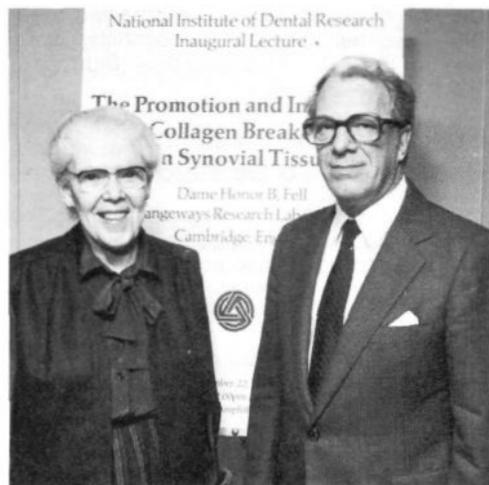


The NIH Record

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After Dr. Fell's (l) inaugural NIDR annual lecture last month, Dr. Loe and other colleagues attended a reception in the ACRF.

British Woman Scientist Inaugurates NIDR Lectures

Dame Honor B. Fell, who pioneered organ culture techniques in the 1920's that are still used today, delivered the first National Institute of Dental Research Annual Lecture at NIH on Sept. 22.

She was introduced by Dr. Harold Loe, NIDR's Director, who initiated the series to honor distinguished scientists who have made outstanding basic and clinical research contributions in fields directly related to the research interests of NIDR.

Dame Fell spoke on "The Promotion and Inhibition of Collagen Breakdown in Synovial Tissue," presenting data on such factors as prostaglandins which promote resorption of collagen in synovial tissue.

Her talk was based on research in skeletal biology and development which she has conducted at the Strangeways Laboratory in Cambridge, England during the past few years.

Outstanding Research Career

Dame Fell's outstanding research career started in 1923 when she began working with Dr. T.S.P. Strangeways to develop organ culture of embryonic limbs. Their work was conducted in a small research hospital that Dr. Strangeways had founded in 1905 for studies on rheumatoid arthritis.

The hospital, which operated solely on donations from several benefactors, faced a severe financial crisis following the death of Dr.

(See DAME FELL, Page 9)

Hopkins Scientists View First Neuroreceptor In Live Brain in NINCDS-Supported Work

The first successful imaging of a neurotransmitter receptor in the living human brain has been accomplished by Johns Hopkins medical scientists through work supported by the National Institute of Neurological and Communicative Disorders and Stroke.

The scientists used a positron emission tomography (PET) scanner and a new chemical technique to show the distribution of dopamine receptors in parts of the brain concerned with motion and emotion.

Published in the Sept. 23 issue of *Science*, the Hopkins work is important not only as a demonstration that receptors in humans can be visualized but because the chemical technique can be applied to many other receptors.

These tiny structures on the cell surface play important roles in a host of diseases and are the sites where all drugs elicit both therapeutic and side effects.

The 13-member Hopkins Medical Institutions team of chemists, physicists, biologists, and physicians was headed by Dr. Henry N. Wagner Jr., director of nuclear medicine and radiation health sciences.

Until now, the PET scanner has been used largely to provide a reflection of overall nerve cell activity. Mapping of neuroreceptors has been limited to studies conducted during autopsy using a technique developed by one of Dr. Wagner's associates, Dr. Michael J. Kuhar, professor of neuroscience, psychiatry, and pharmacology and experimental therapeutics.

To view the neuroreceptor that binds with dopamine, the Hopkins scientists had to find a way to attach a radioactive "label" to a chemical that mimics dopamine's ability to adhere to the receptor.

The antischizophrenic drug methylspiperone is known to bind to these receptors when injected into the blood stream. But efforts at Hopkins and elsewhere to label it radioactively in the usual fashion failed to reveal the receptors.

Then two members of the Hopkins team—Dr. H. Donald Burns, associate professor of environmental health sciences and associate director for radiation health sciences research, and Dr. Robert F. Dannals, instructor of environmental health sciences—thought of using carbon-11 methyl iodide to label the drug by a chemical process called N-alkylation.

This new method worked. And it may work for other neuroreceptors as well, because

other neurotransmitters have groups of atoms identical to the group that accepted the radioactive label in the methylspiperone experiments.

The labeled methylspiperone was injected into animals, and their brains studied with the PET scanner. The scanner detected the activity of minute particles, called positrons, emitted by the radioactive label and used computer graphics to show where the positrons were located.

This experiment confirmed that PET scanning with Drs. Burns' and Dannals' labeled methylspiperone imaged dopamine receptors in the animals' brains.

The first human research subject was Dr. Wagner. On May 25, 1983, he received a dose of the radiolabeled methylspiperone, and his brain was examined with the PET scanner. The only discomfort was the needle prick when the drug was injected, he reports, and his body was exposed to no more radiation than it would receive from a regular X-ray.

The resulting PET images showed dopamine receptors in the brain's gray matter, specifically in two areas of the basal ganglia—the caudate nucleus and the putamen.

A potential benefit of this new method of studying neuroreceptors could be a better understanding of Parkinson's disease, or shaking palsy, thought to be caused by a deficit in dopamine receptors.

(See NEURORECEPTOR, Page 8)

Organ Transplant Group Organizes National Council

A national group to increase the availability of organs for transplantation was formed Sept. 21 by a steering committee, meeting at Millwood, Va. The new group, American Council on Transplantation (ACT), will be comprised of organizations, health professionals and others interested in organ donation.

The group named Dr. Gary Friedlaender, an orthopedic surgeon of the Yale University School of Medicine, as interim president. He will serve until ACT's first formal meeting, which is expected to be held in January 1984.

Members of the steering committee expressed concern about suggestions that or-

(See TRANSPLANTS, Page 4)

The NIH Record

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Training Tips

The following courses, sponsored by the Division of Personnel Management, are given in Bldg. 31 unless otherwise indicated.

Office Skills	Course Starts	Deadline
Time and Attendance	11/7	10/25
Letterwriting for Secretaries	12/7	11/14
<i>Executive, Management and Supervisory</i>		
Planning for Prevention and Results	10/26	10/14
Behavioral Strategies for Supervisors and Managers	11/14	10/26
Dynamic Listening	11/17	11/1
<i>Self Assessment and Career Options</i>		
For Professionals (9-11)	11/17	10/20
For GS 1-8	11/15	10/18
DELPRO		
*Delegated Procurement	11/28	11/14
<i>Communication Skills</i>		
The Supervisory Grade Evaluation Guide	11/21	10/12
**Grant Information Workshop and FOI Privacy Act	11/15 or 11/19	10/18
*For new Delpro users only		
**Offered at Westwood		

To learn about these and other courses, contact the Development and Training Operations Branch, DPM, 496-6371.

R&W Hockey Club Begins Season

The NIH R&W Hockey Club will begin its season on Thursday evening, Oct. 27, 10:30 to 12 p.m., at the Wheaton Ice Rink, and continue every week. Interested hockey players should call Pierre Henkart, 496-1554, for further information. □

Travel Agency Now Handles All NIH Official Travel

As of Oct. 3, all NIH official travel has been arranged by Ober United Travel Agency.

The agency offers complete travel services, that is, domestic and foreign airline flight information and reservations, itinerary assistance, auto and hotel reservations. They make the reservations, prepare and issue tickets.

Travel service is also provided to walk-in and telephone customers, and private individual and group travel arrangements will be available through the agency also.

Airline ticket delivery to NIH off-campus offices within the Bethesda/Silver Spring area is available. Tickets for NIH activities outside of these areas are to be picked up in Bldg. 31, Rm. B2B-33. The telephone number for official NIH travel is 496-8900.

For questions or problems concerning the Ober United Travel Agency operations, contact Bill Arnwine, chief, Travel and Administrative Services Branch, on 496-6876. □

Results of NIH's 10-Mile Run

Sunday, Sept. 18, provided the perfect morning for running of the NIH Health's Angels 8th Anniversary 10-Mile Run. A record 128 runners turned out for the 10-miler along the tree-lined bike path in Rock Creek Park.

Bob Stack, 26, of the Washington Running Club became the first two-time winner of the event, shaving 11 seconds off his 1980 winning time by finishing in 54:44.

Amy Jermann, 32, of the D.C. Harriers was the fastest woman with the outstanding time of 66:13. Walt Conrad, age 25, at 56:35 and David DeAnna, 19, at 57:00 finished 2nd and 3rd overall.

Jerry Moore was again the fastest NIH'er with the time of 57:55; Jerry, 35, has taken this title 4 of the last 5 years. Rachel Levinson, 31, in her first attempt at a race of this length, was the fastest NIH female runner finishing in 89:45.

Jim Larkin, 35, of the D.C. Road Runners returned to successfully defend his "Unbody" title, lowering his 1982 record for this category to 60:40. He was followed by the previous 3-time "unbody" champion, Bill Sollers, 44, in 65:44. The famous NIH "Unbody" Award goes to the fastest runner whose weight equals 2.5 times or more his/her height in inches.

The 10-mile run was a great success with 125 finishers out of 128 starters; over 60 runners finished the 10 miles in under 70 minutes. The featured 10-miler was preceded by a 1 mile Fun-Run for kids age 10 and under and a 2 mile Run-For-Your Life. An additional 30 runners turned out for these two events.

