

The NIH Record

Dr. John Finerty Named Program Director in NEI



Dr. John F. Finerty has been appointed program director in the Retinal and Choroidal Diseases Branch of NEI's Division of Extramural and Collaborative Programs.

In his new position, Dr. Finerty will be responsible for overseeing contracts and grants awarded to individual scientists working in fields of vascular, inflammatory, and neoplastic eye disease. He has a special interest in the genetic and immunologic basis for, or predisposition to, such diseases as diabetic retinopathy, retinoblastoma, melanoma, and uveitis.

Dr. Finerty comes to NEI from the National
(See DR. FINERTY, Page 11)

Mood and Melatonin

Pineal Gland and Retina Researchers 'Eye' Common Substances, Common Functions

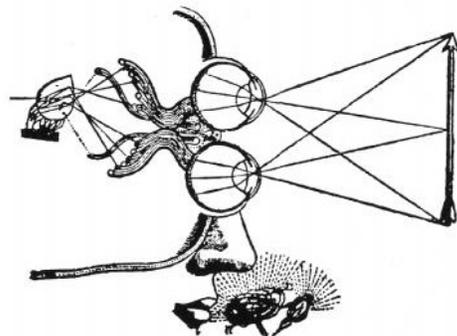
By Leslie Fink

Experiments conducted over the past decade by scientists studying the eye's retina and the brain's pineal gland have revealed striking similarities between the two organs. Although scientists acknowledged some of these similarities a century ago, modern scientists—entrenched in vision or brain research—have only recently begun to look again for possible links.

Two separate groups of scientists have studied the pineal gland and the retina, according to Dr. David Klein, a pineal researcher at the National Institute of Child Health and Human Development. "The people who study the pineal gland in mammals don't study the retina, and, in general, the opposite is true," he says.

But when researchers from these two different disciplines met to exchange ideas at the first Symposium on Pineal-Retinal Relationships in Sarasota, Fla. last May, they returned to their laboratories feeling that they were indeed related.

"It was like finding a relative you didn't know you had," says Dr. Paul O'Brien, a scientist at the National Eye Institute who, along with Dr. Klein, organized the Sarasota meeting. "We are eager to know just how much we have in common."



Because of the many links between the pineal gland and retina, NICHD's Dr. David Klein says "it is now my view that the pineal gland—the so-called third eye—was the first eye."

Biomedical researchers know the pineal gland best as a neuroendocrine organ located in the brain that regulates seasonal changes in physical characteristics, such as coat color and breeding cycles in some animals. The gland may also affect mood in humans. Controlled by

(See 'EYE', Page 10)

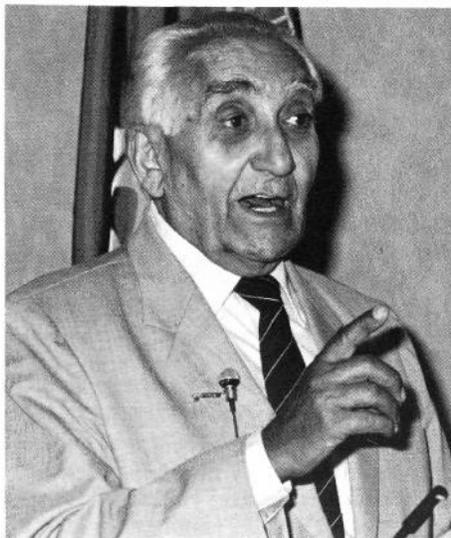
U.S. Doctor-in-China Explains Eradication of VD in People's Republic of China

Dr. Ma Hei De (born George Hatem of Lebanese parents in Buffalo, N.Y. in 1910) recently told an NIH audience how he and his medical teams went about virtually eliminating venereal disease from the People's Republic of China.

Speaking at the Lister Hill Auditorium under sponsorship of the Fogarty International Center, Dr. Ma recounted his biggest problem at the outset: determining who and how many of the enormous population had some form of VD.

Since China had millions of people, such a disease census was an exceedingly massive undertaking. (This was in the period 1952-62.) To make it manageable, Dr. Ma developed a questionnaire "clue" method to prescreen people most likely to have had venereal disease.

(It was on a survey of one million persons that Dr. Ma and his team later based their preliminary conclusion that China for all practical



Dr. Ma (George Hatem)

purposes had eradicated venereal diseases.)

As a young physician, Dr. Ma arrived in Shanghai in 1933 where he found much misery and poverty. The country, he said, was plagued by starvation, malnutrition and epidemics.

As for VD, he said the lack of equal rights for women in the pre-liberation (pre-Mao) era permitted a breeding ground for rampant venereal disease which was at its peak in 1949, when the Communist regime took over.

(Dr. Ma accompanied Mao Tse Tung, Chou En Lai and others destined to become leaders of the "new" China on the Long March to Yunnan.)

Tests in the early Mao years showed a syphilis rate of 1 to 3 percent in the countryside, 3 to 5 percent in mid-sized cities, 5 to 15 percent in major cities where the armies had traversed and highest—20 to 50 percent—among

(See DR. MA, Page 12)

'Dance of Mountain Gods' To Top Indian Program

The "Dance of the Mountain Gods" will be performed by the Apache Crown Dancers from the New Mexico Mescalero reservation Sept. 25-27 during the NIH American Indian Awareness Program.

The Apaches perform the "Dance of the Mountain Gods" to drive away sickness and evil and to bring good health and good fortune. Performed for generations, the dance is based on a legend of two handicapped men who were cured by mountain ghosts after being abandoned in a cave by their tribe.

Each year, the dance is performed nightly during the annual July 4th Mescalero Apache Ceremonial. This is the first time the dance will be performed indoors and without a bonfire. It is being performed especially for Clinical Center patients.

Programs will be held in the CC's Masur Auditorium starting at 11:45 a.m. each day. The Apache Crown Dancers will perform between 12:40-1:15 p.m. on all 3 days. Indian Arts and Crafts including beadwork, pottery, silver, leather craft and traditional dress will be displayed in the CC Information Office's ballroom museum (Bldg. 10, Rm. 5C305) as well as the Bldg. 31A patio between 10:30 a.m. and 2 p.m. on all 3 days. □

The NIH Record

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TRAINING TIPS

The following courses are sponsored by the Division of Personnel Management, Development and Training Operations Branch.

<i>Executive, Management, and Supervisory (496-6371)</i>	<i>Course Starts</i>	<i>Deadline</i>
Interpersonal Relationships	10/30	9/20
Managing Behavior in the Work Environment	10/30	9/20
Successful Middle Management at NIH	11/6	9/27
Managing Stress—Maximizing Effectiveness	11/3	10/4
Effective Listening	11/6	9/27
<i>Support Staff Training (496-6211)</i>		
Introduction to Working at NIH	10/17	10/1
Travel Orders & Vouchers	11/18	
Refresher Typing	10/1	9/13
Computer Literacy for Secretaries	11/21	10/25
People & Technology	10/28	9/23
Leadership Skills for Secretaries	11/4	9/30
Displaywriter 3 for Secretaries	10/16	9/18
Basic IBM Displaywriter	10/7	9/16
	or	
IBM Displaywriter "Special Appl."	10/21	9/23
Data Base III	10/29	10/1
Displaywriter 3 for Professionals	10/7	10/7
Advanced Lotus	11/6	10/7
Computer Literacy for Professionals	11/4	10/1
	10/30	10/1
	10/28	10/1

Share Training

For complete NIH Training Center information sign on to WYLBUR and enter SHARE TRAINING. First-time users enter X FR & AGS1. @ @ SHARE (SETUP) ON FILE 37.

Adult Education (496-6211)

Training & Development Services Program (496-6211)

Blue Cross Premium Refunds Approved for Fall Payment

Premium overpayment refunds for active civil service employees enrolled in the Federal Employees Benefits Program Service Benefit Plan (Blue Cross/Blue Shield) have been approved for 1985 by the Reagan administration.

According to the local Blue Cross/Blue Shield (BC/BS), a self-explanatory Rebate Application Form will automatically be mailed to enrollees in September. They suggested that only current policyholders who believe that BC/BS does not have their present address should call (800) 253-0123 and ask for a Rebate Application.

