

# The NIH Record

U.S. Department  
of Health  
and  
Human Services

March 27  
1984  
Vol. XXXVI  
No. 7

National  
Institutes  
of  
Health

## Symposium on Animal Use in Research Slated Cancer Prevention Awareness Drive Launched: Secretary Heckler Stresses Diet, No Smoking

The National Institutes of Health has scheduled a 2-day national symposium on "Imperatives in Research Animal Use: Scientific Needs and Animal Welfare." It will begin 9 a.m. Wednesday, Apr. 11, in the National Academy of Science Auditorium (2100 C Street, N.W.) in Washington, D.C.

The purpose of the symposium—as the inaugural event in a comprehensive educational program—is to build a wider consensus among the scientific community and general public concerning Public Health Service policies for the humane care and use of research animals.

More than 600 scientists and concerned members of the public from throughout the United States will attend.

Speakers at the first session will focus on the rationale for involving animals in research. Dr. Donald S. Fredrickson, vice president of the Howard Hughes Medical Institute, and former NIH Director, will be the keynote speaker.

Clinical applications of recent animal research will be illustrated by physicians and their patients who have benefited from animal studies. This panel will be moderated by

(See ANIMALS, Page 10)

## New Virus Uncovered as Cause of SAIDS By Science Teams From NINCDS/U. Cal.

A new virus that causes an often fatal monkey disease called simian acquired immune deficiency syndrome, or SAIDS, has been identified by a team of scientists from NINCDS and the University of California at Davis.

The investigators used the new virus, which was isolated from the blood of diseased monkeys, to transmit SAIDS to healthy rhesus monkeys.

SAIDS resembles human acquired immune deficiency syndrome, or AIDS, the lethal disease that primarily affects male homosexuals and intravenous drug abusers in the United States.

In a process that scientists believe may be similar to the destructive process in AIDS, SAIDS disables the monkey's immune system causing victims to die from malignancies or infections they would normally fight off.

"An understanding of the monkey disease may be particularly important for learning about human AIDS," says Dr. John L. Sever,

Reduced smoking and improved diet—including more fiber and less fat—are two key changes in American lifestyle that the National Cancer Institute says could help cut cancer deaths in half by the year 2000.

Health and Human Services Secretary Margaret M. Heckler, in announcing NCI's new Cancer Prevention Awareness Program on Mar. 6, said, "Too few Americans realize the simple truth that cancer is usually caused by the way we live, and its risks can be reduced by the choices we make."

Mrs. Heckler said at least 95,000 lives a year could be saved through cancer prevention. This figure represents about half of NCI's new goal of reducing cancer deaths by 200,000 by the turn of the century.

Some 75,000 lives could be saved by less smoking; another 20,000 lives could be saved through improved use of cancer treatments.

Only a decade ago, scientists understood little about the role personal habits and the environment played in causing cancer, and Americans had little information on what they could do to prevent cancer.

Today it is known that up to 80 percent of cancer cases may be linked to "lifestyle and

chief of NINCDS's Infectious Diseases Branch. "Right now there is no animal model for AIDS—no one has been able to transmit human AIDS to experimental animals for study."

Dr. Sever heads the Institute's SAIDS research team, which also includes Drs. Maneth Gravel and William T. London.

Also collaborating in the discovery were scientists from NIAID, St. Jude Children's Research Hospital, Memphis, Tenn., the NCI Frederick Cancer Research Facility, Frederick, Md., and the University of California at San Francisco. Partial support for this research was provided by an inter-agency agreement between NHLBI and DRR.

The group recently reported in *The Lancet* and *Science* that they had identified the new SAIDS virus as a type D retrovirus.

A related retrovirus, classified as type C, causes a T-cell leukemia in humans. Some scientists suspect the type C virus as the cause of human AIDS. (See SAIDS, Page 11)



HHS Secretary Margaret M. Heckler and NCI Director Dr. Vincent T. DeVita, Jr. answer reporters' questions during the Mar. 6 press conference on cancer prevention awareness in the ACRF auditorium.

environmental factors," Mrs. Heckler said.

"We now know that the most important causes of cancer are the ones we can control or influence," she said. "We are not always at the mercy of our environment."

The new Cancer Prevention Awareness Program is a major Federal effort to increase public awareness of the possibilities for cancer prevention, challenging Americans to learn what they can do every day to control their own cancer risks.

Based on the most recent scientific information (See CANCER, Page 12)



(SHEEHAN SPEAKS, See Page 3)

# The NIH Record

Published biweekly at Bethesda, Md., by the Editorial Operations Branch, Division of Public Information, for the information of employees of the National Institutes of Health, Department of Health and Human Services, and circulated by request to writers and to researchers in biomedical and related fields. The content is reprintable without permission. Pictures may be available on request.