The NIH Anniversary Run Plaque, engraved with the names of each year's winners, will be on permanent display in the ACRF.

The next event sponsored by the Health's Angels will be the second annual 5 kilometer Cross-Country Race on the NIH reservation on Oct. 17, in conjunction with the Combined Federal Campaign Kickoff. Runners—beginners or veterans—interested in joining the Health's Angels can obtain application forms at the R&W office in Bldg. 31, Rm. B1W30. □

STEP Reminder

This year's STEP (Staff Training in Extramural Programs) modules and forum will focus on the quality of the research supported by NIH, and the quality of NIH's relationships with many communities.

The 1983-1984 STEP Forum lecture series will provide opportunities to explore topics such as current legislative issues that have an impact on NIH, misconduct and scientific fraud, alternate sources of research support, implications of hybridoma research, and other topics.

The application deadline for modules 1-4 is Oct. 14. Applications may be obtained from BID personnel offices, STEP committee members, or the STEP Program office, Bldg. 31, Rm. 1B63; 496-1493. □

Resource Fair on Elderly Home Care To Be Held Nov. 3

On Thursday, Nov. 3, from 1 to 7 p.m., the Provider Council of Montgomery County will hold a Community Resource Fair showcasing the many resources available in Montgomery County to help older persons continue to live at home.

Sponsored by the Montgomery County Division of Elder Affairs, the fair will be held at the Holiday Park Senior Center, 3950 Ferrara Dr., Wheaton, Md. (From NIH, take Connecticut Ave. toward Wheaton, turn left on Viers Mill Rd., and take the first left at Ferrara Dr.)

Representatives from the County's many service agencies will be available to answer your questions. Participants will include Homemaker/Home Health Services, Adult Day Care, Meals-on-Wheels, Respite (Relief) Care, Assessment Services, Friendly Visiting, and many more.

For more information, call (301) 468-4450. □

Library Recarpeting Postponed

Arrangements are under way for a complete recarpeting of the NIH Library. A recent memorandum distributed desk-to-desk at NIH announced that the lower level of the Library was to be closed on weekends and in the evening to prevent damage to the work in progress, and that access to parts of the lower level would be limited during the day.

Because of unexpected contractual difficulties the carpet laying has been postponed for a period of 1 to 4 months. In the meantime, the lower level will be open evenings and weekends as usual, and there is no limitation on access to any part of the lower level.

Because of the interruption, however, part of the lower level is now uncarpeted, and the NIH Library staff regrets the inconvenience this may cause to library users. When the carpet laying is scheduled again, temporary evening and weekend closings of the lower level will be announced. □

R&W Volunteers Needed

Want to learn more about NIH's Recreation & Welfare Association? Volunteer to serve on the R&W Executive Council.

As a representative of your BID, you will become the voice of your membership. To volunteer, contact your executive officer. □

1984 Combined Federal Campaign—A New Look

It's Combined Federal Campaign time again—Oct. 17-Nov. 22. But this time, you will see some changes—CFC T-shirts for the kick-off race, a free band concert, and keyworkers enthusiastic about the campaign.

Behind some of the changes is the fact that this year's keyworkers have received training prior to the campaign, they are more informed and will be able to answer all your questions, and more importantly, they are true volunteers because they believe in the CFC themselves. NIH has approximately 750 people who have volunteered their services to work on this campaign.

T-shirts have already been printed for the kick-off race. This was made possible because there is a committee that now works year round on the Combined Federal Campaign.

Serving on this committee is a permanent CFC coordinator from each BID. The commit-



tee is responsible for bringing the benefits of early planning to the campaign.

Goals? Money is important but it is equally important that you feel personally rewarded

Combined Federal Campaign: To Give or Not To Give?

Prospective givers and non-givers to the Combined Federal Campaign every year debate with themselves over whether they should contribute.

NIH's CFC Coordinating Committee, headed by Dennis Askwith of NICHHD, has summarized several of the most common arguments for and against giving to the campaign, and why they think the reasons for giving win out.

A summary follows, with the argument against giving listed first (●), followed by the reasons in favor of giving (□):

● The CFC is an unnecessary middle man. I prefer to give directly to my favorite charity.

□ By acting as sole middleman for over 300 voluntary health and welfare agencies, CFC keeps administrative costs of fundraising to about 4 cents for each dollar contributed. It costs an average of 25 cents per contributed dollar for individual agencies to directly solic-

it potential donors.

Further, the CFC monitors all recipient agencies to make certain that they are providing the services they claim and that all clients are served regardless of race, national origin or ability to pay.

● Politically oriented and advocacy organizations have no place in the CFC.

□ Only gifts specifically designated for such groups will go to those 41 National Service Agencies. Undesignated gifts go only to the 287 traditional charities of the National Health Agencies, the United Way and the International Services Agencies.

● There's no assurance that our designated gifts go to the agencies we designate.

□ You can verify that your designated gift went to the agency you named by checking with that charity. Each charity gets a comput-

by helping others. The committee feels that every employee should have access to up-to-date information about the CFC and what it stands for, what the money will be used for, etc.

Most people want to help others so it is an individual decision as to how much to give. The committee would like to see the slogan, "Give till it makes you feel good about yourself."

There will be different activities in each BID to raise money for the CFC. We urge everyone to come out and join in the fun and help support CFC while enjoying yourself. See you at the big kick-off race, Oct. 17, at noon in front of Bldg. 1. □



*Hand
in
Hand*
HELPING OTHERS

er printout of the names of their designating contributors and the amounts.

● Improper pressure to give to CFC is put on us.

□ NIH management is committed to avoiding any type of pressure. Strict regulations have been issued to avoid any coercion.

● We have barely enough to meet our personal needs.

□ But we have more than those who must seek help to survive. By making a small contribution each pay period, we can painlessly support those who critically need vital health and welfare services.

The committee adds:

"None of us has gotten where we are in life without encouragement and help along the way. Now that we are successful, we should feel a responsibility to help others less fortunate." □

Free Concert at Clinical Center Opens CFC



A free concert of symphonies and marches will be open to all NIH employees, their families, and NIH patients on Wednesday, Oct. 19, at 8 p.m. in Masur Auditorium.

The distinguished National Concert Band of America will perform to celebrate the opening of the NIH Combined Federal Campaign, according to Ed Wellner, DRS Biomedical and Engineering Branch, who arranged the concert for NIH.

Most of the musicians are former members of the major bands of the U.S. Army, Navy, Marines, and Air Force. The conductor is Edmond E. DeMattia, former principal oboist and soloist of the U.S. Navy Band.

A CFC film will be shown during the evening, and CFC facts and pledge cards will be available.

For more information about the concert, please call Ed Wellner at 496-5195. □



Festive CFC Kickoff Offers Prizes, Food, Fun

As an added attraction to this year's Combined Federal Campaign (CFC) kickoff event—a foot race—spectators will be given free chances for a drawing of prizes.

Donated by the NIH Recreation and Welfare Association, prizes will include a trip to Atlantic City, two tickets each to the musical "Evita" and to games of the Washington Capitals and Washington Bullets, and other prizes.

Festivities will begin at noon on Monday, Oct. 17 in front of Bldg. 1.

Concessions will be available for those who wish to purchase lunch foods.

All NIH employees and their guests are invited to attend. □

Visiting Scientists Program

(Sponsored by the Fogarty International Center)

8/11—**Dr. Yoshitaka Taguchi**, Japan. Sponsor: Dr. Marvin Reitz, Laboratory of Tumor Cell Biology, NCI, Bg. 37, Rm. 6C09.

8/21—**Dr. Marta E. Monzon**, Argentina. Sponsor: Dr. Maneth Gravelle, Infectious Diseases Branch, NINCDS, Bg. 36, Rm. 5C18.

8/21—**Dr. Schmuell Rozenblatt**, Israel. Sponsor: Dr. Robert Lazzarini, Laboratory of Molecular Genetics, NINCDS, Bg. 36, Rm. 4A05.

8/21—**Dr. Peter C. Wynn**, Australia. Sponsor: Dr. Kevin J. Catt, Endocrinology and Reproduction Research Branch, NICHD, Bg. 10, Rm. 8C404.

8/22—**Dr. Regina Brigelius**, Germany. Sponsor: Dr. John Bend, Laboratory of Pharmacology, NIEHS, Research Triangle Park, N.C.

8/22—**Dr. Behrooz Kamgar-Parsi**, Iran. Sponsor: Dr. Richard Shrager, Laboratory of Applied Studies, DCRT, Bg. 12A, Rm. 2041.

8/23—**Dr. Timothy A. Bird**, England. Sponsor: Dr. Beverly Peterkofsky, Laboratory of Biochemistry, NCI, Bg. 37, Rm. 4C15.

8/23—**Dr. Shunsuke Ishii**, Japan. Sponsor: Dr. Ira Pastan, Laboratory of Molecular Biology, NCI, Bg. 37, Rm. 4B27.

8/23—**Dr. Roger Nolan**, Australia. Sponsor: Dr. Thomas Eling, Laboratory of Pulmonary Function and Toxicology, NIEHS, Research Triangle Park, N.C.