Tax-free refunds are expected to be mailed to enrollees in October. Other details on the period covered by and the amount of the rebate are being determined by BC/BS and the Office of Personnel Management.

At this time, no other health plans have proposed rebates. □

Hiking, Backpacking Trips

Trips to New Zealand, Arizona, the Appalachian Wilderness areas and beginning backpacking classes and trips are being offered to NIH R&W employees by Al Schneider of Wilderness Walks.

The 'Beginners Hiking and Backpacking Class' includes how to deal with heat, cold, bugs, bears and snakes; what equipment is needed, how to use a map and compass, select good trails, set up camp, and how to enjoy hiking and backpacking.

The course is 5 hours, 7-9:30 p.m., Oct. 3 and 10 in Conf. Rm. 2, Bldg. 31. The cost is \$25 and includes a free additional 2 hour food session on how to dry foods, plan camping menus, etc. During the class you can sign up for one of the many leisurely backpacking trips and day hikes.

Experienced hikers may call 972-1582 for details about the long trips to New Zealand, Arizona, and local 3-day trips. □

Nat'l. Hispanic Heritage Week Will Be Celebrated at NIH

The National Institutes of Health celebration of "National Hispanic Heritage Week" will take place on Sept. 16, from 11:30 a.m. to 1:30 p.m. in Wilson Hall, Bldg. 1.

This year's program, sponsored by the Division of Equal Opportunity and its Hispanic American Advisory Committee, will feature Dr. Lloyd Rogler, Albert Schweitzer University professor and director of the Hispanic Research Center, Fordham University, New York. He will open the program with an address on "Puerto Rican Families in New York City; Intergenerational Processes."

Following his speech, the program will conclude with a performance by the "Mariachis De Las Americas." The mariachi is a traditional musical group that originated in the state of Jalisco. The group is composed of guitarists, trumpets, violins and singers, who sing of love and heroic deeds.

Their dress is distinctive of the "Charro" (Medican cowboy). They wear short tops and tight pants, and their costumes are usually adorned with glittering buttons and colorful embroidery.

The name "Mariachi" is derived from the French word marriage since during Maximilian's reign in Mexico, they were often used for entertainment at weddings.

Although the state of Jalisco is the home of the Mariachi, they are seen and heard everywhere in Mexico and in much of the southwestern United States. □

NIH Seat Belt Week Set for Sept. 23-27

The most common cause of death among people under 35 is neither cancer nor cardiovascular disease—it's automobile accidents. Such deaths and serious injuries are preventable—at least 50 percent could be prevented by use of seat belts.

To encourage the use of seat belts on and off the NIH reservation, the Occupational Medical Service (OMS), the NIH Police Department, Division of Safety, Office of Research Services and the NIH R&W have proclaimed the week of Sept. 23 as NIH Seat Belt Week and organized the following events and services:

The Seat Belt Persuader, a device loaned to NIH by the Maryland Department of Transportation, simulates the impact of a car crashing at a very slow speed. Employees are buckled into the Persuader which is similar to a car sitting on the top of a short ramp. The car is released, travels down the ramp at approximately 5 mph and comes to an abrupt stop. The passenger is restrained by the seat belt to avoid injury. The NIH Police unit will be on hand to answer questions and to assist employees interested in using the Persuader which will be parked at the following locations during NIH Seat Belt Week (weather permitting).

Bldg. 10 cafeteria, (outside lawn) Sept. 24 and 25, 11:30 a.m. to 1:30 p.m.

Bldg. 31, cafeteria (outside lawn) Sept. 26, 11:30 a.m. to 1:30 p.m.

Westwood Bldg., back parking lot, Sept. 27, 11:30 a.m. to 1:30 p.m.

Literature Available

Near the Persuader will be an OMS, Police Dept. and R&W booth with literature on the advantages of using seat belts and infant car restraints, as well as a consumer's guide to infant safety seats; information on the R&W Infant Safety Seat free loan program and demonstration of beeper devices for cars. This device sends out an audible signal when you back up which warns toddlers and small children to move out of the way. R&W will have the beepers for sale at the demonstration.

Beginning the week of Sept. 16, "Seat Belt Pledge Cards" will be made available to all NIH employees. By signing a pledge card an employee agrees to use his/her seat belt for at least 1 month when driving on the NIH campus and in the community.

Pledge cards may be obtained at the main OMS Health Unit, Bldg. 10, 6th fl., ACRF, the 3 auxiliary OMS health units, Bldg. 13, Rm. G901, the Westwood Bldg., Rm. 28 and



The seat belt persuader simulates a car crash at 5 m.p.h.

the Federal Bldg., Rm. 5C12; the R&W Activities Desk, Bldg. 31, Rm. B1A45; the NIH Fitness Center, Bldg. T-39; the NIH Parking Office, Bldg. 31, Rm. B1C21; the P-3 level parking "house" exit of the Bldg. 10 parking lot and from all NIH Police Officers.

Employees who sign pledge cards are eligible to win prizes donated by R&W. The drawing for prizes, will be held at the Westwood Bldg., Sept. 27 at 1:30 p.m. near the Persuader.

For further information, call OMS at 496-4411. □

Health's Angels 10-miler Will Be Run Sept. 22

Sunday, Sept. 22, will mark the 10th annual running of the NIH Health's Angels Anniversary 10-mile run in Rock Creek Park. The 10-miler will go off at 9:45 a.m. sharp, preceded by a 1-mile "Fun Run" for kids 10 and under at 9 a.m. and a 2-mile "Run For Your Life" at 9:15 a.m.

All races will begin and end at the Ken-Gar Recreation Center in Rockville.

The 10-mile run is cosponsored by the D.C. Road Runners Club and is one of the events in their championship series. DCRRC will provide trophies for the top three finishers in each of six age groups for men and women in the 10-miler, and ribbons for all finishers in the other races.

Health's Angels will have ribbons for all finishers in the 10-mile run and special awards for the top man, the top woman and the fastest NIH'er. In addition, the "unbody" award will be given to the fastest runner whose weight (in pounds) exceeds 2.5 times his/her height (in inches). Runners can register at Ken-Gar on the day of the race for an entry fee of \$1 for members of either club and \$2 for non-members. □

Training for Investigators On Research Animal Use

A training course on "Using Animals in Intramural Research: Guidelines for Investigators" will be presented on Tuesday, Oct. 15, 8:30 a.m. to 12:30 p.m.

The course will be presented jointly by the NIH Animal Research Committee and the NIH Training Center. This is the second session of what will be a regularly scheduled course designed to help the Institutes obtain training for staff as specified in NIH policies and guidelines.

Topics covered will include:

- Public Interest and Humane Treatment of Animals
- Principles and Policies for Animal Use at NIH
- Investigator Responsibilities
- Technical Information and Training Opportunities for NIH Animal Users
- Panel Discussion of Audience Questions

The October class can accommodate 100 persons. Announcements are available from Institute personnel offices and chairpersons of Institute Animal Research Committees. Registration closes Sept. 17.

For more information, contact Dr. James Harwell at 496-1076. □

OMS' Counseling Service Offers Lectures on Coping

The Employee Counseling Services of the Occupational Medical Service will be offering a series of guest lectures on topics related to coping with various aspects of living.

Most of the subjects will be presented by mental health professionals in the Washington area, and each speaker chose a subject of special interest to him/her.

Reminders on each lecture will be published close to the date of presentation.

- OCT. 2: *Up In Years (... And Off My Rocker)*
Ms. Clara Cassidy
- NOV. 12: *Dealing With Aging Parents*
Ronald Wynne, Ph.D.
- JAN. 15: *Men in The Eighties—Macho, Meek, Maverick or Mysterious?*
Bruce Barth, Ph.D.
- FEB. 12: *Death of a Parent or Sibling During Childhood*
Janice L. Krupnick, LCSW
- MAR. 19: *Anger—Good or Bad?*
Vivian Dietz, MSW, RN
- APRIL 16: *Divorce, Separation and Remarriage*
Arlene Goustan, MSW
Dee Stern, MSW □

STEP Announces Forum Sessions, Training Modules For 1985-86

"Science and the Media: Headlines, Headaches, and Halos," will be the first training Module offered by the STEP (Staff Training in Extramural Programs) Committee for the 1985-86 season on Dec. 9-10.

