipsitt Amphitheater of the Clinical Center.

Wilson is the Frank B. Baird, Jr., professor of science at Harvard University and is curator of entomology at Harvard's Museum of Comparative Zoology. A renowned sociobiologist, he is known for his studies of the biological basis for the social behavior of ants, human beings and other animals. His book *On Human Nature*, won the Pulitzer Prize for nonfiction in 1979.

The annual Florence Mahoney lecture is sponsored by the National Institute on Aging. For information about attending the event contact Shirley Bagley, 496-0765. □

### Winter in Yellowstone Photo Trip

Here's your opportunity to take a winter photographic trip to Yellowstone National Park. See hundreds of elk, dozens of frost-covered bison, coyotes, snow-burdened trees plus awe-inspiring steam geysers and ice formations. We'll cover all the park's best spots and do a little snowmobiling and cross-country skiing if you're up to it. We are going twice. There are just a few places left on either date. For all the details call John Boretos, NIH/R&W Camera Club trip coordinator, 460-8448. Cost is \$1,175 each; Jan. 13 (Sat.) through Jan. 21 (Sun.)—over George Washington's holiday, and Feb. 17 (Sat.) through Feb. 25 (Sun.)—over Martin Luther King's holiday. □

## Dr. Nathan Shock, Pioneer of Aging, Honored in Baltimore

By Jan Ehrman

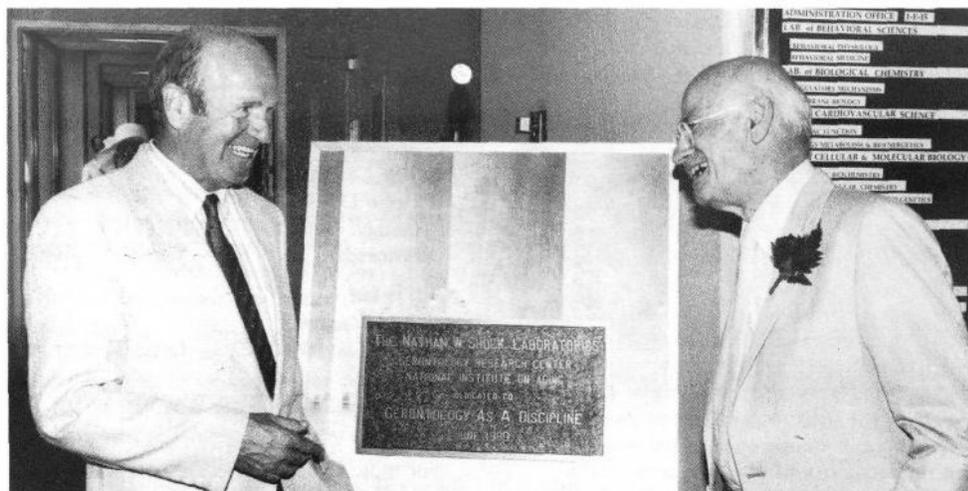
The National Institute on Aging's Gerontology Research Center (GRC) in Baltimore, has been designated the Nathan W. Shock Laboratories in honor of Shock, who pioneered and developed aging research programs at NIH for 35 years.

About 200 guests attended the recent dedication ceremony, including NIH acting director Dr. William Raub.

Often called the "father of aging research," Shock has long been recognized as both a national and international leader in aging investigations. In 1941, with one technician, he began conducting studies of aging for NIH at the Baltimore City Hospitals. In 1958, Shock initiated the now world-famous Baltimore Longitudinal Study of Aging (BLSA), an in-depth investigation of the normal (healthy) aging process. Today the BLSA consists of more than 1,000 participants of all ages who routinely take part in biomedical and behavioral testing.

Shock was a driving force behind the building and development of the GRC, a 190,000-square-foot facility that opened in 1968. Currently more than 300 staff and guest scientists work in the laboratories based in the center; they conduct a variety of studies related to the processes of aging.

In addition to planning and developing the GRC and its scientific programs, Shock was responsible for giving many young scientists



Dr. George R. Martin (l), NIA scientific director and Gerontology Research Center (GRC) director, and Dr. Nathan W. Shock, NIA scientist emeritus, stand before the plaque renaming the GRC laboratories in honor of Shock.

and physicians their first exposure to aging research.