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## Training Tips

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

Technical	Course Starts	Deadline
Labor Relations for Personnel Specialists	4/10	3/23
Letterwriting for Secretaries	5/6	4/25
*Proofreading	5/30	5/18
Principles of Editing	6/5	5/17
Self Assessment & Career Options (GS 1-8 or WG equivalent)	5/22	4/24
Self Assessment & Career Options (GS 9-12 or WG equivalent)	5/24	4/26
<i>Executive, Management and Supervisory</i>		
Manage Your Meetings	5/4	4/19
The Judiciary, Media, and Interest Groups:		
Influencing Public Policy	4/26	4/10
Making Time Productive	5/31	5/15
Effective Supervision	6/4	5/21
Effective Communication	6/12	5/25
Economics, Challenges		
Perspectives and Issues	6/21	4/23
Planning for Prevention and Results	6/27	6/12
<i>Administrative Systems</i>		
Delpro (Delegated Procurement for new Delpro users only)	5/21	5/7
Stock Requisition	5/11	4/27

\*Course ends June 25.

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

## Federal Women's Groups Sponsor Career Day Program on April 11

"Stairway to Career Success" is the theme for this year's Career Day program sponsored by the NIH Federal Women's Program and Women's Advisory Committee. The program will be held on Apr. 11, from 11 a.m. to 3:30 p.m. in the ACRF Amphitheater of Bldg. 10.

Information areas to be featured at the program include career development, career pathways, educational opportunities, and employee benefits.

An important feature of the Career Day is an opportunity to interview NIH staff. Employees representing 24 job series will be available to answer questions and provide expert information about their occupations.

Organizations from within NIH also will be represented. Training information and career advice will be available from DPM's Development and Training Branch staff. Personnel from the Recruitment and Employee Benefits Branch and the Employee Assistance Program will provide information and answer questions about their programs throughout the day.

Representatives of 24 educational institutions and 30 professional associations in the metropolitan area have been invited to attend. In addition to the daytime program, there will be an opportunity for employees to talk with representatives of the professional organizations from 4 to 6 p.m.

The Apr. 11 Career Day program is part of a continuing endeavor to provide information on expressed issues of concern to women.

Career Day is a forum for all NIH employees to obtain information about career options.

Sign language interpretation will be available. If accommodation for other handicapping conditions is needed, call the Federal Women's Program on 496-2112.

For more information about Career Day, contact the WAC representative in your Bureau, Institute, or Division; Fu Temple, Career Day Committee chair on 496-7219, Claire McCullough, Career Day Committee cochair on 496-3670; or Donna Lenkin, WAC chair on 496-2832. □

## No NIH Income Tax Assistance

NIH will not provide assistance to employees in preparing 1983 income tax returns. However, income tax forms are available in Bldg. 31, in the corridor across from Rm. B1W30 (Recreation and Welfare Store) and in the Westwood Bldg., Rm. 434.

The supply of these forms is limited; therefore, employees are asked to take only those forms needed for their personal use.

Following is a listing of telephone numbers employees may use for assistance when preparing income tax returns:

IRS, Federal, 488-3100;  
Montgomery County (State and local), 949-6030;  
Prince George's County (State and local), 568-0222;  
Alexandria, Va. (State and local), 838-4570;  
Arlington, Va. (State and local), 691-2661;  
District of Columbia (D.C.), 727-6103. □

## Hayfever Sufferers Still Needed

The Allergenic Products Branch, Office of Biologics Research and Review, FDA, is seeking additional volunteers who have spring hayfever.

Volunteers will be asked to complete a daily symptom diary during the spring hayfever season.

Following completion of the diaries, volunteers will be skin tested with allergenic extracts of selected pollens and molds prevalent during the spring hayfever season to determine the association between the quantity of atmospheric allergens, severity of symptoms and degree of skin sensitivity to the allergens tested.

Interested individuals should contact Dr. Paul C. Turkeltaub, or Dr. Charles O. Roberts, 496-4204, to obtain a hayfever questionnaire and additional information. □



Susan Gordon and Walter Miguez of the NIH R&W Toastmasters Club took first-place honors in the club speech contests held Mar. 2 and Mar. 9. Ms. Gordon (l), Office of Information, NHLBI, won the club evaluation contest Mar. 9. Here she is presented the first-place trophy from toastmaster-of-the-day Padman Sarma. Mr. Miguez (not shown), a researcher with the Armed Forces Radiation Research Institute at the National Naval Medical Center, won the serious speech contest Mar. 2 with his "Nut Bread—With Plenty of Nuts."

## Science Writing-Editing Course

A course on "Introduction to Scientific Writing and Editing" given by Dr. A. J. Bachrach, director, Environmental Stress Program Center of the Naval Medical Research Institute, is being offered to interested NIH personnel.

The course will offer a general discussion of writing techniques and style for scientific writers and editors with specific topics presented by guest lecturers.