The STEP Program, developed primarily for extramural staff, has been part of a continuing education program sponsored by NIH for over 20 years. It operates under the auspices of the NIH associate director for extramural affairs, Dr. George Galasso. The program is coordinated by a committee of NIH staff members who plan and conduct the training sessions, along with other NIH professional staff volunteers.

Dr. James C. Hill, assistant to the NIAID Director, has been named chairman of the STEP Committee for 1985-86 and Arlene M. Bowles, Office of Extramural Research & Training, is program coordinator. Six modules in areas of vital interest to the NIH community have been selected. In addition, the STEP Committee will present a Forum series on such topics as health services research, funding decisions, women in science, the legislative process, and contributions from the behavioral sciences to biomedical research in the 1980s.

Module 1 will examine the effects of professional and lay medical coverage on biomedical and behavioral research programs of the Public Health Service, as well the initiation of reports of research advances by the PHS.

Module 2 is "Let Your Fingers Do the Walking: Accessing IMPAC, CRISP, and CMIS Data Bases." Sessions will be held at NIH on Jan. 15, 17, and on Feb. 21, 1986. Open to those who can log onto WYLBUR, this course will provide hands-on experience in how to access the three informational databases most commonly used by NIH extramural staff.

Grants Management

Module 3, "Pre- and Post-Award Management of Grants: A Guide for Program Managers," will be held at NIH Mar. 24-25, 1986. This module will deal with the roles and responsibilities of extramural program officials in managing grants during the pre- and post-award phases.

Module 4, "Effective Talking: Techniques for Working it Out," will be given Apr. 9-11, 1986, at an off-campus facility. This module will explore effective means for improving com-



Dr. James C. Hill, NIAID, is chairman of the STEP Committee for FY 86.

munications skills in the work place. Attention will be given to sources of conflict and stress in interpersonal relationships.

Module 5, "Setting Priorities: Directions in Health Research," will be held Apr. 21-22, 1986, on the NIH campus. Factors and organizations that influence priorities and directions of health-related research will be examined, as will the roles of BID Boards and Advisory Councils in setting priorities.

Module 6, "Current Issues in R&D Contracting," will be held May 14, 1986, on the NIH campus. Research and development contracting will be studied, with special emphasis on recent regulatory and procedural changes of concept review and source evaluation/selection. This module is designed specifically for extramural staff involved in various aspects of R&D contracting.

Those interested in the STEP Modules must submit application form NIH-2245 (the new form, revised May 1984) which is available from the BID personnel offices, Dr. Andrew Chiardo (Blair), Dr. Anne Ball (Federal), Dr. David Monsees (Landow), Dr. Fred Heydrick (Westwood), and the STEP Program Office in Rm. 1B63, Bldg. 31, 496-1493.

Application deadline for the first three Modules is Oct. 11, 1985; for the last three, Jan. 10, 1986. No application is needed for the STEP Forum discussion series—it is open to all NIH employees. □

Sailing Club Offers Training

The R&W Sailing Association invites would-be sailors to join the Sailing Association and register for the Fall Basic Training Session on the club-owned Flying Scots. Training will be held for 6 weeks in September and October. Call Sally Stevens, 496-4124. □

Basics of Searching MEDLINE

The Basics of Searching MEDLINE: A Guide for the Health Professional is now being offered by the Bldg. 10 Foundation for Advanced Education in the Sciences bookstore.

As computer equipment increases in sophistication and decreases in cost, many health professionals are attending special 1-day training sessions to learn how to perform their own online searches. These sessions are offered through the regional medical libraries and also by many trained MEDLARS searchers at various locations.

The MEDLINE publication was prepared by the National Library of Medicine's MEDLARS Management Section to be used in such workshops. Since the *Guide* is designed to be self-instructional, it can also be used apart from a formal training course.

The *Guide* provides an introduction to the basic techniques used in searching MEDLINE. It does not replace the Initial Online Services Training Course offered by NLM; that course covers MEDLINE and other database searching in greater detail and presents more sophisticated searching techniques.

The health professionals using the *Guide* should practice with INTROMED, a special NLM training database. INTROMED contains a sample of about 20,000 records (less than 4 percent of the MEDLINE database).

After carefully reading the *Guide* and practicing searches of INTROMED, health professionals will have enough knowledge to perform "author" searches, as well as simple subject searches. □



Dr. George Galasso, President of the NIH Lodge Order Sons of Italy in America (OSIA), presents a check to Camp Fantastic coordinator Kathy Russell. Proceeds from a recent OSIA art auction fundraiser will enable four children, who would not otherwise be able to attend, to participate in the summer camp for sick children. Members of the NIH community and local vendors generously supported the art auction. Contributions were also made to the Cooley's Anemia Foundation and the March of Dimes.

Two New Members Appointed to NLM Board of Regents

Dr. Edward N. Brandt Jr., former assistant secretary for health and current Chancellor of the University of Maryland at Baltimore, and Ann K. Randall, professor and chief librarian of the City College of CUNY, have been appointed to 4-year terms on the Board of Regents of the National Library of Medicine by HHS Secretary Margaret M. Heckler.

"It is a special pleasure to add caliber to quality," Secretary Heckler said. "Dr. Brandt and Prof. Randall have superlative credentials—they enhance the excellence of an already outstanding Board of Regents."

The Board meets three times a year to oversee Library policy and to review applications for grants.

The Board is chaired by Dr. L. Thompson Bowles, dean for academic affairs and professor



Dr. Brandt

of surgery at the George Washington University Medical Center in Washington, D.C. At the Board's last meeting in June, Dr. Bowles was unanimously re-elected chairman.

Dr. Brandt is familiar with the Library and its programs from his tenure as HHS assistant secretary for health (1981-1984). He holds concurrent academic appointments at the University of Maryland as professor, department of epidemiology and preventive medicine and professor, department of family medicine.

His undergraduate, master's and two doctoral degrees were conferred by the University of Oklahoma Medical Center, where he later spent 10 years on the faculty. In 1970 he accepted a position at the University of Texas Medical Branch at Galveston where he served on the faculty and in a series of administrative positions, becoming, in 1977, vice chancellor for health affairs.

Dr. Brandt has received two honorary doctoral degrees and numerous awards from the many local, state, national and international health organizations with which he has been associated. He is the author or coauthor of some 100 scientific articles, chapters and books.

Dr. Randall also joins the Regents with some knowledge of the National Library of Medicine. She was a member and chairperson of the Advisory Council of the New England Regional Medical Library Service. Headquartered at the Countway Library at Harvard and supported by grant and contract from the NLM, this service served as the Regional Medical Library for the New England area.

Dr. Randall received her undergraduate degree from Barnard College and her master's and doctoral degrees in library science from Colum-



Ms. Randall

bia University. She has been an instructor and adjunct lecturer at Queens College Library (Flushing, N.Y.), assistant professor and chief of the Instructional Materials Center at the Brooklyn College Library, assistant university librarian at Brown University. In 1982, she was appointed to her present position directing a library of more than one million volumes serving a student population of more than 12,000. □

NIH Training Center Offers Career Development Plan

The NIH Training Center has announced a new career development opportunity—the Career Curricula Program.

The Career Curricula Program is designed to meet NIH staffing needs while providing NIH employees in non-professional job series with an opportunity for career change and advancement.

Through a combination of academic advisement, training (taken on participants own time) and informal occupational mentoring, the program's aim is to prepare participants to compete for professional entry-level jobs in occupations targeted for training.

Three occupations are training targets in the 1985-86 Career Curricula Program: budget analyst, contract specialist and grants management specialist.

This new program is directed by the Technical Advisory Board, a group of senior managers selected by the NIH Associate Director for Administration. Annually, the TAB will identify occupations for training based on NIH staffing projections. Cost of tuition and materials are paid by the NIH Training Center Career Curricula account.

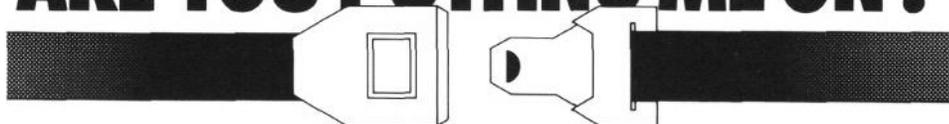
Interested employees must meet all basic eligibility requirements to apply.