Shock has received numerous awards and honors from both the federal government and private sector. He is the author or coauthor of more than 300 publications.

In addition to Raub, speakers at the ceremony included NIA director Dr. T. Franklin Williams; NIA scientific director and GRC

director Dr. George Martin; and former GRC director Dr. Richard Greulich.

A close friend and colleague of Shock's said in closing remarks that GRC would always be remembered as "the house that Shock built."

During the ceremony, Shock noted how much progress has been made in his 50 years of involvement in aging research and thanked all the participants for their contributions. □

## R&W Western Weekend

Sneak away on Oct. 14-15 for a weekend of western style fun amid the spectacular fall scenery of the Blue Ridge Mountains. On Saturday, take to the trails to explore the scenic acreage of Marriott Ranches on horseback. Then feast on a hearty cookout, followed by an evening of live bluegrass music and square dancing. Sunday will be yours to explore the area—hike, visit a winery or take a drive on the nearby Skyline Drive.

This weekend package is only \$85 per person, which includes a 3-hour horseback ride, Saturday night's entertainment and lodging and three meals. Accommodations are at the Northern Virginia 4-H Educational Center's Robinson Lodge, situated on 229 acres just south of Front Royal, Va. The center offers tennis, basketball and volleyball courts, and is traversed by the historic Appalachian Trail. Robinson Lodge is a modest 18-room facility with bunk beds and a private bath for each room.

For more information or to sign up, contact the R&W Activities Desk, Bldg. 31, 496-4600. A \$25 deposit is due upon reservation. □



Honored undergraduates supported by the NIGMS Minority Access to Research Careers (MARC) Program recently gathered in the NIH Clinical Center to meet one another, NIGMS staff, and representatives of other NIH components, as well as to share their experiences as summer interns in NIH laboratories. These students, who have expressed an interest in research careers, receive support during their third and fourth years of college at institutions with substantial minority enrollments. During the summer, the students participate in research at universities and laboratories outside their own schools. With support from a number of institutes, 43 MARC students chose to do research at NIH this summer.

## Guest Lecture/Film Series

### Stress Passages: Surviving Life Changes in Turbulent Times

The NIH Employee Counseling Services will present its 1989-90 Guest Lecture/Film Series beginning in September 1989 and running through June 1990. The theme of the series is "Stress Passages: Surviving Life Changes in Turbulent Times."

A combination of 10 lecture presentations and 10 films will be presented on the NIH campus at the noon hour. The purpose of this series is to provide information to the NIH community on the effects of rapid social change and transition on the individual, the family and the workplace.

Each month a presentation followed by a question and answer session will be led by an expert in the field focusing on various aspects of our lives in transition. On the week following the lecture, a film on the topic and a small group discussion will be offered.

Throughout the fall of 1989, the Guest Lecture Series will be presented both on the main NIH campus and at the Westwood Bldg. The fall schedule for both locations is listed below.

#### September

*Making Connections: Dealing With the Stress of Life Change*

Michael Bowler, Ph.D.

Thursday: Sept. 14 — Wilson Hall

Friday: Sept. 15 — Westwood, Rm. 428

Film: *Stress Management: You Are In Control*

Thursday: Sept. 21 — Conf. Rm. 8, Bldg. 31

Friday: Sept. 22 — Westwood, Rm. 428

#### October

*Families Under the Influence: Adult Children of Alcoholics as Parents and Partners*

Lorraine Wodiska, Ph.D.

Thursday: Oct. 12 — Westwood, Rm. 428

Friday: Oct. 13 — Wilson Hall

Film: *Trying To Find Normal*

Wednesday: Oct. 18 — Little Theater, Bldg. 10

Thursday: Oct. 19 — Westwood, Rm. 428

#### November

*Workers Under Stress: Conflict Mediation in the Workplace*

Carol Weiss, M.S.W.