The course will be held in the Commanding Officer's Conference Room at the Naval Medical Research Institute in Bethesda every Wednesday, Apr. 4 through May 23, from 2 to 4 p.m.

For information and registration, call Mary Wagner, 295-0112. □

## Dr. George Sheehan Says:

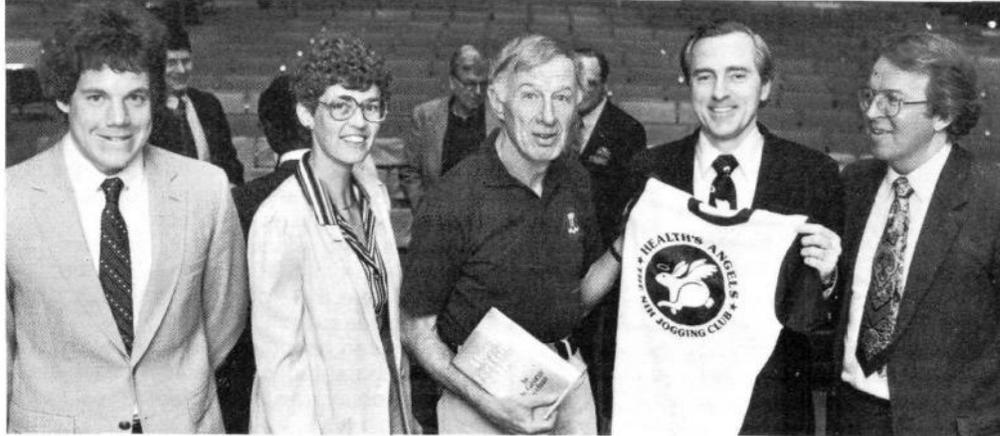
# Fitness Program Can Transform You, Creating A New Self to Practice the Art of Living

"Fitness lends a background to sanity, serenity and good humor," said Dr. George Sheehan, quoting philosopher William James during his speech on running Mar. 15 in Masur Auditorium.

Dr. Sheehan, 63, a cardiologist from Red

gave him unexpected moments of peace, insight and joy.

One of Dr. Sheehan's main themes of personal philosophy is that through regular fitness activities, previously sedentary people become "good animals"—more in touch with



After his speech, Dr. Sheehan was presented with an official NIH Health's Angels Jogging Club T-shirt. L to r are NIH Fitness Center employees Tom Klein, assistant director; Janet Vizard, director; Dr. Sheehan; Dr. French Anderson, NHLBI, representing NIH, and Randy Schools, R&W General Manager.

Bank, N.J., popularly known as the "guru of joggers" and the author of five running books, spoke to over 300 listeners during an R&W-sponsored event for National Nutrition Month.

"Most of us are living lives inferior to ourselves—the key to a successful life is to find the athletic experience that suits you," he said. "You don't have to be a motor genius to be an athlete; all you need is the device. You must find an arena to be heroic in... use yourself up and bring yourself back," he said.

Dr. Sheehan offers a simple formula for starting a fitness program: 30 minutes of motion four times a week either walking, running, swimming, cycling, or skipping rope. These activities use large muscle groups and are continuous as compared with stop-and-go sports like tennis.

### Selecting a Sport

As for selecting a sport, he advises taking up an activity you enjoyed as a child, since, "the same thing will probably appeal to you now," he said. He recommends the intensity of your exercise be comfortable, somewhere between light and somewhat hard. As a guideline for setting your pace, he offers the talk test: "If you're too out of breath to keep up a conversation with an exercise partner, slow down a bit," he added.

Dr. Sheehan has explored the link between fitness and a creative, successful life. He started running at age 44 to stay in shape in the wake of a tennis injury. He was soon hooked on the new sport, trimming his weight from 160 pounds to 136, which he had weighed 25 years earlier as a miler on the Manhattan College track team.

Besides changing his physique, Dr. Sheehan says that running unlocked reservoirs of creativity and mental energy that

their real needs, emotions and instincts. Without thinking about it, people tend to eat properly, manage their time more efficiently, recognize stress symptoms and get the sleep they need. "By becoming good animals, we perform better in every one of our other roles," he said.

"Running is my No. 1 priority, because I see it as the hub of the wheel. Everything else in my life works because of running. My entire environment, internal and external, is monitored in relation to effect on my performance," he said. He calls himself runner-doctor, runner-writer, runner-philosopher.

The athletic experience, he says, starts with total physical participation to "lose the self"—to learn what the body is and what it can do—to feel the confidence and pleasure from just being physical.

For Dr. Sheehan, the key to successful living is participating in a complete athletic experience, a fitness program that combines playful, enjoyable exercise with occasional doses of all-out sports competition. "Play an hour a day," he said. "When you are playing, the mind can roam free with no fear of failure, and a faith that all will be well.

"You clear your mind of day-to-day details and see what is really important. It's a way to step back from life for an hour, which becomes a source of power, energy, and creativity for the other 23 hours," he added.