8/24—**Dr. Laud K. N. Okine**, Ghana. Sponsor: Dr. Theodore Gram, Laboratory of Cellular and Molecular Biology, NCI, Bg. 37, Rm. 6D28.

8/29 **Dr. Burhan Ghanayem**, Jordan. Sponsor: Dr. H. B. Matthews, Chemical Disposition Section, NIEHS, Research Triangle Park, N.C.

9/1 **Dr. Luigi A. Amaducci**, Italy. Sponsor: Dr. Bruce S. Schoenberg, Neuroepidemiology Section, NINCDS, Federal Bg., Rm. 804.

9/1 **Dr. Adriaan Bax**, The Netherlands. Sponsor: Dr. Edwin Becker, Laboratory of Chemical Physics, NIADDK, Bg. 2, Rm. B1-04A.

9/1 **Dr. Diego Breviario**, Italy. Sponsor: Dr. George Khoury, Laboratory of Molecular Virology, NCI, Bg. 41, Rm. 200.

9/1 **Dr. Soo-Chen Cheng**, Taiwan. Sponsor: Dr. George Khoury, Laboratory of Molecular Virology, NCI, Bg. 41, Rm. 200.

9/1 **Dr. Pieter J. de Jong**, The Netherlands. Sponsor: Dr. Barry Glickman, Laboratory of Molecular Genetics, NIEHS, Research Triangle Park, N.C.

9/1 **Dr. Ofer Eidelman**, Israel. Sponsor: Dr. Robert Blumenthal, NCI, Laboratory of Tumor Immunology and Biology, Bg. 10, Rm. 4B52.

9/1 **Dr. Seymour Glick**, U.S. Sponsor: Dr. Jesse Roth, Diabetes Branch, NIADDK, Bg. 10, Rm. 8S243.

9/1 **Dr. Nabil I. Guirguis**, Egypt. Sponsor: Dr. John B. Robbins, Microbiology Unit, NICHD, Bg. 6, Rm. 416.

9/1 **Dr. Antti Hervonen**, Finland. Sponsor: Dr. Stanley Rapoport, Laboratory of Neurosciences, NIA, GRC, Baltimore, Md.

9/1 **Dr. Peter Kerekes**, Hungary. Sponsor: Dr. Arnold Bossi, Laboratory of Chemistry, NIADDK, Bg. 4, Rm. 135.

9/1 **Dr. Takumi Koyama**, Japan. Sponsor: Dr. George Vande Woude, Laboratory of Molecular Oncology, NCI, FCRF, Bg. 560, Frederick, Md.

9/1 **Dr. Peter Lelkes**, Israel. Sponsor: Dr. Harvey Pollard, Laboratory of Cell Biology and Genetics, NIADDK, Bg. 4, Rm. 312.

9/1 **Dr. Alberto G. Luini**, Italy. Sponsor: Dr. Julius Axelrod, Laboratory of Clinical Science, NIMH, Bg. 10, Rm. 2D47.

9/1 **Dr. Kenjiro Maginu**, Japan. Sponsor: Dr. John Rinzal, Mathematical Research Branch, NIADDK, Bg. 31, Rm. 4B54A.

9/1 **Dr. Manabu Sakakibara**, Japan. Sponsor: Dr. Daniel L. Alkon, Laboratory of Biophysics, NINCDS, Woods Hole, MA.

9/1 **Dr. Mitsuaki Mitani**, Japan. Sponsor: Dr. Maria L. Dufau, Endocrinology and Reproduction Research Branch, NICHD, Bg. 10, Rm. 8C408.

9/1 **Dr. Christopher Paddon**, United Kingdom. Sponsor: Dr. Robert Simpson, Laboratory of Cellular and Developmental Biology, NIADDK, Bg. 6, Rm. B1-28.

9/1 **Dr. Clive H. Orchard**, England. Sponsor: Dr. Edward Lakatta, Clinical Pathology Branch, NIA, GRC, Baltimore, Md.

9/1 **Dr. Robert Pirker**, Austria. Sponsor: Dr. Ira Pastan, Laboratory of Molecular Biology, NCI, Bg. 37, Rm. 4B27.

9/1 **Dr. Nicoletta Sacchi**, Italy. Sponsor: Dr. E. Premkumar Reddy, Laboratory of Cellular and Molecular Biology, NCI, Bg. 37, Rm. 1D15.

9/1 **Dr. Chiaki Setoyama**, Japan. Sponsor: Dr. Benoit de Crombrughe, Gene Regulation Section, NCI, Bg. 37, Rm. 2D20.

9/1 **Dr. Yutaka Takagaki**, Japan. Sponsor: Dr. Henry Metzger, Arthritis and Rheumatism Branch, NIADDK, Bg. 10, Rm. 9N206.

9/4 **Dr. Surachai Suthasinekul**, Thailand. Sponsor: Dr. George R. Thoma, Communications Engineering Branch, NLM, Bg. 38A, Rm. 10S1008.

9/6 **Dr. Gyorgy Bardos**, Hungary. Sponsor: Dr. Bernard Engel, Laboratory of Behavioral Sciences, NIA, GRC, Baltimore, Md.

9/6 **Dr. Adrian J. L. Clark**, United Kingdom. Sponsor: Dr. Ira Pastan, Laboratory of Molecular Biology, NCI, Bg. 37, Rm. 4B27.

9/6 **Dr. Sergio H. Duenas-Jimenez**, Mexico. Sponsor: Dr. Gerald Loeb, Laboratory of Neural Control, NINCDS, Bg. 36, Rm. 5A29.

9/6 **Dr. David Gershon**, Israel. Sponsor: Dr. George Martin, Laboratory of Developmental Biology and Anomalies, NIDR, Bg. 30, Rm. 416.

9/6 **Dr. Victor Hng-Hang Goh**, Singapore. Sponsor: Dr. Lynn Loriaux, Developmental Endocrinology Branch, NICHD, Bg. 10, Rm. 10B09.

9/6 **Dr. Arie Shteyer**, Israel. Sponsor: Dr. Bruce J. Baum, Clinical Investigations and Patient Care Branch, NIDR, Bg. 10, Rm. 2B01.

9/7 **Dr. Paolo Prato**, Italy. Sponsor: Dr. Theodor Kolobow, Laboratory of Technical Development, NHLBI, Bg. 10, Rm. 5D15.

9/8 **Dr. Ruth F. Jarrett**, United Kingdom. Sponsor: Dr. P. S. Sarin, Laboratory of Tumor Cell Biology, NCI, Bg. 37, Rm. 6A17.

9/8 **Dr. Carlos B. Orozco**, Mexico. Sponsor: Dr. Stanley I. Rapoport, Laboratory of Neurosciences, NIA, GRC, Baltimore, Md.

9/9 **Dr. Massimiliano Coletta**, Italy. Sponsor: Dr. William Eaton, Laboratory of Chemical Physics, NIADDK, Bg. 2, Rm. B1-04A.

9/9 **Dr. Andrezej W. Ziemba**, Poland. Sponsor: Dr. Reubin Andres, Metabolism Section, NIA, GRC, Baltimore, Md.

9/12 **Dr. Takako Anjo**, Japan. Sponsor: Dr. Larry K. Keefer, Laboratory of Comparative Carcinogenesis, NCI, FCRF, Bg. 538, Rm. 205E.

9/12 **Dr. Laszlo Dorgai**, Hungary. Sponsor: Dr. Robert Weisberg, Laboratory of Molecular Genetics, NICHD, Bg. 6, Rm. 339.

9/12 **Dr. James Dooley**, United Kingdom. Sponsor: Dr. E. Anthony Jones, Liver Disease Section, NIADDK, Bg. 10, Rm. 4D52.

9/12 **Dr. Ersebet Jonas**, Japan. Sponsor: Dr. Igor B. Dawid, Laboratory of Molecular Genetics, NICHD, Bg. 6, Rm. 408.

9/12 **Dr. Toru Masui**, Japan. Sponsor: Dr. John Lechner, Laboratory of Pharmacology, NCI, Bg. 37, Rm. 2C25.

9/12 **Dr. Osamu Nakagomi**, Japan. Sponsor: Dr. Albert Z. Kapikian, Laboratory of Infectious Diseases, NIAID, Bg. 7, Rm. 103.

9/12 **Dr. Shori Takahashi**, Japan. Sponsor: Dr. Janice Chou, Human Genetics Branch, NICHD, Bg. 6, Rm. 128.

TRANSPLANTS

(Continued from Page 1)

gans be sold to patients for transplantation. They passed a resolution, as follows:

"This steering committee expresses to the interim president (Dr. Friedlaender) its concern that the sale of human organs is not to the benefit of the voluntary system that has been working so effectively in this country."

The U.S. Department of Health and Human Services invited major national organizations and experts in organ procurement to meet as the steering committee. The formation of ACT fulfills the Department's commitment to help organize a program led by the private sector to deal with problems posed by advances in transplant technology. Surgeon General C. Everett Koop presided.

Increase Availability

ACT's goal is to increase the availability of organs and tissues for transplantation through postmortem donation and surgical procurement. Major objectives are:

- to motivate the public to voluntarily donate organs and tissues for transplantation.
- to improve donor identification and referral to organ procurement programs by health professionals.
- to promote the effective use of multiple organs and tissues.
- to ensure equitable access to available organs.