Thursday: Nov. 9 — Wilson Hall

Friday: Nov. 10 — Westwood, Rm. 428

Film: *Conflict Management*

Wednesday: Nov. 15 — Wilson Hall

Thursday: Nov. 16 — Westwood, Rm. 428

#### December

*Taking Care of Today and Tomorrow: Aging Adult Children and Aging Parents*

Celeste D. Galati, M.S.W.

Tuesday: Dec. 19 — Wilson Hall

Wednesday: Dec. 20 — Westwood, Rm. 428

Film: *Eldercare*

Wednesday: Dec. 27 — Little Theater, Bldg. 10

Thursday: Dec. 28 — Westwood, Rm. 428

For more information about the series, call the Employee Counseling Services office, 496-3164. □



Gloria Grauman, a grants technical assistant in the NIGMS Office of Program Activities, retired recently after 14 years with the federal government. During those years at NIGMS, Grauman received six awards, and also served on the NIGMS EEO advisory committee for 5 years. Over the years, she and her husband have been active in three square dancing clubs and now plan to spend time traveling with the clubs.

### Former NCI Employee Found No Humdrum Here

Former NCI employee Ora Marshino died Feb. 7, 1989, at the age of 94.

Although only one of thousands of young women from across the United States who came to Washington, D.C., during World War I seeking work, Marshino stood out from the crowd.

She began her government career doing administrative work for the U.S. Department of Labor Children's Bureau. While holding various government jobs, she earned her A.B. in 1925 and her A.M. in 1932 from George Washington University. By 1938 she earned her doctorate of jurisprudence, also from George Washington, and began working for the newly created National Cancer Institute.

In a February 1981 article in the *Owensboro (Ky.) Messenger and Inquirer*, Marshino said, "There were always opportunities in government for the use of law. I would have been scared to death to do certain administrative work without a legal background."

At NCI she helped establish research projects, fellowships and traineeships and oversaw radium loans to hospitals. Marshino also worked to develop the *Journal of the National Cancer Institute*, which was first published in April 1940 at the annual subscription rate of \$2. In an April 1944 article in the *JNCI*, Marshino described

how the first NCI director, Dr. Carl Voegtlin, organized the institute and its work.

She held several NCI positions that included doing administrative work, researching and writing reports, and acting as information specialist. Toward the end of her NCI career, Marshino collaborated with the American Cancer Society to create the cancer exhibit at the Seattle World's Fair in 1962. Later that year she retired and was hailed by her colleagues for her significant contributions to the institute.

After several months abroad, she worked for the Republican National Committee as an executive assistant to the subcommittee on human needs. Later she worked for the Washington Legal Aid Society and a lawyer referral service before returning to Daviess County, Kentucky, where she had lived as a teenager.

She was a member of the American Bar Association and the Bar Association of the District of Columbia.

Marshino's interest in science prompted her to will the bulk of her estate to the University of Louisville School of Medicine, where a scholarship for women medical students needing financial assistance will be created. Funds will also support scientific research.—Debbie Dortch



## TRAINING TIPS

The NIH Training Center of the Division of Personnel Management offers the following:

<i>Courses and Programs</i>	<i>Dates</i>
<i>Management and Supervisory</i> 496-6371	
Interacting With Difficult People	10/11
Time Management	10/12
Managing Behavior in the Work Environment	10/17
How To Write and Publish Scientific Papers	10/23
Working With Personal Differences: MBTI I for Professionals	10/25
<i>Office Operations Training</i> 496-6211	
Introduction to Working at NIH for New Support Staff	10/23
Basic Time and Attendance	10/5
Delegated Acquisition	10/16
Proofreading and Editing	10/2
Working With Personal Differences: MBTI I for Technical and Support	10/18
Quality Writing Strategies That Work	10/23
Medical Terminology I	10/16
Domestic Travel	10/2
Foreign Travel	10/17
<i>Training and Development Services</i> 496-6211	

Personal Computer training is available through User Resource Center (URC) self study courses. There is no cost to NIH employees for these hands-on sessions.

The URC hours are:

Monday	8:30 a.m. — 4:30 p.m.
Tues. Wed. Thurs.	8:30 a.m. — 7 p.m.
Friday	8:30 a.m. — 4:30 p.m.
Saturday	9 a.m. — 1 p.m.