But without an occasional challenge and opportunity to test your limits, a fitness program that's all play loses its flavor, and "personal growth is impossible," he said. Enduring physical discomfort and pushing to new heights of performance is invaluable, he claims, because "this is the experience of yourself as an achiever, as a hero. It plants the glad discovery of your full potential deep in your subconscious," he added.

## Join Parklawn Classic April 27: Volunteers Needed

"Walk, Run, or Watch the Fun" is the theme of the 1984 Parklawn Classic, a PHS-wide health promotion event set for Friday, Apr. 27. NIH needs volunteers to help at the finish line as soon as possible. No experience is necessary. Contact Bill Padgett, 496-5360, for more information.

For the second year in a row, the traditional 5-Mile Run—an annual event since 1976—will be combined with a 2-mile Health Walk and other activities designed for employees at all fitness levels.

Assistant Secretary for Health Edward N. Brandt, Jr., will join leaders from each agency in encouraging staff to improve their health through physical exercise.

The Race/Health Walk will begin at noon on the south side of the Parklawn Bldg., rain or shine. All race finishers will receive a Classic T-shirt, and all walkers will be awarded commemorative ribbons.

Preregistration fee for the race is \$5 (with higher late fees). The Health Walk is free.

This year's race has been expanded to include team competition along with the men's open, women's open, men's masters (40 and older), and women's masters categories. Each team must consist of two men and two women from the same agency who register together as a team.

Winners in all five categories will receive trophies, and medallions will be awarded to place finishers. For further information on team competition, contact Dan Calvin, 443-1126, or Bill Padgett, 496-5360.

Free round-trip transportation to the Classic will be provided for staff in outlying facilities, including NIH, the Center Building, and St. Elizabeths Hospital. For further information, contact Wayne Richey, 443-2516.

Mobility-impaired persons are especially welcome to participate in the Classic events. For further information, contact Cathy Hagerty, 443-4065.

Employees who enjoy coming out to watch the Classic are encouraged to join in the action by serving as volunteers. Workers are needed to help in all phases of the Race/Health Walk from handing out numbers to handing out water to handing out ribbons.

All volunteers will receive complimentary Classic T-shirts. For further information, contact Dan Calvin, 443-1126.

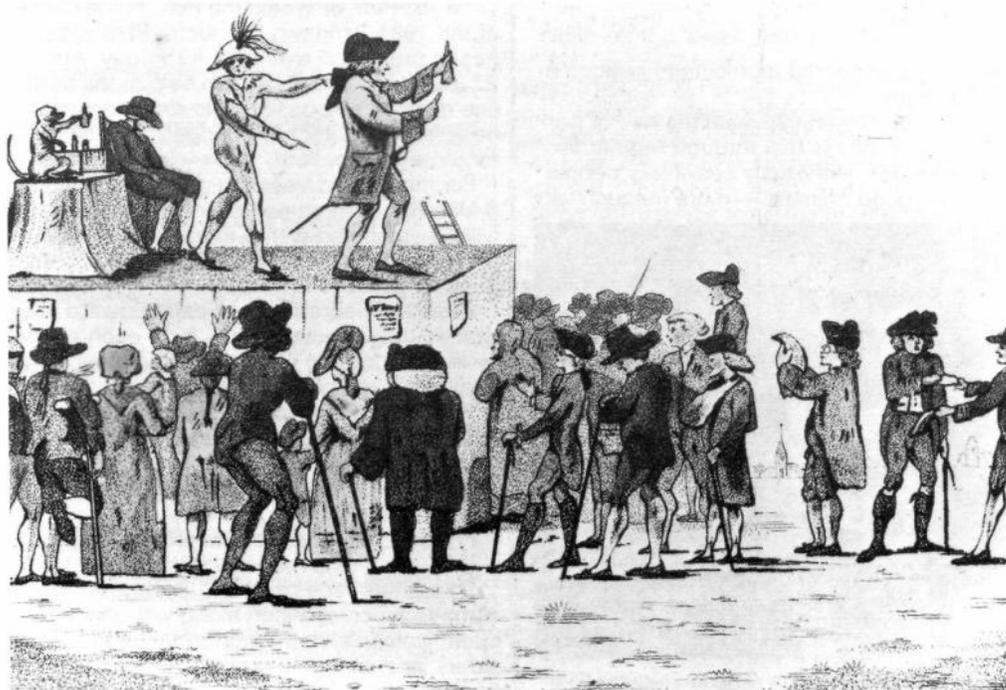
In 1983, approximately 250 runners (led by open winners Jerry Moore, NIH, and Kate Callen, ADAMHA), 850 walkers, and a large crowd of spectators showed that, when it comes to health promotion, PHS employees practice what they preach. □

"In a race you lose all identity with the minor things in life; you're cleansed of the 'bad me,' from the critics in your life, and are reduced to enthusiasm and rapture—to the animal and trying to survive," he said.