If you are a GS-8 or below (or Federal Wage Grade equivalent), employed in a one-grade interval job series and have a high school diploma but do not possess a bachelors' degree, you may be eligible to apply. Complete eligibility requirements will be discussed at scheduled information sessions.

Information on the program, application and selection process will be provided at the following sessions from 11:30 a.m. to 12:30 p.m.:
Landow Bldg., Conf. Rm. E, Monday, Sept. 16;
Westwood Bldg., Rm. 428, Tuesday, Sept. 17; Bldg. 10, 11 Fl. solarium, Wednesday, Sept. 18; Bldg. 31, Rm. B2C07, Thursday, Sept. 19.

Application packets are available from the Development and Training Operations Branch, DPM, Bldg. 31, Rm. B2C31. To be considered for the program, applications must be completed and received by Oct. 11. For more information call Brigid Noonan, 496-6211. □

ARE YOU PUTTING ME ON?



Ten-Year-Old Clinical Center Patient Shakes Pom-Poms With Redskinettes

It was a great day in the life of Clinical Center patient Angela Valdivia when she had a chance to meet some of the "Redskinettes," cheerleaders for the Washington Redskins, at a recent picnic for CC pediatric patients.

Luckily for her, photographers were on hand to record her beaming face as she delighted in the chance to shake pom poms with a professional. (*NIH Record*, July 30, 1985.)

Angela, like most soon to be 10-year-olds, loves new experiences such as meeting a professional cheerleader. Unlike most children her age, however, Angela has chronic granulomatous disease, which is not a pleasant experience.

Due to her body's compromised ability to fight infection, Angela is at risk for serious complications which arise from what otherwise would be minor illnesses. For the past 5 weeks, she has received daily granulocyte transfusions along with other therapies designed to fight a current infection.

Disease Rare

Chronic granulomatous disease is extremely rare, occurring in approximately one out of every 500,000 people, said Dr. John Gallin, chief, Bacterial Diseases Section, LCI, NIAID.

The problem for patients like Angela, he says, is that their granulocytes (which are otherwise structurally intact) do not produce hydrogen peroxide. Hydrogen peroxide is an essential chemical for the process of destroying bacteria.

Dr. Gallin believes that patients' granulocytes can obtain hydrogen peroxide from transfused donor cells. It is also believed that one normal transfused granulocyte can have this positive effect on several of the patient's own cells.

When these two types of cell—the donor's and the patient's—work together, granulocytes can then go about their mission of surrounding, ingesting and destroying the microorganisms which cause the patient's infection.

Since this disease is so rare, the number of patients potentially in need of granulocyte transfusions is relatively small. Dr. Gallin is presently following approximately 30 patients with chronic granulomatous disease. Although some patients have had repeated episodes of infection requiring granulocytes, only about nine patients have actually been supported with repeated granulocyte transfusions in the past 5 years. Unfortunately, the need for granulocytes is often a chronic one.

Granulocytes must be transfused between compatible blood groups. Therefore, patients



Angela Valdivia

with chronic granulomatous disease must rely on the generosity of compatible blood-type strangers to provide these cells they so critically need.

Such is true for Angela, whose only family member with a compatible blood type is her mother. Disappointed by the fact that his blood type is incompatible with that of his daughter, Frank Valdivia has donated platelets for the benefit of other CC patients.

Finding Donors Difficult

Finding compatible granulocyte donors for Angela is a somewhat difficult task. Her blood type is B positive which occurs in less than nine percent of the normal donor population.

Donors with type B negative blood would also be suitable to meet Angela's needs. But, only two percent of all donors fit this type. While donors with the blood group B are needed for Angela, additional donors are needed to help support other patients.

If you are between the ages of 18 and 65, are in good health, and would like more information regarding granulocyte donations, please call the NIH Plateletpheresis Center at 496-4321. □

"Remedy" for being struck by lightning: Shower with cold water for two hours; if the patient does not show signs of life, put salt in the water, and shower an hour longer.—The Home Cookbook, (1877)

Share Training Is Here!

The NIH Training Center announces Share Training—information on NIH Training Center courses and programs as well as other NIH training resources.

Share Training aims to provide NIH employees with WYLBUR access, immediate and up-to-date information about NIH Training Center courses and programs. The system can be entered through a DELPRO terminal (using TSO), a WYLBUR terminal, a PC with modem, or word processing equipment with communications capabilities.

Once in WYLBUR, first time users will type the following: X FR & AGSIUGL, @@SHARE (SETUP) on FILE37. After the first-time use, it is only necessary to type the words: Share Training. Prompts and directions on how to use the system are provided by the Share Training system. Share Training carries something new daily.

The Share Training provides users with two menus. The general information menu guides users through information about the system and how to use it.

For more experienced users, the Training System Menu provides specific course and program information arranged by subject areas (for example, Office Automation) as well as by individual courses or programs (for example, Microcomputer Literacy).

Specific information on courses or programs includes a description, dates, times, location, etc.; all the information you will need for filling out 350s.

General information is provided in the system for other sources of training at NIH, (for example, DCRT, STEP, FAES). Users of the Share Training system can print out information at their terminals or offline.

The Share Training system provides:

- Easy access to NIH Training Center course information at any time for anyone with WYLBUR access.
- Up-to-the-minute information about course changes.
- Saves time in calling the NIH Training Center for course information and waiting for it to be mailed.
- Printed copies of the information through existing WYLBUR functions.

Share Training is available starting this month. The Training Management Branch will make presentations and give Share Training demonstrations to various groups at NIH. If you would like information about the system or assistance in using Share Training, contact the Training Management Branch, 496-2146.

The Share Training system concept was designed by Marilyn Schoenfelder, NIA, while on detail to the NIH Training Center. □

HealthCare Expo '85 Featured Panorama of Modern Medicine



3,000 square feet. (See pictures.) NASA sent a full-scale walk-through mock-up of Spacelab-4, the first spacelab dedicated to the life sciences. The American Red Cross Pavilion showed health screening on blood types, blood pressures and nutritional status.

Among the voluntary and professional organizations exhibiting were the American Association of Retired Persons, the American Cancer Society, the American Diabetes Association,

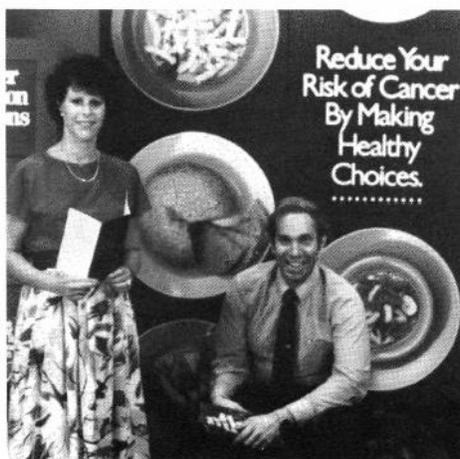
HealthCare Expo '85 which featured hundreds of exhibits and programs for the general public and health care professionals, including a program on NIH and its Institutes, took place Aug. 18-24 at the Washington Convention Center.

The 6-day event, one of the largest and most comprehensive educational events in the history of medicine, touched on every major aspect of health care in the United States today—from the intricacies of molecular biology to the medical care cost enigma.

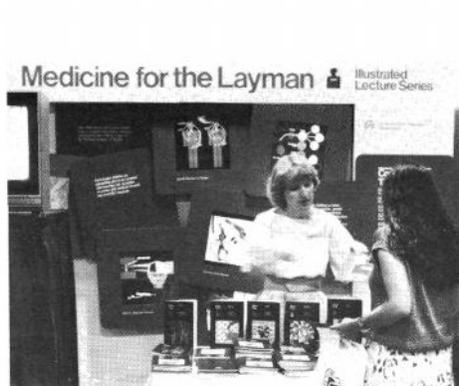
The exhibit area for HealthCare Expo '85 was divided into 20 Centers, each focusing on a major specialty of medicine. Exhibits, lectures and demonstrations dealt with new methods of diagnosis and treatment; the latest in biomedical research; the best thinking on disease, accident prevention and control as well as current trends in the economics of health care costs.

For the first time, the public, private and voluntary sectors of health care cooperated in a major educational event.

NIH had exhibits occupying more than



the American Heart Association, the National League for Nursing, Cystic Fibrosis Foundation, Myasthenia Gravis Foundation, and many others.