In addition to Dr. Friedlaender, interim officers include:

Dr. Oscar Salvatierra, a transplant surgeon at the University of California, San Francisco, vice president; Dr. William B. Kerr, director of the University of California Hospitals and Clinics, San Francisco, secretary; Amy Peele, R.N., senior transplant coordinator, Rush-Presbyterian-St. Luke's Medical Center, Chicago, treasurer, and Donald Denny, director of Organ Procurement, University of Pittsburgh School of Medicine, member-at-large of the executive committee of officers. □

Dr. P. Modrich, NIGMS Grantee, Given Pfizer Chemistry Award

Dr. Paul Modrich, associate professor of biochemistry at Duke University and a long-time grantee of the National Institute of General Medical Sciences, recently received the 1983 Pfizer Award in Enzyme Chemistry for his work on the mechanism of action of the EcoRI restriction-modification enzymes of *E. coli*.

Established in 1945, the award is administered by the Division of Biological Chemistry of the American Chemical Society and consists of a gold medal and a \$2,000 honorarium.

Dr. Modrich received his bachelor's degree at MIT, and his Ph.D. at Stanford. In previous recognition of his potential and achievements, he has been given an NIH Research Career Development Award and a Dreyfus Teacher-Scholar Award. □

If your spirits are low, do something; if you have been doing something, do something different.—E. E. Hall □

Homosexuals' Predisposition To AIDS, Possible Causes To Be Studied Under Five New NIAID, NCI Contracts

Five institutions will study the epidemiology of AIDS in homosexual men under contracts awarded Sept. 30 by the National Institute of Allergy and Infectious Diseases in conjunction with the National Cancer Institute.

Total cost of the 4-year project will be \$15,326,703, with most of the first year funding coming from the \$12 million FY 83 supplemental appropriation for AIDS research.

Participating institutions are the School of Public Health, University of California at Los Angeles; the School of Public Health, University of California at Berkeley; Howard Brown Memorial Clinic, Chicago; Graduate School of Public Health, University of Pittsburgh; and Johns Hopkins University, Baltimore.

AIDS is a complex disease characterized by defects in the victims' immune systems which result in a variety of rare illnesses. More than 2,200 cases of AIDS have been reported, primarily among homosexual or bisexual men with multiple sex partners, intravenous drug abusers, Haitians recently arrived in the United States, and hemophiliacs. A small number of cases have also developed in persons whose only apparent source of disease has been through blood transfusions.

Although the cause of AIDS is unknown, scientists think that it may be due to an agent

transmitted by sexual contact and perhaps by transfer of body fluids such as blood.

A large epidemiologic study will help define the factors that predispose homosexuals and others to AIDS, as well as provide materials that can be used to test theories about possible causes.

All five contracts call for long-term followup of large numbers of currently healthy homosexual males at risk of developing AIDS.

Information obtained by regular physical examinations, collection of blood specimens and other body fluids, and detailed histories will be assembled in a national repository to be coordinated by NIAID.

The repository will provide scientists throughout the country with data and specimens that can be used in future studies on AIDS.

The institutions participating in the study are located in geographic areas that, currently, represent a wide range of risk for AIDS.

Both California contractors are in areas reporting relatively high numbers of AIDS cases and where many new cases are likely to occur. The study at the UCLA School of Public Health will be coordinated by Dr. Roger Detels, head of the division of epidemiology and dean of the school. Dr. Warren

Winkelstein, professor of epidemiology, will head the study at the University of California at Berkeley.

The third contractor is the Howard Brown Memorial Clinic in Chicago, one of the largest sexually transmitted diseases clinics in the nation. The number of AIDS cases in Chicago has been relatively low, but seems to be increasing.

The principal investigator for the study is Dr. David Ostrow, research director of the clinic and assistant professor of psychiatry and behavior at Northwestern.

The remaining contractors are in cities that presently have low rates of AIDS. At the University of Pittsburgh, scientists headed by Dr. Charles R. Rinaldo, Jr., assistant professor of clinical pathology and assistant director of clinical microbiology, will screen several thousand male homosexuals.

On the basis of initial questionnaires covering such things as medical history and sexual activity, about 1,500 men will be selected for more extensive evaluation over a 30-month period.

In Baltimore, at Johns Hopkins University, Dr. B. Frank Polk, an internist trained in infectious diseases and epidemiology, will head a similar study recruiting approximately 1,000 male homosexuals for long-term followup. □

Dr. Murray Shear Dies; Father of Chemotherapy

Dr. Murray J. Shear, 83, a biochemist whose study of the relationship between chemicals and cancer helped advance chemotherapy as a treatment for the disease, died Sept. 27 at Suburban Hospital. He had Parkinson's disease.

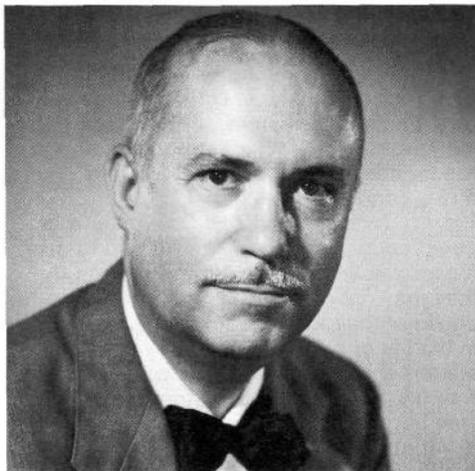
Dr. Shear, a resident of Bethesda, worked for the National Cancer Institute for 30 years before retiring in 1969. He was laboratory chief of chemical pharmacology from 1951 to 1964. Colleagues called him "the father of chemotherapy."

He was a past president of the American Association for Cancer Research and a former secretary general of the International Union Against Cancer. He also served as chairman of the International Union's chemotherapy committee.

In his search to control cancer, Dr. Shear said that history and knowledge from disciplines other than medicine should be examined. His particular interest was in chemistry, which, he believed, could add to the existing techniques of radiation and surgery. He went so far as to track down old wives' tales.

"Most of them are rubbish and the pathetic stirrings of superstitious peoples," he said in 1957. But he maintained that the effort was worthwhile because "every nation, color, creed and culture suffers from cancer. The ancient Chinese, the Greeks and Romans, the Egyptians of the pyramid era and the Assyrians had it. . . . we hope some old-home remedy may provide a clue to curing cancer."

During the 1940s, he and his associates turned up 100 chemicals that could cripple



Dr. Shear

cancer cells in mice.

They spent years testing those chemicals to find out which could destroy tumors without harming normal tissue. Today chemotherapy is one of the standard ways to treat cancer in humans.

Dr. Shear began his cancer research more than 50 years ago as a biochemist with the U.S. Public Health Service working with the Harvard Medical School. In 1939, he moved here and joined the National Institutes of Health.

During World War II, he worked on the development of a vaccine for typhus, and is considered to have played a crucial role in the success of that work.

He was born in Brooklyn, N.Y. He earned a bachelor's degree in chemistry at the City College of New York and took master's and doctoral degrees at Columbia University. He

taught at Columbia and worked at the Jewish Hospital in Brooklyn before joining the Public Health Service.

Survivors include his wife, Rose, of Bethesda; three sons, David Ben of Columbia, Md., Jonathan of Richmond, and Victor Henry of Lafayette, Calif.; a brother, Nathaniel of Silver Spring; two sisters, Ada Meiselman of Brooklyn, and Helen Warm of St. Petersburg, Fla., and three grandchildren.

Basic Needlepoint Classes Scheduled

A basic needlepoint class in which you will learn the basics of needlepoint stitches, types of canvas, threads, needles, and other items to be utilized, will be held in the Westwood Bldg., Conf. Rm. D, Monday evenings beginning Oct. 17 and continuing through Nov. 21.

This class will start beginners in the world of stitching and will help intermediate stitchers solve problems they might have with stitches or a project.

Classes will be held from 7 to 9 p.m. and cost for this 6 week session is \$20. Sign up at the R&W Desk in Bldg. 31, or the Westwood R&W Gift Shop, Rm. 10. □

NIH Ski Club Meets Oct. 13

The NIH R&W Ski Club preseason meeting will be held on Thursday, Oct. 13, at 7 p.m., in the Bldg. 10 cafeteria.

Trips to Mont Tremblant, Canada, and Greek Peak, N.Y., have been planned and details will be announced at this meeting. Weekend and day trips are also being planned.

All skiers—downhill and cross-country—are welcome to attend. □

Camp Fantastic — A

Three of these classes were held throughout the day, in addition to the two afternoon recreation periods where the campers swam, rode horses (this year's favorite activity), played softball or visited area attractions, such as the Skyline Caverns. Each night after dinner the campers sang and played games around a campfire.

The week's most memorable event, the campers agreed, was Wednesday night's talent show. Performances included skits by the campers, a rendition of Barry Manilow's "I Write the Song," and a beauty contest among the camp's most attractive men, dressed as women. One group of campers composed the first Camp Fantastic theme song:

*Camp Fantastic is a wonderful place
It helps me get rid of my cancer case
I can't wait to see the look on my
doctor's face
When I tell him all about this wonderful
place*



Welcomed by Special Love, Inc., the Cherokee, Shawnee, Potomac and Catawba tribes line up for chow in front of the camp dining hall.