"Running is a transforming experience—it's creating a new self to practice the art of living in a different way. It's a new elevation of consciousness. Being an athlete is not something I do an hour or so a day. It is something I *am*. For me, fitness is no longer enough. I must be an athlete," he said.

—Joyce McCarthy □

## Eighteenth Century 'Quacks' Featured In NLM Medicine Show Film



This late-18th century etching, from the National Library of Medicine's History of Medicine Division collection, depicts one of England's itinerant quack doctors who practiced and prescribed from a stage.

These "doctors" were the forerunners of America's snake oil pitchmen with their famous medicine shows. The History of Medicine Division (HMD) has arranged a showing of the film, *Free Show Tonight*, which tells the story of the old-time medicine shows, where entertainment of various types was used as a

vehicle for the sale of patent medicines.

In a particularly lively segment, a group of former medicine show performers recreate their musical and comedy acts and bring to life once more this vestige of the American past.

The 1-hour film will be introduced by John Parascandola, HMD chief. The time and place of the showing are Apr. 6 at noon in NLM's Lister Hill Center Auditorium (Bldg. 38A). □

## Mary Mosser, NINCDS Secretary, Retires After 20 Years

Mary Mosser, secretary to the chief of the office of biometry and field studies at the National Institute of Neurological and Communicative Disorders and Stroke, retired Mar. 20 after nearly 20 years at NIH.

"Mz. Mose," as she is nicknamed, came to NIH in 1965. Her previous Federal service was with the Army at Cranely Point, Va., and with the legal services division of the Department of Agriculture. At the office of biometry and field studies, she held several secretarial positions until 1978, when she was promoted to secretary to the chief.

William Weiss, chief of OBFS, said that Ms. Mosser's "attachment to the work ethic demonstrates the truth of the aphorism about the secretary who holds the organization together."

Ms. Mosser is known throughout the Institute for her effectiveness in directing the office's secretarial staff and administrative functions. According to Mr. Weiss, "her contribution to the successful accomplishment of the objectives of OBFS is no less than that of its scientists."

Ms. Mosser has received three quality awards from NINCDS—in 1975, 1978, and 1981—and in 1983 earned a cash award for outstanding achievement.

She will be honored at a retirement party



**Of Ms. Mosser, OBFS chief Weiss, said: "Her warm, sympathetic, and friendly personality have made the environment of OBFS a more enjoyable place to work for all of its staff. We will all sincerely miss her."**

Mar. 30 at the National Naval Medical Center Officer's Club.

Ms. Mosser is not retiring from the working world, however: she will be a beauty consultant for Mary Kay Cosmetics. She also plans to spend time with her husband, two sons, and parents. □

## Pregnant Women: Avoid Cats and Toxoplasmosis

Pregnant women should be aware of a disease called toxoplasmosis. About three-fourths of women of childbearing age in the United States are at risk because, if they acquire this parasitic disease during pregnancy, it can cause birth defects, spontaneous abortion, or stillbirth.

Fortunately, toxoplasmosis is preventable, according to a new brochure, *Toxoplasmosis*, prepared by the National Institute of Allergy and Infectious Diseases.

Toxoplasmosis is caused by a single-celled parasite, *Toxoplasma gondii*, and is transmitted by the ordinary household cat. While the parasite is fairly common and can infect reptiles and any warm-blooded animal, the cat is the only animal known to shed *Toxoplasma* parasites in its feces.

When cats eat infected birds or rodents, parasites grow in their intestines, causing cats to excrete tiny egg-like capsules known as oocysts for roughly 10 days.

Humans can become infected either by contact with cat feces in the litter box or garden, or by eating raw or uncooked meat from infected animals.

Most people who develop this disease have few or no symptoms. Others may have swollen glands, fatigue, malaise, muscle pain, a fluctuating low fever, rash, headache, or a sore throat. These symptoms generally appear a week or two after infection and gradually subside over a period of 2 weeks to several months.

When acquired during pregnancy, toxoplasmosis, like German measles, can badly damage an unborn child even though the mother-to-be does not notice any symptoms.

Earlier research, largely supported by the NIAID, showed what causes toxoplasmosis and how it is transmitted. Scientists are now investigating the reaction of the immune system during pregnancy, analyzing the chemical makeup of the parasite, and trying new drug treatments which may lead to more sensitive and rapid tests for diagnosing and preventing the disease.

Normally, the best treatment for toxoplasmosis is pyrimethamine (an antimalarial drug) combined with sulfa drugs. Because pyrimethamine can cause birth defects when given during the first trimester, physicians prescribe sulfa drugs alone during pregnancy.