New Literature Searches

The following titles in the National Library of Medicine's 1985 series of Literature Searches are available from the NLM Reference Section:

- LS 85-95 *Indigent care*. January 1975 through May 1985. 291 citations from the Health Planning & Administration database.
- LS 85-10 *Child abuse*. January 1983 through June 1985. 491 in English.
- LS 85-11 *Chlamydia trachomatis infections*. January 1983 through July 1985. 274 citations in English.
- LS 85-12 *Financing health care for the elderly*. January 1983 through August 1985. 257 citations from the Health Planning and Administration database.
- LS 85-13 *Peer review organization (PRO)*. January 1980 through June 1985. 267 citations from the MEDLINE and Health Planning and Administration databases.
- LS 85-14 *Adjuvant chemotherapy for breast cancer*. January 1980 through August 1985. 403 citations in English.
- LS 85-15 *Malpractice-Insurance, Legislation, Economics*. January 1983 through August 1985. 305 citations in English.

To request copies, send a self-addressed gummed label with the LS numbers and titles to: Literature Search Program, Reference Section, National Library of Medicine, Bethesda, MD 20894.

A complete list of LS titles appears in each monthly issue of *Index Medicus* and *Abridged Index Medicus*. □

R&W Travels to Cape Cod

Join R&W, Oct. 14 to 18, for a journey to Cape Cod.

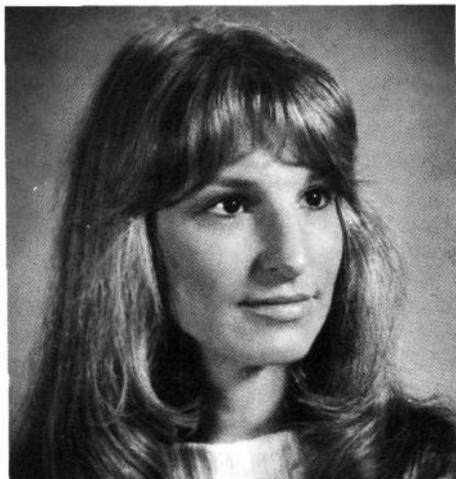
Buses will leave Bldg. 31C at 7 a.m. Monday morning Oct. 14 (Columbus Day).

Included in the package will be a side trip to Newport, Rhode Island and the Hammersmith Farm; tour of Cranberry World; tour of Sandwich and Plymouth including a view of Plymouth Rock, Mayflower II. Also 4 full American breakfasts, 3 dinners, lobster bake or steak barbeque luncheon and stay at the Town and Country Motel which has 3 heated pools.

The cost is \$242.50 per person (double occupancy); \$236.50 (triple occupancy); \$230.50 (quad occupancy) and \$290.50 (single occupancy).

Sign up at the R&W Activities Desk, Bldg. 31 or the Westwood R&W Gift Shop. A \$125 deposit is due at time of sign up. Balance is due by Sept. 13. □





Sarah Richards, motion picture archivist at the National Library of Medicine, earned her Bachelor of Arts degree from American University recently as a participant in the STRIDE program. STRIDE is part of the Upward Mobility and Equal Employment Opportunity Programs of HHS which provides training for nonprofessionals enabling them to move into targeted professional slots that meet organizational and staffing needs of the Agency. Despite the demands of the position as well as a full-time course load at American University, Ms. Richards graduated magna cum laude in visual communications and was named "Most Outstanding Visual Media Communications Student" in the school of communications.

NIADDK Lecture Series Resumes on Tuesdays

NIADDK has announced resumption of its Tuesday morning lecture series, starting Sept. 17, on the topics of Cell Growth and Nutrition, and Mechanisms in Inflammatory Connective Tissue Diseases.

These series are presented as a forum for senior scientists and young researchers. A lecture of broad and general appeal will be presented from 8:15-9:15 a.m., Bldg. 10, ACRF Amphitheater followed by discussion and individual presentations on the topic from 9:15-10:15 a.m., Bldg. 10, ACRF Medical Board Rm. 2C-116.

The fields covered by the broad NIADDK program in cell growth and nutrition are poised for major development.

The schedule includes the following speakers and topics:

Sept. 17, Dr. Orville Levander, USDA Human Nutrition Research Center, Beltsville, Md., "Understanding of Selenium in Human Nutrition and Disease." Dr. Victor J. Ferrans, NHLBI, and Dr. Loren A. Zech, NCI, will

give topical presentations.

Oct. 1, Dr. Samuel W. Cushman, Molecular, Cellular, and Nutritional Endocrinology Branch, NIADDK, "Effects of Altered Metabolic States on Regulation of Glucose Transport." Topical presentations will be by Dr. William Gahl, NICHD, and Dr. Evelyn F. Grollman, NIADDK.

Oct. 29, Dr. Matthew M. Rechler, Molecular, Cellular, and Nutritional Endocrinology Branch, NIADDK, will speak on "Insulin-Like Growth Factors in Normal and Abnormal Cell Growth." Dr. David R. Clemmons, the University of North Carolina at Chapel Hill, N.C. and Dr. Takami Oka, NIADDK, will give topical presentations.

Nov. 19, Dr. Rudolph Leibel, associate professor, The Rockefeller University, New York, N.Y., "Differential Adrenergic Responsiveness of Human Adipose Tissue: Anatomic and Nutritional Factors." Topical presentations will be given by Dr. Clifton Bogardus and Dr. Constantine Londos, NIADDK.

Nov. 26, Dr. Stephen J. Marx, Metabolic Diseases Branch, NIADDK, will present "Calciferols as Vitamins and Hormones." Topical presentations will be given by Dr. Michael Blizotes and Dr. Maria Luisa Brandi, NIADDK. This will be the last lecture in this series.

NIH is accredited by the Accreditation Council for Continuing Medical Education to sponsor continuing medical education for physicians. This conference meets the criteria for 10 credit hours in Category I of the Physician's Recognition Award of the American Medical Association.

The series on Mechanisms in Inflammatory Connective Tissue Diseases will include lectures on pathogenetic mechanisms in several major connective tissue diseases. Particular attention will be focused on potential exogenous (outside) agents that may initiate the disease process, the immune mechanisms whose activation may ultimately provide the driving force for the chronicity of these diseases, and finally the biochemical basis of the inflammatory responses initiated by the disordered immune response.

Dates and topics for this series are:

Sept. 24, Dr. James Balow, Metabolic Diseases Branch, NIADDK, "The Connective Tissue Diseases," and Dr. Paul H. Plotz, Arthritis and Rheumatism Branch, NIADDK, "Autoimmunity in Connective Tissue Diseases." Topical presentations will be by Dr. Bellur Prabhakar, NIDR, and Dr. Frederick Miller, NIADDK.

Oct. 8, Dr. Ronald Wilder, Arthritis and Rheumatism Branch, NIADDK, "Pathogenesis of Erosive Polyarthritis: Lessons from Animal Models," and Dr. Allen Steere, Yale University, on "Lyme Arthritis: A Spirochete-Induced Disease."

Oct. 22, Dr. Alfred D. Steinberg, Arthritis

and Rheumatism Branch, NIADDK, "Altered Gene Expression and Immune Regulation in Systemic Lupus and in Angio-Immuno-blastic Lymphadenopathy." Dr. John Mountz, NIADDK, and Dr. Elizabeth Raveche, Albany, N.Y. will give topical presentations.

Nov. 5, Dr. Edward J. Goetzl, University of California, San Francisco, "Biochemical Mechanisms in Inflammation." Topical presentations will be given by Drs. Lawrence M. Wahl, Michael R. Ruff, and Sharon M. Wahl, NIDR, and Dr. David E. Yocum, NIADDK. (Last lecture.)

This lecture/discussion series, which is sponsored in cooperation with the Washington, D.C. chapter of the Arthritis Foundation meets the criteria for eight credit hours in Category I of the Physician's Recognition Award of the American Medical Association.

For more information on either of these two lecture series, contact Ruth Davis, 496-3414. □

Software Users' Meeting To Be Held Sept. 24

The next Integrated Software Systems Corporation (ISSCO) Mid-Atlantic Users Group meeting will be held at NIH, Bldg. 31C, Conf. Rm. 6, on Tuesday, Sept. 24 between 8:30-12 noon.