NOW AVAILABLE ON SHARE TRAINING FY 89 Training Center courses. Access Wylbur and enter SHARE TRAINING. First time users only, enter: x fr &ags2UGL.@@share(setup) on file37

### Fall Foliage Bike Tour

Enjoy cool fall weather and the magnificent colors of the Catoctin Mountains on this "Covered Bridges Ride" Sunday, Oct. 22, in Frederick County, Md. Choose from 13, 20, or 28-mile rides on easy terrain.

Cost for the trip is \$17 per person and includes experienced tour leaders from Open Road Bicycle Tours, maps and written directions, a 10/12 speed riding/shifting lesson, vehicle support should you not want to finish a ride, and on-the-road bike repairs if needed. For an additional \$23 you can rent a 12-speed lightweight Miyata bicycle and helmet. Sign up today at the R&W Activities Desk in Bldg. 31, 496-4600. □

## Dr. Ulrich Weiss, Retired NIH Chemist, Dies

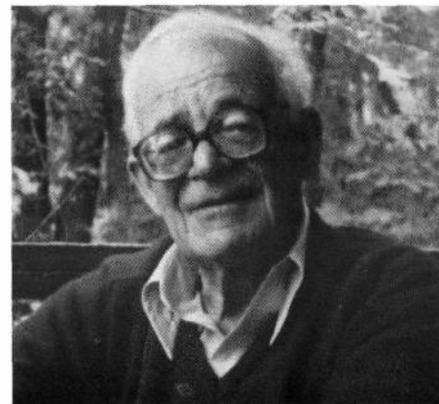
Dr. Ulrich Weiss, 81, a chemist at NIH since 1957 who retired in 1978 to become scientist emeritus at NIDDK, died of cardiac arrest July 15 in Denpasar on the island of Bali.

Weiss made substantial contributions in natural product chemistry, medicinal chemistry and synthetic methods. A condensation reaction in the latter field has been named the "Weiss reaction."

He coauthored a book, *The Biosynthesis of Aromatic Compounds*, and more than 130 papers.

For many of his NIH colleagues, Weiss, because of his vast knowledge extending over the entire literature of chemistry, botany, plant physiology and medicinal chemistry, acquired a reputation as an invaluable source of information. His erudition extended to music, mineralogy and especially the history of science. In a more technical environment, he represented Old World scholarship at its best.

A resident of Bethesda for the last 32 years, Weiss was born in Prague, where he studied chemistry and earned his Ph.D. at the then German University. After Hitler annexed Czechoslovakia, Weiss and his wife Anna left for Brussels. It was to be the beginning of a precarious odyssey that included sojourns in Paris, Puy de Dome, Marseille, Martinique and New York, where they arrived with their daughter, Ruth, on June 2, 1941.



Dr. Ulrich Weiss

Shortly before his death, Weiss, in a 4-hour taped interview, recorded the details of this passage for the documentation center of the U.S. Holocaust Museum.

Weiss was well known in the international scientific community as an ambassador of goodwill for NIH. Among his many interests and hobbies was the collection of minerals, fossils and Indonesian and American textiles. His interest in Bali goes back to 1968, when he befriended one of the last kings of the island.

Survivors include his wife, two daughters, Ruth Bollinger of Portland, Ore., and Margaret Weiss of Los Angeles, and three granddaughters.

## NIEHS' Walters Receives Chemical Society Award

The American Chemical Society has named Dr. Douglas B. Walters recipient of its 1989 national award for chemical health and safety. The award recognizes and encourages outstanding contributions to the science, technology, educational advancement or communication of chemical health and safety.

Walters is head of chemical health and safety for the National Toxicology Program, part of the Division of Toxicology Research and Testing at NIEHS. NTP has two related roles: to determine the toxic effects of chemicals and to develop better, faster and less expensive test methods.

Walters oversees responsible transport, storage, laboratory use and disposal of a wide variety of chemicals, including both those under study and those used in laboratory procedures, in federal laboratories and in contract laboratories throughout the U.S.

In this role, he establishes standards of

excellence in chemical health and safety procedures that serve as examples to the academic research community and to commercial research laboratories throughout the country.