Pregnant women can help prevent toxoplasmosis if they feed the cat only well-cooked meat or commercial cat food; keep the cat indoors so it cannot hunt and eat mice and birds; avoid close contact with the cat throughout pregnancy; have someone else change the cat litter daily; wear disposable gloves and wash hands after working in gardens that cats have access to; wash or cook homegrown foods that may have come in contact with cat feces in the garden; wash hands after touching uncooked meat; and cook meat at 151° (66°C) or higher.

For single copies of the new brochure, *Toxoplasmosis*, write to "Toxoplasmosis/HL," Information Office, National Institute of Allergy and Infectious Diseases, Bldg. 31, Rm. 7A32, NIH, Bethesda, MD 20205; or call (301) 496-5717. —Marcia Doniger □

## Dr. P. De Meyts, Former Fellow at NIADDK, Receives Belgian Science Prize From Queen

Dr. Pierre De Meyts, former postdoctoral and visiting fellow at the Diabetes Branch, National Institute of Arthritis, Diabetes, and Digestive and Kidney Diseases, received the Assubel Scientific Prize from the Queen of Belgium in a special ceremony Mar. 7.

The award is given every 2 years to a Belgian citizen "who, during the last 2 years, has greatly contributed to the development of medical sciences by accomplishments susceptible of preserving the human physical integrity, health, or life."

Dr. De Meyts received the \$5,000 Assubel Prize for his work on fundamental and clinical applications of insulin receptors. He began this work in 1973 as a postdoctoral fellow under the preceptorship of Dr. Jesse Roth.

His collaboration with Dr. Roth also resulted in their sharing the Diaz Cristobal Prize in 1979 presented by the Spanish Diabetes Association at the triennial meeting of the International Diabetes Federation.

Dr. De Meyts received his M.D. degree from the University of Liege Medical School, Belgium, in 1969. His subspecialty is internal medicine with clinical training in endocrinology, diabetes, rheumatology, and renal dialysis.

He is a member of several professional societies both in the U.S. and Europe, has served on journal editorial and advisory



Dr. DeMeyts

boards, has lectured extensively, and has authored 120 scientific articles.

Dr. De Meyts, currently on sabbatical at the Beckman Research Institute of the City of Hope Medical Center in California, works at the International Institute of Cellular and Molecular Pathology, Catholic University of Louvain, in Brussels, Belgium. □

## Sue Burroughs Retires From the NIDR

After working 20 years in the National Institute of Dental Research's Office of the Scientific and Health Reports, Sue Hannon Burroughs retired from her position as public affairs specialist on Mar. 2.

Prior to joining the NIDR in 1964, she



Mrs. Burroughs and Alfred Laoang of NIH's Medical Arts posed with a caricature drawn by Mr. Laoang.

worked part-time for the National Cancer Institute and the NIH Board of Civil Service Examiners from 1957 to 1963.

As public affairs specialist, Mrs. Burroughs maintained contact with newspaper, journal, television, and radio reporters to help publicize NIDR research advances and ensure that the stories on dental research were cor-

rectly interpreted.

She also responded to information inquiries from Congress, the dental community, and the general public and worked on publications, exhibits, audiovisual presentations, and conferences.

Throughout her career, she received numerous forms of recognition, including a Public Health Service certificate for superior work performance and the NIH Merit Award.

Mrs. Burroughs plans to remain in this area and enjoy the home that she and her husband, a mechanical engineer, built to his design on several rural acres in Olney. □

## Biochemistry Instructor Sought By FAES Graduate School

The FAES Graduate School needs one or more instructors to teach Introductory Biochemistry beginning September 1984. The course covers two semesters and meets two evenings a week for 90-minute sessions.

Teaching duties may be divided among several instructors. Anyone interested should contact Lois Kochanski, 496-7976.

The school also welcomes inquiries from anyone interested in teaching other courses in the sciences, arts, languages, etc. □

## NIH Tennis Club to Meet April 4

The NIH Tennis Club will hold its spring club meeting on Wednesday, Apr. 4, at 11:30 a.m., in Bldg. 31A, 1st Fl., Conf. Rm. 3.

## Meeting on Schistosomiasis Planned at Fogarty Center

Schistosomiasis is estimated to affect over 2 million people, mostly in tropical countries of the "Third World."

Prevention of disease due to endemic schistosomiasis would be much easier to accomplish if a human vaccine against the parasites of "snail fever" became available; but how realistic is this goal, and how should research be focused toward its attainment?

To answer these questions, the Fogarty International Center—in cooperation with the Edna McConnell Clark Foundation and the World Bank/UNDP/WHO Special Programme for Research and Training in Tropical Diseases—will bring together 35 U.S. and international scientists for discussions at the Stone House on Apr. 9–11.

Discussions at this conference will center on issues on which there is presently uncertainty or contradictory evidence, in order to formulate plans for definite future studies.

Intramural researchers of the NIAID will be important contributors. Attendance of interested workers and scholars, on or off-campus, will be welcome.