ISSCO Users meet to discuss problems and share their knowledge relating to TELL-A-GRAF and DISSPLA.

For details, contact Kathy Denikos 496-7217. □

Tutorials in Chemical Physics And Biophysics to Be Discussed

An organizing meeting will be held Thursday, Sept. 12 in Rm. 102, Bldg. 2, at 3:00 p.m. to discuss a tutorial seminar series in chemical physics and biophysics.

The purpose of the series is to provide people specializing in these areas a chance to discuss the elements of their subject as well as acquainting experimentalists with useful results.

For additional information contact: Attila Szabo, 496-2650, or George Weiss, 496-1135. □

'Federal Employees Almanac' Available at R&W Gift Shops

The Federal Employees Almanac, a reference book for Federal workers, is now available at all R&W Gift Shops and the Activities Desk in Bldg. 31. Cost is \$2 □

Dr. E. Anderson Dies; Pioneer Endocrinologist

Dr. Evelyn Anderson, former chief of the Section on Endocrinology, Laboratory of Nutrition and Endocrinology, NIAMD, (now NIADDK), died June 8, 1985, in Baton Rouge, La. where she had been hospitalized following a stroke.

Dr. Anderson, a pioneer in the field of endocrinology, headed the first NIH laboratory devoted to basic endocrinology. She was noted for her discovery of anti-TSH, a substance capable of counteracting pituitary thyroid-stimulating hormone (TSH), and for elucidating the principle of antihormones.

As head of the section, Dr. Anderson continued studies begun in Berkeley, Calif. on the pituitary gland and pursued a new interest in the hypothalamus.

In 1949 she recruited Dr. Bernardo Houssay, the Argentinian Nobel laureate and expert in the pathophysiology of diabetes, to work with the section.

In 1962 Dr. Anderson returned to California with her husband, noted neurologist Dr. Webb E. Haymaker, for a position with the National Aeronautics and Space Administration.

Born in Willmar, Minn. in 1899, she attended Carleton College in Northfield, Minn., received an M.D. degree from the University of California in 1928 and a Ph.D. degree in biochemistry from McGill University in 1934.

Professional Honors

Among her professional honors were the Governor General's Medal from McGill University, Honorary Doctorate of Science degrees from Carleton College and the Women's Medical College of Pennsylvania, the Presidential Award for the Most Outstanding Woman in Science in the Federal Government, and an Achievement Award from the American Swedish Historical Foundation.

She retired in 1969.

Dr. Anderson is survived by her daughters, Ingrid Becher of Boulder, Colo.; Evelyn Dolven, Berkeley, Calif.; by a son, Richard W. Haymaker, Baton Rouge, La.; a sister, Phoebe Wolfe, Connecticut; and eight grandchildren. Her husband of 48 years, Dr. Webb E. Haymaker, died in 1984.

Memorial gifts may be made to the Mary L. Benton Scholarship fund at Carleton College.

VISITING SCIENTISTS

7/3 Dr. Carlos Collin, Chile. Sponsor: Dr. Daniel Alkon, Marine Biological Laboratory, NINCDS, Woods Hole, Ma.

8/1 Dr. Ase Andersen, Denmark. Sponsor: Dr. Sotiros Chaparas, Laboratory of Mycobacterial and Fungal Antigens, NCDB, Bg. 29, Rm. 420.

8/1 Dr. Vesna Cvejic, Yugoslavia. Sponsor: Dr. Maria Spatz, Laboratory of Neuropathology and Neuroanatomical Sciences, NINCDS, Bg. 36, Rm. 4B22.

8/1 Dr. Stella Elkabes, Turkey. Sponsor: Dr. Y. Peng Loh, Laboratory of Neurochemistry and Neuroimmunology, NICHD, Bg. 36, Rm. 2A19.

8/1 Dr. Alberto Gulino, Italy. Sponsor: Dr. Nikki J. Holbrook, Laboratory of Pathology, NCI, Bg. 10, Rm. 2N113.

8/1 Dr. Peter Heinz-Erian, Austria. Sponsor: Dr. Jerry Gardner, Digestive Diseases Branch, NIADDK, Bg. 10, Rm. 9C103.

8/1 Dr. Melvyn P. Heyes, United Kingdom. Sponsor: Dr. Steven Wine, Laboratory of Neurophysiology, NIMH, Bg. 36, Rm. 2D12.

8/1 Dr. Takeshi Nakanishi, Japan. Sponsor: Dr. Maurice Burg, Laboratory of Kidney and Electrolyte Metabolism, NHLBI, Bg. 10, Rm. 6N307.

8/1 Dr. Victor Pribluda, Israel. Sponsor: Dr. Henry Metzger, Arthritis and Rheumatism Branch, NIADDK, Bg. 10, Rm. 9N256.

8/1 Dr. Kazuo Shinozuka, Japan. Sponsor: Dr. Gerald Zon, Molecular Pharmacology Laboratory, NCDB, Bg. 29, Rm 208.

8/4 Dr. Jukka K. Ainamo, Finland. Sponsor: Dr. Herschel Horowitz, Disease Prevention Branch, NIDR, Westwood Bg., Rm. 540D.

8/5 Dr. Aldo E. Calogero, Italy. Sponsor: Dr. Lynn Loriaux, Developmental Endocrinology Branch, NICHD, Bg. 10, Rm. 10N262.

8/5 Dr. Ronald Chatelier, Australia. Sponsor: Dr. Allen Minton, Laboratory of Biochemical Pharmacology, NIADDK, Bg. 4, Rm. B127.

8/7 Dr. Lin Xi, China. Sponsor: Dr. William Watson, Veterinary Resources Branch, DRS, Bg. 14A, Rm. 103.

8/12 Dr. Geetha Bansal, India. Sponsor: Dr. Ronald Wilder, Arthritis and Rheumatism Branch, NIADDK, Bg. 10, Rm. 9N228.

8/12 Dr. Li-Shan Hsieh, Taiwan. Sponsor: Dr. Marshall Nirenberg, Laboratory of Biochemical Genetics, NHLBI, Bg. 36, Rm. 1C27.

8/13 Dr. Hirotsugu Miyashiro, Japan. Sponsor: Dr. H.T. Miles, Laboratory of Molecular Biology, NIADDK, Bg. 2, Rm. 205.

8/14 Dr. Naohiko Miyashita, Japan. Sponsor: Dr. Charles Langley, Laboratory of Genetics, NIEHS, Research Triangle Park, N.C.

8/16 Dr. Chen Chang-ging, China. Sponsor: Dr. H.T. Miles, Laboratory of Molecular Biology, NIADDK, Bg. 2, Rm. 205.

8/16 Dr. Takashi Minegishi, Japan. Sponsor: Dr. Maria Dufau, Endocrinology and Reproduction Research Branch, NICHD, Bg. 10, Rm. 8C408.

8/18 Dr. Michael Myslobodsky, Israel. Sponsor: Dr. Allan Mirsky, Laboratory of Psychology and Psychopathology, NIMH, Bg. 10, Rm. 4C112.

8/18 Dr. Sankaran Subramanian, India. Sponsor: Dr. Edwin Becker, Laboratory of Chemical Physics,

NIADDK, Bg. 2, Rm. 122.

8/20 Dr. Haruhiko Kawasaki, Japan. Sponsor: Dr. Edith Miles, Laboratory of Biochemical Pharmacology, NIADDK, Bg. 4, Rm. B108.

8/20 Dr. Osamu Sugawara, Japan. Sponsor: Dr. J. Carl Barrett, Laboratory of Pathobiology, NIEHS, Research Triangle Park, N.C.

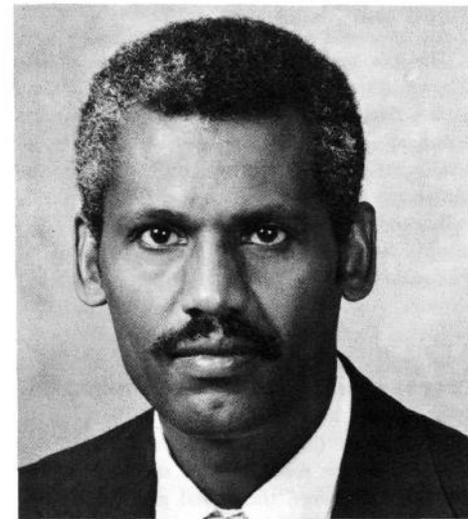
8/21 Dr. Evelyne May, France. Sponsor: Dr. Norman Salzman, Laboratory of Biology of Viruses, NIAID, Bg. 5, Rm. 326.