♦"Totally awesome." Using this phrase rooted in Southern California's Valley cult, a young man described his experience at a summer camp in Front Royal, Va. Continues camper "Stormin'" Norman Wilson, "This place shouldn't be named Camp Fantastic—it should be named Camp FUNtastic!"

For the most part, the young people at Camp Fantastic were like campers everywhere. They got mosquito bites, pulled pranks on their counselors and complained about camp food. But unlike other campers, these kids have cancer.

The combined efforts of the nonprofit, fund-raising organization Special Love, Inc., the Northern Virginia 4-H Educational Center [4-H Club] and the National Cancer Institute resulted in a week-long outing for 30 pediatric cancer patients. The camp is the first of its kind to serve the Washington, D.C. area, and one of only a few camps for children with cancer in the country.

On Saturday, Aug. 27, the last camper reluctantly boarded the bus home. Tom Baker, Special Love, Inc. president and camp founder, said, "Before the camp started, if I had written down what I hoped would happen during the week, I couldn't have come any closer than what actually happened. The camp has been a tremendous success."

Baker, a Winchester, Va., real estate developer, and his wife, Sheila, became interested in starting a camp for children with cancer after their own daughter died of lymphoma 7 years ago.

"Ever since that experience," said Baker, "we've been very conscious of childhood cancers. One day I read a magazine article about a camp for kids with cancer in New York state, and I just couldn't get the idea out of my mind. Last year my wife and I visited that camp, came home and immediately began working on Camp Fantastic."

At the same time, John Dooley, the Northern Virginia 4-H Educational Center director, was thinking about a camp for special children. "I had originally been planning a camp for physically handicapped children, when Tom [Baker] arrived at my doorstep with the

idea for Camp Fantastic," said Dooley.

Baker then teamed up with Dr. Philip Pizzo, chief of NCI's Pediatric Branch and Kathy Russell of the Clinical Oncology Branch, who served as administrative coordinator for the camp. After slightly over a year of planning and hard work, on Sunday, Aug. 21, Camp Fantastic opened its arms to the young campers.

In Front Royal, the 229-acre camp stretches across the foothill country of the Blue Ridge Mountains. On its rolling meadows are residence halls, a dining and meeting hall, a large swimming pool, an archery range, stables, a softball field, tennis courts and a canoe pond.

Andy Tartler, an NIH social worker and camp counselor, said, "We wanted to give these kids an opportunity to do things that they may not otherwise be able to do because of their illness." And so, a typical day in the life of a Camp Fantastic resident started at 7:15 a.m. By 9 o'clock breakfast was finished and the first structured class-time begun. Here the campers chose classes in various crafts, songs, dance, photography or other hobbies taught by experienced counselors.



Nicole Cangemi, sporting "T. Bear," the NCI Pediatric Branch mascot, carefully sights the bull's eye.



Chrissy Byram, Randy Schools of R&W, and Latrice... swimming pool which is nestled among 229 acres

Despite the casual surroundings of the camp, the campers were never far from medical supervision. Doctors and nurses, part of a team from the NCI Pediatric Branch, were on hand around the clock to give pills and perform blood tests. They were also conducting an NIH-approved study to evaluate the benefits the young cancer patients received from attending the camp.

As part of the study, both the campers and their parents were interviewed by a psychologist and answered written questionnaires before and after the week at camp.

These tests, designed to determine the child's body image, aspirations, the nature of family relationships and attitudes toward the

'Funtastic' Success

camp, will be compared with future surveys to be completed in 3 months and again at 6 months.

Dr. James Miser, a NCI Pediatric Branch physician and a part-time camp doctor, said, "There's no doubt that the major goal of Camp Fantastic was for the kids to have fun. But the camp also gave both the campers and physicians the chance to escape the doctor-patient role and to interact with each other as people."

Dr. Marcia Browne, another member of the Camp Fantastic medical team, agreed with Miser. "I think it's very healthy for all of us to be able to interact in a way other than with the physician in the authoritarian role," she said.

"For example, I can't ride a horse very well and many of the kids can. It was good for them to see that doctors don't know everything. It made the patients feel more equal and the doctors seem more human. We hope



Campers are treated to a beef barbecue. In the foreground, from left to right, are Jeffery Perkins (behind hat), Jeff Quelet, Dr. Marcia Browne, Katie McConn and Tamara Enoch.

filed from Camp Fantastic, too, said Margie Quelet, mother of 11-year-old Jeff. Just last June, doctors found that a lump in Jeff's leg was cancerous.

"I needed that week," said Mrs. Quelet. "I didn't realize how much I had pent-up. During the time Jeff was at camp, I dealt with a lot of things that had been building up inside me. When Jeff came home, I felt a lot better, and I think he did, too."

Jeff's surgery left him using crutches. When Jeff returned from camp, he was willing to try, for the first time, walking without them. Mrs. Quelet thinks the example set by the other campers gave him the encouragement he needed.

Was Jeff homesick? "Not that I can tell," said Mrs. Quelet. "He goes on and on about Camp Fantastic and sings all the camp songs at every meal. I haven't heard him say one negative thing, except about the powdered milk. He's already made me mark that week down on the calendar for next year."

Betsy McConn, mother of 11-year-old Katie, echoed those words. "Katie had nothing bad to say about the camp except that she had to come home. She's already decided she's going back next year," said Mrs. McConn.

The week-long camp, operating at a total expense of about \$11,000, cost about \$275 per camper. Most of the cost was covered by donations to Special Love, Inc., including large contributions from the Winchester Rotary Club, Maryland Units of the American Cancer Society and the Modeling Moppets. In July, Recreation and Welfare, Inc. sponsored Camp Fantastic week at NIH which also raised a sizeable contribution. Each camper was asked to contribute \$25.

One of the most valuable donations, said Camp Fantastic director Baker, was the time and enthusiasm offered by the 4-H counselors, full-time summer employees of the camp who volunteered their time to Camp Fantastic. "It's amazing the way everybody, NIH staff, 4-H volunteers, and adult volunteers, were able to come together and provide such a great time for these campers," he said.

Learning from the first Camp Fantastic, 4-H camp director John Dooley said some changes will be made in next year's program, already being planned. "The kids came here so excited and played so hard," he said, "the most significant change we'll make for next year's camp will be to include a definite nap time."

—Leslie Fink □

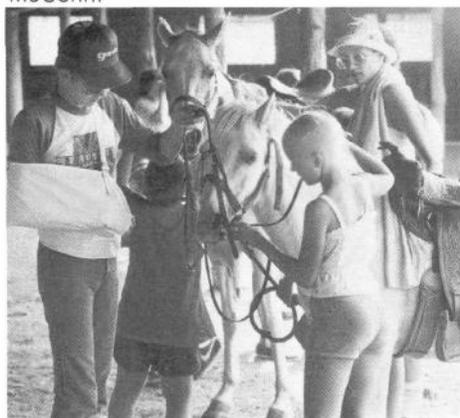


The Hallums enjoy a refreshing dip in the camp of rolling hills.

to be able to carry these feelings back to the clinic."

Besides improving relations with their physicians, nurses and other health workers, the camp staff hoped that the campers—many of them away from home for the first time—would gain confidence in themselves. "Cancer treatment often causes children to become dependent upon doctors and parents," said Miser. "And parents often become overprotective of their children. Our ultimate goal in treating these kids is to cure their cancer and send them on to live normal lives. This camp, we hope, will help prepare them for that."

Parents, even while staying home, bene-



Horseback riding was one of this year's favorite activities. Here (l to r) John Neitzky, Mark Kirby, Wendy Conner and DeeDee Seaman saddle up their steeds for an afternoon ride.



Taking time out for a quiet activity, 4-H staff counselor Tracy Rosazza (r) teaches Challie Dunn painting skills.

Quality Circles Help Solve Job Problems at DES

The Division of Engineering Services that started the concept of Quality Circles (story on page 2 of the Aug. 30 *NIH Record*) have four QCs plus a steering committee.

A Quality Circle is a small group of employees, generally from the same work area, who volunteer to meet regularly on agency time to identify, analyze, and solve work-related problems. QC members receive special training in problem-solving techniques and group dynamics.

Below are photographs of the four QCs, one each in the power plant section, shop stores, electric shop, and the Clinical Center maintenance section.



Shop Stores Section (PCB)

Front row (l to r): Doris McKenney, William Mautz, Jean Coshun, Lee McKinney. Back row (l to r): Sheri Lawson, Bill Garrett, Jack Volpe, Ron Washington, Randy Hendricks.



Power Plant Section (MEB)

Front row (l to r): James Wright, Melvin Gutermuth, Thomas Bennington, Pete Baum (chief). Center row (l to r): Kerry Keesee, Daniel Hinton, John O'Brien. Back row (l to r): Jerome Best, James Layman, Randy West. Not pictured: Buddy Klassett, Fredrico Broom.



Clinical Center Maintenance Section (MEB)

Front row (l to r): Ben Waldenmaier, William Burt, Gus Lambis, Ken Waddell, Loretta Roberts. Back row (l to r): John Shands, Mark Morine, Frank Kelly, Nathan Adams. Not pictured: Don Spence, Paul Hawver.