The conference will be opened by Dr. Craig K. Wallace, FIC Director; Dr. William S. Jordan, director, Microbiology and Infectious Diseases Program, NIAID, and Dr. Franz von Lichtenberg, Fogarty Scholar-in-Residence, and summarized and closed by Dr. David Rowe, scientific director, WHO/TDR Programme.

The program provides for reviews of:

- Laboratory animal models of anti-schistosome immunity (Apr. 9, 8 a.m.–5:30 p.m.);

- Living versus defined-antigen experimental vaccines (Apr. 10, 8:30 a.m.–12:30 p.m.);

- Mechanisms of the human immune response to schistosome infection (Apr. 10, 2 p.m.–5:30 p.m.); and

- Current and future studies on human immune protection against the parasite (Apr. 11, 8:30 a.m.–12:30 p.m.).

For more detailed information, and preregistration, contact Nancy Shapiro, Bldg. 16A, Rm. 101, 496-2517. Due to space limitations, it would be helpful to let her know of your planned attendance in advance. □

## NIH Daycare Center Reserves Tickets for Camelot, May 12

The NIH Daycare Center has reserved a block of tickets for Saturday, May 12, evening performance of *Camelot* at the Burn Brae Dinner Theater. The cost, \$22.50, includes show, buffet dinner, tax and gratuity.

Part of the ticket price is tax-deductible as a contribution to the NIH Daycare Center.

For further information, contact Dan Grauman, 496-9093 (day) or 279-8716 (evenings and weekends). □

Announcements will be made regarding membership applications, lessons, singles ladder, flight tennis, team tennis, and a summer tournament.

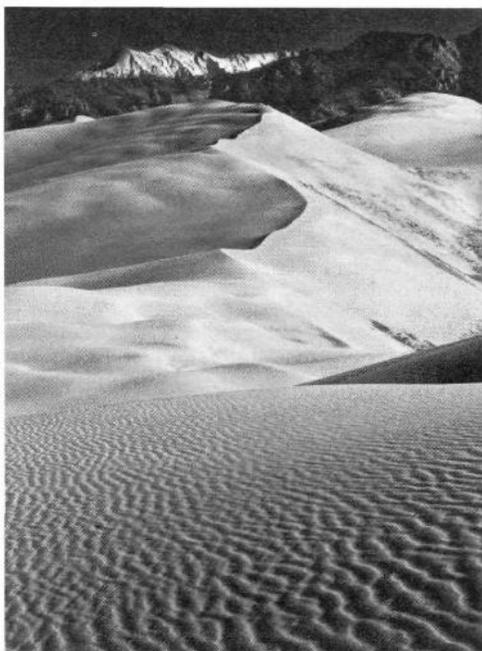
All tennis players are welcome to attend. □

# Winners of NIH Camera Club Competition

First place winners in the three competition categories in the recent 1984 NIH-wide annual photo competition were John Boretos for black and white prints and Joy Richmond for color prints and color slides. Cash awards were presented to the winners and ribbons for honorable mentions.

The photo competition, sponsored by the NIH/R&W Camera Club, was held Mar. 13 in Wilson Hall.

Judges were Thelma Gray, noted area photographer; Robert Bell, well-known nature photographer; and Jeff Baker, photographer for the *Montgomery Journal* newspaper.



Great Sand Dunes by John Boretos

## COLOR PRINTS

- 1st Place "Ropes on Red Ship" Joy Richmond
- 2nd Place "Fishing" John Boretos
- 3rd Place "Model T in Spring" John Boretos

## Honorable Mentions

- "Just Clowning" John Boretos
- "The Wood Shed" John Boretos
- "Tulips at Noon" Catherine Quigley
- "Budding Poppy" Joy Richmond