8/21 Dr. Renate Pflug, Austria. Sponsor: Dr. Ralph Nelson, Laboratory of Neurophysiology, NINCDS, Bg. 36, Rm. 2C02.

8/22 Dr. Masao Seto, Japan. Sponsor: Dr. Stanley Korsmeyer, Metabolism Branch, NCI, Bg. 10, Rm. 4N110.

8/26 Dr. David Lichstein, Israel. Sponsor: Dr. David Rodbard, Laboratory of Theoretical and Physical Biology, NICHD, Bg. 10, Rm. 8C312.

8/27 Dr. Jean M. Delga, France. Sponsor: Dr. John Bennett, Clinical Mycology Section, NIAID, Bg. 10, Rm. 11N210.



Dr. Yohannes W. Yesus recently completed a 6-month assignment in the National Library of Medicine's Lister Hill National Center for Biomedical Communications, where he assisted in development of a training module on major trauma protocol for the artificial intelligence expert system in hemostasis known as AI-COAG. The system is designed to help meet the needs of health care professionals in the area of human hemostasis. Dr. Yesus will return to the University of Missouri, where he is associate professor of pathology, director of the blood bank, and consultant to the hospital in clinical pathology.

Shopping Spree

R&W is planning a shopping spree to Reading, Pa. on Friday, Nov. 1. Buses will leave Bldg. 31C at 7 a.m. sharp and leave Reading at 4 p.m. The cost is \$13. Sign up at the R&W Activities Desk, Bldg. 31. □

When I asked Sir Alexander Flemming about his views on research his reply was that he was not doing research when he discovered penicillin, he was just playing.—W.I.B. Beverage

'EYE'*(Continued from Page 1)*

special nerve circuits in the brain, the pineal gland produces melatonin rhythmically—large amounts at night and small amounts during the day.

Chemicals in the retina—the wall of cells located at the back of the eye—convert light into signals that travel along nerve pathways to the pineal gland. These signals influence the gland's production of melatonin. The hormone then triggers changes in the function of reproductive glands and organs in animals that reproduce only at certain times of the year.

As daylight increases from spring to autumn, the different amounts of melatonin produced cause dramatic physical and behavioral changes: bucks grow new antlers or lose their old ones, some rodents change their coat color, and many animals get the urge to migrate or breed.

Mood and Melatonin

The role melatonin plays in the human is less well established than in animals. Certain studies have linked the hormone to a form of depression called seasonal affective disorder, or SAD, that begins in autumn and lasts through winter.

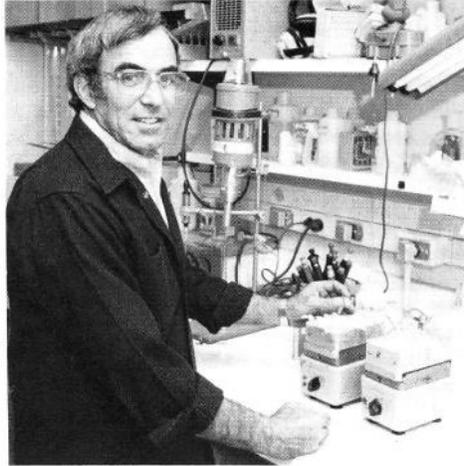
In experimental therapy, SAD patients in autumn and winter are exposed to bright lights that imitate the amount of light in spring and summer. Although some SAD patients improve with this therapy, researchers are unsure whether the improvement is directly due to changes in the pineal gland's production of melatonin.

Although animal studies have linked the eye and light to the pineal gland, interest in the similarities between the pineal gland and the retina has been slow to develop. In humans, indeed all mammals, the gland itself appears to have no direct light-sensing ability. In fish, birds, and reptiles, though, it acts as a primitive eye, sensing light and dark.

Common Substances and Functions?

Comparing the anatomy and function of the two organs across species, scientists began to suspect that the pineal and the retina are strongly linked. Proteins once thought to be present in only one of the organs, for example, are being found in the other as well. So-called retina proteins involved in light processing—rhodopsin, transducin, retinol-binding protein, the S-antigen, and rhodopsin kinase—have recently been found in the pineal glands of some cold-blooded animals. The glands of these animals, including fish, reptiles, and amphibians, are directly sensitive to light.

Likewise, melatonin, once thought to be



Dr. Klein

unique to the pineal gland, has also been found in the retina. While the functions of these substances in their "native" tissues have been well studied, scientists know little about what melatonin does in the retina or what rhodopsin kinase does in the pineal gland.

Many of the visual enzymes found in the pineal gland, such as transducin, the S-antigen, and rhodopsin kinase, are—in the eye—part of a process called transduction that converts light into neurochemical signals. These signals travel from the retina along nerve pathways to the brain, providing information about the image.

Transduction has preoccupied retina scientists for many years. Their work will be invaluable to researchers in the pineal camp who are studying the possible role of transduction enzymes in the pineal gland.

The enzyme rhodopsin kinase, for example, in the eye adds phosphate molecules to the light-sensitive protein rhodopsin, thus regulating a chain of biochemical events in the seeing process. Because rhodopsin kinase has also been found in the pineal gland, Dr. Klein and his colleagues are looking in that gland for a molecule with chemical properties similar to light-sensitive rhodopsin.

"Our job as physiological chemists is to figure out what these retina proteins are doing in the pineal gland," says Dr. Klein. "If they didn't have a function, they probably wouldn't be there."

Collaborating with Dr. Robert Somers of the National Eye Institute, Drs. Klein and coworker Tony Ho will mix rhodopsin kinase isolated from retina with pineal cell membranes. If the pineal cells contain rhodopsin, or a molecule like it, the scientists will find it by using radioactive "detector" molecules. According to Dr. Klein, a rhodopsin-like molecule in the pineal gland could be a membrane receptor that regulates neurochemical events in much

the same way that rhodopsin regulates vision signals in the eye.

Evolutionary Link?

Transduction enzymes in the pineal gland strongly suggest an evolutionary link between the retina and the pineal gland, says Dr. Klein. "It is now my view that the pineal gland—the so-called third eye—was the first eye. The primitive visual organ was a single 'eye' that had only to convert light into chemicals. The retina and bilateral vision developed later on," he said.

Scientists have long noted that the process of development mirrors evolution. During fetal development, both the retina and the pineal gland arise from common embryonic cell layers. Although at birth, pineal cells in mammals appear to have no light-sensing properties, studies have detected such properties in pineal cells from fetal rats.

Like the pineal gland, the retina produces melatonin rhythmically. At about the same time the retina stops producing melatonin, elongated cells called rod cells begin a process called disc shedding, in which the end of the cell repeatedly drops off like slices cut from a banana. According to Dr. Paul O'Brien, the retina's rhythmic production of melatonin may control cyclic disc shedding.

Exchanging Ideas

By exchanging ideas, the two groups of scientists have begun to share tools with which to study the genes that control the production of certain enzymes in the pineal gland and retina. From retina cells, the team is isolating a portion of the gene that encodes the S-antigen, a protein strongly implicated in an inflammatory eye disease called uveitis. In this potentially blinding condition, the body's immune system, which normally attacks foreign invaders such as bacteria and viruses, turns against its own tissues, in this case the cells of the eye.

Although the S-antigen has been found in the pineal gland too, its function in that organ is not yet known. Using probes made from pieces of DNA, the scientists are looking for similarities in the retina and pineal S-antigen gene.

These experiments may tell whether the gene in both tissues is identical, or whether it has changed during evolution. Comparing the arrangement of the amino acid subunits of the S-antigen can also provide clues to when two eyes and bilateral vision developed from a single light-sensing organ. □

Life cannot wait until the sciences may have explained the universe scientifically . . . Life is fired at us point blank.—Jose Ortega y Gasset

New Cell-Culture Patented by NIH Scientists Secretes Anti-Hemophilia Clotting Factors

A cell-culture derived from the adrenal medulla gland of cows has become a useful research tool for studying the function of the adrenal gland and may also have clinical implications in the treatment of hemophilia A.