Electric Shop, Shops Branch

Front row (l to r): Albert Parrish, Conrad Farina, Ronald Whittington, George Mason, Charles Taylor. Back row (l to r): Daniel Fishback, Bradford Brown, Michael Lanouette, Charles Strine, George Fitzwater, John Hollingsworth.

NEURORECEPTOR

(Continued from Page 1)

"But a lot of changes can occur at or after death," Dr. Kuhar said, "so the results of postmortem studies aren't always reliable. Being able to image receptors in a living person opens up other possibilities. It will enable physicians to study the receptors during the course of a disease or while a patient is receiving drug therapy."

For instance, it now may be feasible to assess in humans the role of dopamine receptors in the action of numerous mind-altering drugs and disorders such as schizophrenia, Parkinson's disease, and Huntington's disease.

Neurotransmitters, such as dopamine, are chemicals that send messages from one nerve cell to another or from nerve cells to glands, allowing nerves to communicate with each other and with the rest of the body.

After being released by one cell, a neurotransmitter molecule binds in lock-and-key fashion to a specific neuroreceptor on another cell, eliciting a response there.

Dopamine receptors also are important to the activity of drugs used to treat schizophrenia and Tourette's syndrome, the latter a disease that causes uncontrollable body movements and foul language.

Further benefits should follow PET visualization of other receptors. Seeing H2 histamine receptors should provide a better understanding of the activity of the largest selling prescription drug in the United States, the ulcer drug Tagamet®. And seeing beta-adrenergic receptors should help in understanding the second most widely used prescription drug, propranolol, taken for heart disease and high blood pressure.

The Hopkins investigators plan to use PET scans soon to view opiate receptors in the human brain. They already have radio-labelled chemicals that bind to these receptors involved in drug addiction and control of pain.

Coauthors of the *Science* article, in addition to Drs. Wagner, Burns, Dannals, and Kuhar, were Drs. Dean F. Wong, Bengt Langstrom, Timothy Duelfer, J. James Frost, Hayden T. Ravert, Jonathan M. Links, Shelley B. Rosenbloom, Scott E. Lukas, and Alfred V. Kramer.

(For more information, call Stephen Push or Deborah Digges at (301) 955-6680.) □

Conference on the Cytomatrix To Be Held Oct. 17-20

The Fogarty International Center is sponsoring a 3-day symposium on the cytoplasmic matrix and the integration of cellular function, which will be held at the Holiday Inn in Bethesda beginning at 7 p.m. on Monday evening, Oct. 17.

The conference has been organized by Dr. Keith Porter, a Fogarty Scholar-in-Residence, who has made numerous contributions to modern cell biology and is one of its founders. The organizing committee includes Drs. James Clegg, John Condeelis, Alice Fulton, Kenneth Johnson, and Mark Stearns.

The recent history of cell biology has witnessed a great accumulation of information on the morphology and molecular biology of such cell components as chromosomes, mitochondria, ribosomes, and lysosomes, as well as the filamentous elements of the cytoskeleton.

However, in the same period, far less attention has been given to studies on the integration of these cell components into a functioning cell.

Problems to be discussed at the conference include: how are the various cell components tied together; what determines their nonrandom organized distribution in the cell; how are they given directed motion; how do they contribute to the variety of forms which cells show; is there an information-rich

ground substance or matrix in the cytoplasm which is structured and possibly involved in these several attributes of cells?

These questions are being studied from several approaches. In addition to exploring the filamentous structures that comprise the cytoskeleton, investigators are looking at their associated proteins.

It is being discovered that enzymes of the glycolytic pathway are structure-bound; the distribution and characteristics of bulk water are being examined as never before; fluorescein-labeled antibodies are helping in identifying and localizing components heretofore scarcely known and high voltage microscopy permits the study of the three-dimensional fine structure.

All in all, the findings are impressive in suggesting the existence of a structured matrix which has the form and other characteristics of a gel.

It is anticipated that these recent advances will be of great interest and significance not only in specifying the shape and motility characteristics of cell components, but also in the organization of metabolic and bioenergetic activities of cells.

Members of the NIH community and other interested individuals are cordially invited to attend. For further information and preregistration, write to the International Studies Branch, FIC, Bldg. 16A, or call 496-2517. □

Harvard Medical Director To Talk on El Salvador

An on-campus talk by Dr. Robert Lawrence, director of the Division of Primary Care at Harvard University Medical School, will be sponsored by FAES and the NIH Amnesty International Letter Writing Group.

Dr. Lawrence, co-author of a report on a recent medical fact-finding mission to El Salvador, will speak on Wednesday, Oct. 19, at 12:30 p.m. in the ACRF amphitheatre in Bldg. 10.

Since receiving his M.D. from Harvard Medical School in 1964, Dr. Lawrence's career has included assistant professorships at the University of North Carolina School of Medicine and the Harvard Medical School. He has served as a physician and administrator at North Carolina Memorial Hospital and Beth Israel Hospital in Massachusetts.

Dr. Lawrence was medical epidemiologist at the Central America Malaria Research Station in San Salvador, El Salvador from 1967 to 1969. In 1973 he was a consultant for the Agency for International Development's U.S. Mission to El Salvador. Dr. Lawrence returned to El Salvador in 1982 on a fact-finding mission for several medical and scientific organizations.

The NIH Library in Bldg. 10 will feature a display on the Nobel Prize winning non-political organization which seeks to protect human rights and works on the behalf of "prisoners of conscience" throughout the world.

At NIH, an official Amnesty International Urgent Action Letter-Writing group meets weekly. If interested, contact Pat McKinley (496-9285) or Genevieve Schiffman (496-1156) for further information. □

Better Whooping Cough Vaccine Target of NIAID Contract Funding

The National Institute of Allergy and Infectious Diseases has announced funding to develop an improved vaccine to prevent pertussis, or whooping cough.

A 3-year contract totaling \$458,674 has been awarded to the Michigan Department of Public Health in Lansing, a licensed vaccine manufacturer. Heading the project is Dr. Chun-Nan Shih, chief of the bacterial vaccines section in the department's division of vaccine production.

Whooping cough is a serious childhood disease caused by a bacterium called *Bordetella pertussis*. A vaccine made from the whole organism was developed in the 1940s. It is routinely combined in a diphtheria-pertussis-tetanus (DPT) vaccine and administered to infants in three doses, one month apart.

Before the present vaccine was available, the disease affected as many as 265,000 children and was responsible for about 7,000 deaths each year in the United States. Use of the vaccine has cut the annual United States case load to between 1,000 and 3,000 cases. Only 5 to 20 cases result in death.

Although the vaccine has been effective in protecting children from pertussis, it can also produce undesirable side effects. Local and mild reactions (such as fever, pain and swelling) occur frequently. Rarely, more serious reactions occur.

In recent years, investigators have identified specific protein components in *B. pertussis* that show promise for use in a new, safer vaccine. The NIAID contract calls for purifying these proteins and using them to prepare an acellular vaccine, one that is made not from the whole bacterium, but only from those proteins that stimulate immunity.

After this vaccine is thoroughly tested for safety and effectiveness, it will be combined with diphtheria and tetanus vaccines in a new DPT vaccine. The new vaccine will probably be ready for testing in humans in about 3 to 4 years. □

Ann Brawn, Ex-Employee, Dies While on Vacation

Anna Mary (Ann) Brawn, 61, of Bethesda, died suddenly on Thursday, Aug. 25, while vacationing in Florida with her family.

Mrs. Brawn, a Government employee for over 30 years, left the National Institute of General Medical Sciences in 1975 and joined the Bureau of Medical Services from which she retired in 1982.

Mrs. Brawn is remembered for her work with the Tall Cedars of Lebanon in North America, Montgomery Forest #134 and the Montgomery Cedarettes in raising funds to fight Muscular Dystrophy.

She is survived by her daughter, Judith Ann Catlin and her son, David Dorsey Magruder, both of Gaithersburg; three grandchildren, Sandy and Randy King and Amanda Magruder; one brother, and four sisters.

DAME FELL

(Continued from Page 1)

Strangeways in 1926.

In 1929, Dr. Fell assumed the directorship of the laboratory which was renamed the Strangeways Research Laboratory in honor of its founder. Over the next 40 years, Dr. Fell freed Strangeways from financial strain and established it as a world-renowned center for biomedical research, with major emphasis placed on cartilage and bone biology.

Since retiring as director in 1970, Dame Fell has continued research. Recently, she discovered that cultured synovial tissue releases polypeptide factors which stimulate cartilage cells to deplete their surrounding matrix of proteoglycans, the macromolecules which provide cartilage with its shock absorbing function.

These observations have greatly altered perceptions of how cartilage cells regulate the composition of their surrounding matrix, a critical factor for normal, healthy tissue function.

This work has inspired research in many laboratories, including NIDR, to isolate these factors and determine their mechanisms of action.