The American Chemical Society's award for chemical health and safety was established in 1983. Nomination for the award, which includes both a certificate and cash, takes place through a formal nomination process; the award will be presented in the fall at the national ACS meeting.

Walters has been with NIEHS since 1977, and with the federal government since 1970, serving earlier with the Environmental Protection Agency and the U.S. Department of Agriculture. He has published and presented widely, and has served on many science and policy committees, panels and editorial boards. Walters and his wife live in Raleigh, N.C.—Thomas Hawkins □

## New Time for Layman Lectures

The Medicine for the Layman (MFL) lectures, an annual series of medical talks produced specifically for the general public, presents its 1989 schedule at a new time this year—7 p.m. on Tuesdays.

MFL gets under way Sept. 19 with a look at preserving human memory in "The Anatomy of Memory," presented by Dr. Mortimer Mishkin, chief of NIMH's Laboratory of Neuropsychology.

The series continues on Oct. 3 when Dr. Robert E. Silverman, chief of NIDDK's Diabetes Programs Branch, will discuss his clinical research on a new method of treating "Diabetes in Adults."

On Oct. 10, Dr. David P. Friedman, deputy director of NIDA's Division of Preclinical Research, will address addictive disorders in "Drugs and the Brain: The Root of Addiction."

Dr. Philip Pizzo, chief of NCI's Pediatric Branch, will present treatment strategies and psychosocial care of children with AIDS on Oct. 17 in "AIDS in Mothers, Infants and Kids: A Growing Problem."

"Obsessive Compulsive Disorder: New Hope, New Help," a discussion focusing on childhood obsessions, will be delivered Oct. 24 by Dr. Theresa Pigott, chief of NIMH's adult OCD clinic.

The last lecture of the 1989 MFL series, "Diagnostic Imaging: Has the Physical Exam Gone High Tech?," presented on Oct. 31 by Dr. Martin Begley, senior staff diagnostic radiologist in the Clinical Center's diagnostic radiology department, will highlight the most recent advances in detecting, identifying and treating disease using such tools as CT scans, magnetic resonance imaging and ultrasound.

Sponsored every fall by the Clinical Center, MFL is now in its 13th year. All lectures are free and will be held in the Masur Auditorium, CC. For additional information, call Irene Haske or Mary Jane Walker, 496-2563. □

## Skins/Casino Weekend Offered

R&W offers 2 days of fun at a great price. Saturday, Nov. 11, you'll be escorted to Atlantic City for some casino action, then to your hotel in Philadelphia. On Sunday, Nov. 12, enjoy the Philadelphia/Redskins game. Cost is \$154 per person, double occupancy, and includes motorcoach transportation, hotel accommodations and ticket to Sunday's game.

Reservations must be in by Sept. 21. Contact the R&W Activities Desk, 496-4600, located in Bldg. 31, Rm. B1W30. □



*The American Medical Association recently honored NIAID director Dr. Anthony S. Fauci with the Dr. William Beaumont Award in Medicine at the association's annual meeting in Chicago. The award—one of five major awards presented by the AMA—is presented yearly to an American physician, 50 years old or younger, who has made an outstanding contribution to medical research, teaching or clinical practice. Among his other accomplishments, Fauci demonstrated the precise nature of the immune defect in AIDS and has been instrumental in developing strategies for the therapy and immune reconstitution of AIDS patients.*

## Retirement Planning Offered

The Recruitment and Employee Benefits Branch, DPM, is offering another Retirement Planning Program for NIH employees on Sept. 21 and 22. A personnel bulletin will be distributed desk-to-desk giving more detailed information. □



*NIGMS director Dr. Ruth L. Kirschstein is one of the "100 Most Powerful Women" featured in the September 1989 issue of The Washingtonian. The achievements of Kirschstein and other honorees, including Barbara Bush, Sandra Day O'Connor, Katharine Graham and several senators and representatives, will be recognized at a luncheon on Sept. 15 at the National Museum of Women in the Arts.*



*The Westwood Winds Clarinet Choir performed recently for a noontime crowd gathered outside the Bldg. 10 basement cafeteria. Sponsored by the NIH Lodge of the Order Sons of Italy in America, the concert included five classical compositions and featured free refreshments.*