Dr. Harvey Pollard and colleagues, Drs. Richard L. Ornberg, Peter I. Lelkes and Eli Heldman from the National Institute of Arthritis, Diabetes, and Digestive and Kidney Diseases and Drs. Moussa B.H. Youdim (USUHS), and Dipak K. Bannerjee (NIDR), recently patented an endothelial cell line that forms an enormous network of capillary-like structures and secretes Factor VIII:C, a blood clotting factor missing or non-functioning in 80 percent of this country's hemophiliacs.

Although endothelial cells (flat cells lining the blood and lymphatic vessels and the heart) are known to form capillary structures, this is the first time that capillary-like structures of such size have been shown in culture.

In addition to forming capillaries, which of themselves are of great importance in the physiology of the body, it appears as that these cells also have specific biochemical and endocrine functions of their own.

The cells are able to grow on plastic cultureware without the special growth factors needed by other endothelial cells, leading the investigators to speculate that they make their own essential components required for growth and differentiation.

Adrenal Gland Key

The chemical, structural and metabolic properties of these cells may prove to be impor-

tant for understanding the function of the adrenal gland.

Production of Factor VIII:C by these cells might also prove to have a practical medical value.

In increasingly frequent situations, hemophilia patients develop antibodies against Factor VIII:C obtained from blood donors, and must use Factor VIII:C from animal or other non-human sources. In addition, donor Factor VIII:C may expose the hemophiliacs to viruses found in human blood products like those that cause hepatitis and AIDS.

Alternative Source

Dr. Pollard therefore hopes that the endothelial cell culture will eventually be able to produce as much Factor VIII:C as that obtained from human blood donations, without the risk of viral contaminants.

Recombinant DNA-produced Factor VIII:C, while not a source of viruses, presently is produced only in small quantities. Thus for the present a variety of Factor VIII:C sources may be needed in addition to the recombinant materials.

Although Dr. Pollard's group is also interested in cell lines from human adrenal glands, use of non-human Factor VIII:C for human disease has become a real therapeutic alternative with successful recent advances in purification methods.

If further research proves it feasible, large-scale production of endothelial-produced Factor VIII:C may provide a viable addition to current therapies.—**Linda Stalvey** □

DR. FINERTY

(Continued from Page 1)

Institute of Allergy and Infectious Diseases. He joined NIAID in 1966 as a staff fellow in the Laboratory of Germfree Animal Research and became a senior investigator in 1968. His research interests have centered on the biologic effects of immunodeficiencies on subsequent infectious pathology. During the past 3 years he served as acting branch chief in the Immunology Extramural Program of NIAID.

A native of Newport, R.I., Dr. Finerty received his A.B. at Providence College in Rhode Island. He earned his M.S. in microbiology at Northwestern State University of Louisiana and his Ph.D. in microbiology at Louisiana State University.

Numerous Papers

He is the author of numerous papers on immunology and parasitology. Dr. Finerty is a member of Phi Kappa Phi and other professional societies. In addition, he serves on the editorial board of *Infection and Immunity* and reviews manuscripts for a number of publications including *National Geographic Magazine*.

For the last 10 years, Dr. Finerty has taught a course in immunology of parasitic diseases through the Foundation of Advanced Education in the Sciences. He has also taught management in the NIH training program and continues to teach sailing at the NIH sailing club. □

Anyone who spends money on a psychiatrist should have his head examined.—Samuel Goldwyn



Twenty member agencies of the National Health Council sent representatives to NLM on July 12 for an all-day visit of tours and briefings. Among representatives pictured here are executive directors of the health agencies, legislative assistants, managers of health policy issues, research librarians, and educational analysts of such organizations as the American Cancer Society, Adventist Health Network, AMA, American Public Health Association and several others. The program was coordinated by Frances Humphrey Howard, special assistant to the NLM associate director for Extramural Programs (first row, far left).



September 9-10, 1985
Bethesda, Maryland

Sponsored by the
Division of Kidney,
Urologic and Hematologic
Diseases, National Institute
of Arthritis, Diabetes,
and Digestive and Kidney
Diseases

Conference on
**Cell/Tissue Culture in Renal
Research**

Dr. Chester Emmons, Medical Mycologist, Dies; World Authority on Fungal Diseases

Dr. Chester W. Emmons, distinguished expert in medical mycology, died at his home in North Carolina on August 5. He had been with the National Institute of Allergy and Infectious Diseases for 30 years prior to his retirement in 1966. He was head of the Medical Mycology Section of NIAID's Laboratory of Infectious Diseases.

During his 30 years as a research scientist at the National Institutes of Health, Dr. Emmons became a world authority on fungi and on fungal diseases. He was a leader in the field of experimental mycology.

His research accomplishments included the first identification of a fungal infection in desert rodents (known in humans as coccidioidomycosis, or Valley Fever), a serious disease problem in the Southwest; original research in establishing the importance of histoplasmosis; the first isolations of *Histoplasma* and *Cryptococcus* from their natural habitats; isolation and description of new fungal disease agents; and in his last years, his work on antibiotic treatment of fungal diseases.

Conclusive Evidence

His laboratory reported some of the first and most conclusive evidence of the usefulness of the drug, amphotericin B, one of the first antibiotics to be used successfully for the treatment of a number of systemic fungal diseases. It is still the drug of choice in the treatment of most systemic fungal disease.

After his retirement, Dr. Emmons lived in Phoenix, Ariz., for nearly 10 years prior to moving to North Carolina. While in Phoenix, he lectured periodically at the University of Arizona, at Tucson, as a visiting professor. He revised his widely used text book, "Medical Mycology," for the third time. Dr. Kyung Joo Kwon-Chung, research microbiologist with NIAID's Laboratory of Clinical Investigation, was a co-author on this text. It was Dr. Emmons who selected Dr. Kwon-Chung as a visiting fellow with NIAID just prior to his retirement.



Dr. Chester W. Emmons

Dr. Kwon-Chung's initial discovery in 1970 of the sexual reproduction cycle of *Histoplasma capsulatum*—the fungus that causes histoplasmosis—gave new impetus to the study of this disease. She said she would like to "follow in the footsteps" of Dr. Emmons, whom she and many other scientists consider to be the "founding father of modern medical mycology."

Innovative Mind

Many other scientists worked in Dr. Emmons' laboratory at NIH, including Dr. John Bennett, currently head of the Clinical Mycology Section in NIAID's Laboratory of Clinical Investigation.

According to Dr. Bennett, "Dr. Emmons had the inspiring combination of a broad knowledge of the biologic sciences, a critical, innovative mind, and a gentle, humble approach to his colleagues."

In addition to his wife, Florence, he is survived by five children, nineteen grandchildren, and one great grandchild.

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DR. MA

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the minority populations. (China has 55 ethnic minorities.)

The venereal disease eradication program was started among the minorities whose health circumstances were even poorer than that of the general Chinese population.

Dr. Ma and his colleagues taught the young members of minorities the necessary medical knowledge to care for themselves and their own people and to deliver basic medical care where needed.

After treatments and surveys to detect improvements in the disease rate, China established national regulations, Dr. Ma said, requiring health examinations for people before they could work in factories, enter college or get married.

While declining to prescribe how America should cope with venereal disease based on his experiences in China, Dr. Ma did praise what he called the "Tripod Medical Health Service" for China.

This, he said, consists of joint efforts by barefoot doctors, traditional Chinese medical practitioners and physicians trained in Western medicine.

Dr. Ma also emphasized the importance of auxiliary and community people trained to perform specific short-term health tasks as well as the dedication, compassion and devotion of health professionals not solely motivated by personal gain.

Dr. Ma, as the (former) chief of staff of the Institute of Dermatology and Venereology of the Chinese Academy of Medical Sciences, has also been highly active in Chinese efforts to eliminate leprosy from China.

He indicated there are only about 100,000 current cases of leprosy in China.

Educated at the University of North Carolina, Dr. Ma returned there more than a decade ago to accept that university's Distinguished Service Award. (His Chinese name in English translates as "Virtue from Overseas.")

Dr. Ma's work against leprosy in China continues in his role as a consultant to the Ministry of Health in Beijing. □

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