Dame Fell holds honorary degrees from Cambridge, Oxford, Harvard, and Leiden, and is a fellow of the Royal Society. She has received a prize from l'Academie Francaise and is also a member of the Royal Netherlands Academy of Science and the Serbian Academy of Sciences. □

A man with a new idea is a crank until the idea succeeds.—Mark Twain □

Job Sharing—A New Concept in Employment Successful in NCI's Molecular Biology Lab

In 1980, Mary Lee Lanigan wanted to return to work, but only on a parttime basis since her children were still in school. Linda Harris, a fulltime secretary in the gene regulation section, Laboratory of Molecular Biology, Division of Cancer Biology & Diagnosis, National Cancer Institute, wanted to add some college courses to her load, but didn't think she could keep her job and study too.

Mary Lee and Linda, friends since junior high school, solved their problem creatively by agreeing to share Linda's NCI job. Mary Lee now works 3 days a week, while Linda works 2 days.

Their boss (at that time), Dr. Benoit de Crombrugge, chief, gene regulation section, was enthusiastic about the plan. He later said, "I have witnessed a very successful example of job sharing. . . . the output and quality of their work has been excellent."

After almost 2 years in the secretarial job, the pair transferred to the position of purchasing agent in the same laboratory. Dr. Ira Pastan, chief of the laboratory, supported the two women and said, "Because of their example, I would not hesitate to hire other support personnel to share a job."

The logistics of job sharing need not be a problem if the two workers can communicate effectively. According to Linda, "Upon arrival at work I display on our Lexitron work processor notes accumulated for me by Mary Lee on the previous day.

"Copies of the previous day's correspondence are then read, as well as any items requiring immediate attention (with her notes attached indicating current status)."

"With the modern communication devices available today, it is possible that two people sharing a secretarial position can be more efficient than one person alone," continued Linda. "Two minds attack problems, make decisions, and devise the systems of operation; 100 percent office coverage can be maintained throughout the entire year," she said.

Job sharing has worked well in the purchasing agent position too, since procurement duties tend to be consecutive in nature. Special problems are set aside to be solved by one of the women, or by both of them working together.

Both Linda and Mary Lee see job sharing as a way of enabling women with children still in school to re-enter the job market. It also lets people pursue outside interests such as college studies.

The benefits of job sharing extend beyond the job sharing partners. One major advantage to the arrangement, applicable to working mothers in general, is that one incumbent, expert in the job, is always available to take over when the other has a sudden emergency at home.

According to Edward E. Nicholas, Jr., director, Division of Personnel Management, NIH has no specific procedure set up for creating shared jobs. "It's up to the individual supervisor to work things out," he said. It's even more likely, however, that prospective job sharers would come to the supervisor with a proposal to change an existing fulltime



Mary Lee (l) and Linda sit at the desk they share as a purchasing agent in NCI's Laboratory of Molecular Biology.

position to a shared one, he added.

Mary Lee and Linda advise people interested in job sharing to choose one's partner with care. Reliability, initiative and neatness are important qualities for making job sharing a success.

Dr. Michael M. Gottesman, chief, molecular cell genetics section, Laboratory of Molecular Biology, NCI, lists some of the factors which led to the women's success:

"(1) Both Mary Lee and Linda are very responsible with respect to their work—and neither puts off work so the job sharing partner feels exploited; (2) they know each other well and can complement each other's areas of interest; (3) both women like each other and communicate well with each other and with their supervisors.

"As a result of these factors, everyone in the laboratory has been very pleased with their joint performance," he continued. "And I sense that both have been more relaxed and satisfied by their work." □

Flu Vaccine Available To Selected NIH Groups

Influenza virus vaccine will be offered to NIH employees who, because of pre-existing conditions, are more susceptible to the disease and to secondary infections. The latter include heart disease, chronic lung diseases, such as bronchitis, emphysema and severe asthma; chronic kidney disease, chronic anemia and diabetes mellitus.

The vaccine will be given by staff members of the Office of Medical Service, Division of Safety, from Oct. 3 through Nov. 30, at two locations: Bldg. 10 (ACRF), 6th floor Clinic from 8 a.m. to midnight and the Westwood Bldg. Health Unit on Wednesdays at 9:30 a.m.

Vaccination against flu is also recommended for persons 65 and over because of a higher mortality rate for influenza victims in that age group. The vaccine will also be available for all employees who perform direct patient care. □

Sentimentality—that's what we call the sentiment we don't share.—*Graham Greene*
□

13-Cis-Retinoic Acid May Aid Arthritis Treatment

13-cis-retinoic acid, a drug used to treat a variety of disorders, may be useful in the treatment of arthritis, according to a recent article in *Science*.

Using an animal model, Dr. Constance E. Brinkerhoff, an NIADDK grantee at the Dartmouth-Hitchcock Medical Center in New Hampshire, demonstrated that oral doses of 13-cis-retinoic acid markedly reduced joint inflammation associated with adjuvant arthritis (AA).

Adjuvant arthritis, seen only in the laboratory rat, resembles human rheumatoid arthritis. In both diseases, there is progressive inflammation of the lining of joints, joint swelling and eventual erosion of cartilage and bone.

Adjuvant arthritis is artificially induced in the animals by injecting adjuvant materials into the skin of the back, tail, foot pad, or lymph node. After 2 weeks, the healthy rat develops arthritis in the joints of the extremities. Adjuvant arthritis is widely used as a model in which to identify and test the usefulness of anti-inflammatory compounds.

Researchers also studied the effect of 13-cis-retinoic acid on the production of collagenase and prostaglandin E₂ (PGE₂) by cells taken from the inflamed joints of the rat and placed in tissue culture. They found that cells from rats with AA treated with the drug had decreased levels of collagenase compared to cells from placebo-treated rats with AA.

This is significant because in rheumatoid arthritis, collagenase and PGE₂ are synthesized and secreted in large quantities by rheumatoid synovial cells (cells that line the joint).

These two compounds are prime mediators of the joint destruction seen in rheumatoid diseases. Until recently, only corticosteroids were known to block the production of collagenase by these cells.

The use of retinoids to treat adjuvant arthritis is a new application for these drugs. In recent years, naturally occurring all-trans-retinoic acid and synthetic 13-cis-retinoic acid have been used to treat a variety of disorders such as cancers in laboratory animals, human tumors, and certain skin diseases, especially severe acne and possibly psoriasis and epidermolysis bullosa.

Dr. Brinkerhoff said that we don't know how the retinoids act on the synovial cells; "We know what they do but not how they do it." She added, "Our ultimate hope is that 13-cis-retinoic acid or other related retinoids will eventually be helpful in treating rheumatoid arthritis. Our purpose is to possibly develop a strong rationale for treating the human disease." □

Diet Center Begins Fall Nutrition Classes

The nutrition series offered at no charge by Diet Center began its fall cycle on Friday, Oct. 7, at 12 noon.

The series runs from 12 noon to 1 p.m. for 6 consecutive Fridays. Employees are welcome to bring their lunch to the classes.

For further information, call R&W, 496-4600. □

Men and Women Differ in Reactions To Drugs But Women's Variations Are Seldom Studied

Sex hormones can significantly affect the way drugs are metabolized by the body, yet dosages and medication schedules for psychoactive and other drugs prescribed for both men and women are based on a greater understanding of male physiology, report Drs. Jean Hamilton and Barbara Parry of the National Institute of Mental Health.

"Many more men than women are included in initial clinical studies," they said, "perhaps in part, because of concerns about drug-testing during childbearing years.

"Perhaps the preponderance of women with adverse drug reactions does not merely reflect sex-related differences in the reporting of symptoms, but also reveals our relative neglect of women's physiology," they note in an article published in the September issue of the *Journal of the American Medical Women's Association*.

It is well-documented that oral contraceptives and prescribed estrogens alter responses to a wide variety of commonly used drugs, including those prescribed for anxiety, depression, epilepsy, diabetes, Parkinson's disease and thyroid problems.

Nevertheless, little thought has been given to how the hormones produced within the body, the endogenous hormones, interact with these medications.

Even studies done with female subjects have generally overlooked the possible variances in drug response due to changes in hormonal levels during the menstrual cycle or after menopause, the intramural scientists contend.

More drugs are prescribed for women than for men and, proportionally, women have more adverse reactions to them. For example, women—particularly those past menopause—may be more vulnerable to tardive dyskinesia, a disorder associated with psychoactive drugs, manifested by uncontrollable movements.

Nevertheless, studies to elucidate drug action—even with animals—are limited for the most part to male subjects precisely to avoid dealing with the effects of the female

hormonal cycle, "often seen as a confounding variable in laboratory experiments," the investigators said.

The journal article, described by Dr. Hamilton as an introduction to "gynecological pharmacology," summarizes research on how prescribed estrogens and birth control pills affect the metabolism, responsivity, and toxicity of major drug groups.

The findings give "evidence for sex-related differences, as well as menstrual and menopausal variations, in a variety of neurochemical systems," and underscore the need for studies on the effect of endogenous hormones, according to the scientists.

To illustrate one fruitful research area, the scientists cite neurochemical clues to possible answers about the preponderance of depression in women.

In fact, Drs. Hamilton and Parry both see their work on the menstrual cycle as pertinent to the question of women and certain subtypes of depression. The investigators presented preliminary findings at a recent American Psychiatric Association "Symposium on Premenstrual Changes."

The need to look at links between hormonal alterations during the menstrual cycle and major depression is borne out by evidence that women with premenstrual syndrome (PMS) more often experience atypical depression—increased rather than diminished appetite, sleep, and sexuality—than do depressed women who do not suffer from PMS.

Also, atypical depression more often responds to a different class of drugs—the MAO inhibitors—than to the tricyclics, which are effective for more typical depressive disorders. Altered hormonal levels in these women may account for the differences in symptoms and suitable medication.

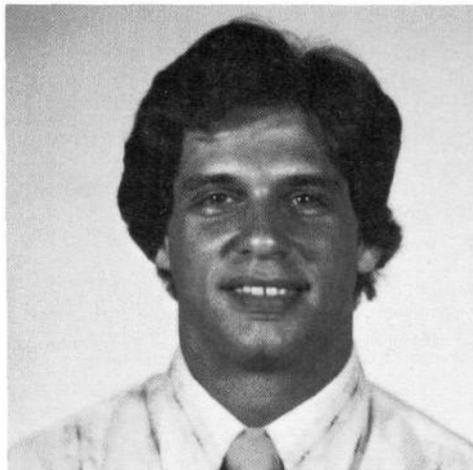
"A systematic examination of sex-related differences in drug responsivity may help to develop a medical science that better pertains to all people, including the more than 50 percent who are female," the scientists concluded. □

Dr. Robert Levine Receives Young Investigator Award

Dr. Robert Levine, PRAT Fellow in the Laboratory of Cell Biology and Genetics, National Institute of Arthritis, Diabetes, and Digestive and Kidney Diseases, recently received one of six "Outstanding Young Investigator in Neurochemistry Awards" from Vector Labs. This competitive travel award allowed Dr. Levine to attend the American Society for Neurochemistry meeting in Honolulu, Hawaii.

Dr. Levine was recognized for his studies on the effects of the chemical neurotoxin, kainic acid, in the central nervous system of the rat. These results, presented at the Honolulu meeting, have helped clarify the controversy over the site of decarboxylation of exogenously administered L-dopa to patients with Parkinson's disease.

The two greatest stimulants in the world are youth and debt.—*Benjamin Disraeli* □

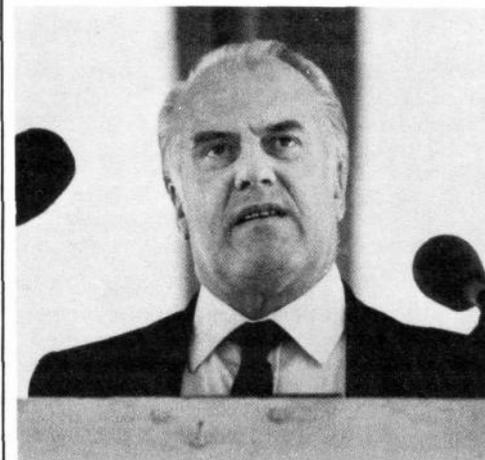


Dr. Levine

Dr. W. Burgdorfer, RML, Delivers Memorial Lecture

Dr. Willy Burgdorfer of the National Institute of Allergy and Infectious Diseases Rocky Mountain Laboratory (RML) recently presented the Samuel W. Johnson Memorial Lecture, "Ticks—An Ever Increasing Public Health Problem."

The lecture is given annually on Plant Science Day to commemorate Prof. Samuel W. Johnson whose work led to the establishment of the Connecticut Agricultural Experimental



Dr. Burgdorfer

Station in 1875, the first institution of its kind in the U.S.

Dr. Burgdorfer, chief of NIAID's Arthropod-Borne Diseases Section of the RML, is a leading expert in tickborne diseases. In June of 1982, Dr. Burgdorfer and his colleagues isolated a spirochete (spiral-shaped bacterium) from certain ticks that appears to be the agent causing Lyme disease—a form of inflammatory arthritis.

Lyme disease was first recognized in 1975 in Lyme, Conn. and has since been reported in other Northeastern, Midwestern, and Western states.

Like Dr. Johnson, Dr. Burgdorfer believes in bringing his research to the general public. "Education of the public about ticks and the diseases they may transmit is the best means of disease prevention," Dr. Burgdorfer believes. □

NIGMS Grantee To Receive Welch Award in Chemistry

NIGMS grantee Henry Taube, professor of chemistry at Stanford University, will receive the 1983 Welch Award in Chemistry in November. This prestigious award, which is given annually by the Houston-based Welch Foundation, consists of a gold medallion and \$150,000.

Dr. Taube was cited for his "decades of leadership and dedication" to the field of inorganic chemistry. With support from NIGMS, he is currently investigating the role of metals in biological systems, particularly the metals' interactions with biologically important molecules such as peptides and nucleic acids and their function in electron transfer processes. □

Iontophoresis Used To Treat Herpes Virus Infections

Infections with herpes simplex virus (HSV)—both type 1 (cold sores) and type 2 (genital lesions)—have for years resisted virtually all therapeutic approaches. However, recent National Institute of Dental Research-supported studies conducted by Dr. Louis P. Gangarosa of the Medical College of Georgia, School of Dentistry, provide evidence that applying antiviral drugs by iontophoresis may prove effective therapy for herpes lesions.

Iontophoresis is a process of delivering medication to tissues by using an electric current to aid penetration. Iontophoresis is not new, but its potential for administering a variety of drugs has long been overlooked in both dentistry and medicine.

Many new antiviral drugs have been developed over the past 20 years for treating herpes infections. None of these topically applied medications, however, has proven effective against recurrent HSV-1 or HVS-2 lesions.

In the present study, the investigators administered Ara-AMP and acyclovir, another antiviral, by iontophoresis to guinea pigs infected with HSV-1, orofacial herpes. Both drugs produced consistent and significant reductions in duration of the lesions.

The investigators conclude that very small quantities of electrically charged antiviral drugs propelled by iontophoresis directly into the tissues offer the best hope for curing infections caused by herpes simplex virus.

The animal data obtained by this grant have supported an application to the Food and Drug Administration which was approved for Investigational New Drug studies of herpes lesions in humans that are now in progress.

Initial trials in humans are promising and support similar data obtained previously with idoxuridine, an older drug which has been used safely by topical application in humans for about 24 years.

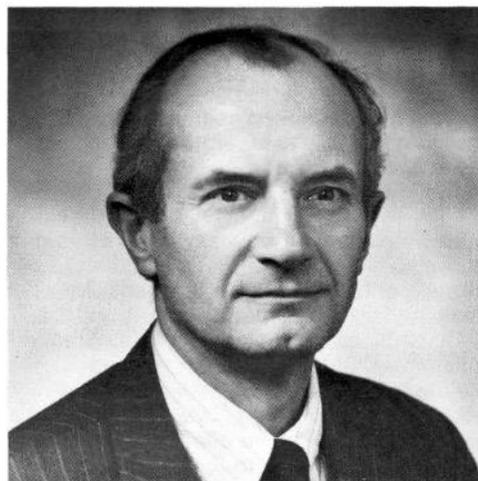
The consequences of stubborn herpes infections range from the self-consciousness caused by a fever blister to the staggering social effects of genital herpes. The problem is further compounded by the virus' ability to lie dormant in the body after the first infection and to emerge again days, months, or even years later.

In the United States today, it is estimated that over 20 million Americans suffer from genital herpes lesions and that, at one time or another, nearly everyone has been infected with HSV-1 (orofacial herpes). □

Parents and Children Needed For Alcohol Study at NIAAA

Parents and children (15-18 years) are needed for developmental testing in an alcohol study at the National Institute of Alcohol Abuse and Alcoholism.

Parents with a history of heavy drinking and current light or nondrinkers are needed. Volunteers will be paid for their time. For more information call Beth Israel at 496-5353. □



Dr. Lenfant

NHLBI Director Elected To Institute of Medicine

Dr. Claude Lenfant, Director, National Heart, Lung, and Blood Institute, has been elected a member of the Institute of Medicine. His 5-year term will begin Jan. 1, 1984.

New members are elected for their major contributions to health and medicine, or to related fields such as the social or behavioral sciences, law, administration and engineering.

The Institute of Medicine was chartered in 1970 by the National Academy of Sciences to enlist distinguished members of medical and other professions for the examination of policy matters on public health.

The Institute acts under both the Academy's 1863 Congressional Charter charge to be an advisor to the Federal Government, and its own initiative in identifying issues of medical care, research, and education.

Dr. Lenfant is an internationally recognized research scientist and clinician. His early research in France was in cardiovascular surgery and physiology, and in pulmonary circulation. He has made significant contributions to original science in the major areas of concern to NHLBI—cardiology, hematology and lung diseases.

Before becoming NHLBI Director in July of 1982, he served as NIH Associate Director for International Research and Director of the NIH Fogarty International Center.

He came to NIH in 1970 as the first NHLBI associate director for lung diseases and was responsible for developing that program into the Division of Lung Diseases in 1972. He was the division's first director, a post he held until leaving to head the FIC in 1981.

For his accomplishments in building the NHLBI, he received an HHS Superior Service Honor Award in 1974. Before coming to the NIH, Dr. Lenfant was professor of medicine at the University of Washington Medical School in Seattle, where he was active in teaching, patient care and research.

The author of more than 130 scientific papers and a member of a number of professional societies, Dr. Lenfant has received several honorary professorships and commendations from abroad. He received his M.D. from the University of Paris. □

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