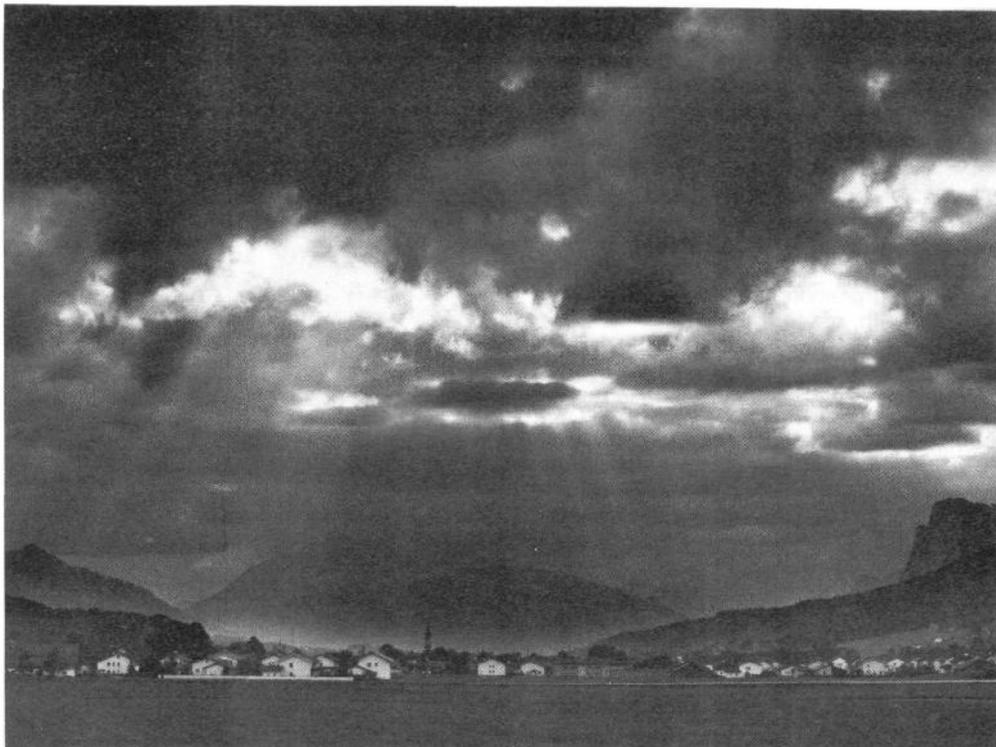
## COLOR SLIDES

- 1st Place "Blue Building" Joy Richmond
- 2nd Place "Forest Fog" Robert Young
- 3rd Place "Orb at Dawn" Tom Waldmann

## Honorable Mentions

- "Peggy's Cove" LeRoy Kerney
- "Fireworks" Lois Kochanski
- "Water Lillies" LeRoy Kerney
- "Boston's Best" Peter van der Ven
- "Scilla" Carol Waldmann
- "Lady Slipper" Carol Waldmann
- "Alpine Climber" Carol Waldmann
- "Mt. Shuksin" Carol Waldmann
- "Red Eye Friends" Elizabeth Early
- "Autumn Leaves" David Strike

The next meeting of the NIH/R&W Camera Club is scheduled for Apr. 10., Conf. Rm. 4, Bldg. 31.



Daybreak—Austrian Village by Robert Young

## BLACK AND WHITE PRINTS

- 1st Place "Great Sand Dunes" John Boretos
- 2nd Place "Day break—Austrian village" Robert Young
- 3rd Place "Strolling" Kenneth Rhodes

## Honorable Mentions

- "Ship Rock" John Boretos
- "Anchors Aweigh" John Boretos
- "Lance" Ronald Harris
- "Visitors 28—Home 0" Randy Boretos
- "Fort Union Twilight" Randy Boretos



Strolling by Kenneth Rhodes

# NINCDS Head Injury Studies Show Promise Of More Survivals, Better Post-Injury Life

The head trauma research program of the National Institute of Neurological and Communicative Disorders and Stroke promises more survivals and better quality of life for head injury victims.

NINCDS supports major studies in diagnosis, monitoring and treatment of head injury. Separate research studies conducted by Institute-supported scientists indicate that:

- The current treatment with hyperventilation could harm patients with low blood flow in the brain;
- A new system of classifying head injuries, based on brain axonal injuries could help predict patient recovery when examined with a CT scan;
- CT scans could be used more frequently to avoid brain-invading devices;
- Rat brains may show why edema in the brain is a delayed reaction; and
- Monitoring the brain's electrical activity may predict whether a person in a coma will improve.

## Hyperventilation

Hyperventilation, giving high doses of oxygen, is the most common therapy for head injury today. But Dr. Thomas Langfitt and his group at the University of Pennsylvania in Philadelphia have found that this form of treatment could be harmful to some patients.

Of 75 head injury patients studied, one group had a higher blood flow to the brain than required for the brain's energy needs but other patients had an abnormally low blood flow.

Dr. Langfitt concluded that hyperventilation, which constricts blood vessels and reduces the flow of blood and oxygen to the brain, would not be harmful to those patients whose usual brain blood flow was excessive. But, the treatment could be dangerous for patients whose brain flow was abnormally low.

## Classifying Head Injuries

Significant progress in classifying head injuries, a development that could lead to improved prediction of patient recovery, has been made by Dr. Langfitt and collaborating scientists in another NINCDS-supported study at the Institute of Neurological Sciences, Glasgow, Scotland.

Using an animal model of head injury, the scientists found that 90 percent of the animals studied could be classified as having diffuse axonal injuries, a tearing of axons throughout the white matter of the brain. Axons are fiberlike projections from nerve cells that help transmit chemical "messages" from the brain to the body.

The Glasgow scientists and two other NINCDS-supported scientists—Drs. Hume Adams and David Graham—collaborating with Dr. Langfitt, further found that diffuse axonal injury in humans could be detected with computerized tomographic (CT) brain scans.

Based on both the animal and human studies, the investigators concluded that the severity and extent of axonal injury determines patient recovery. Evidence of this type of

head injury on a CT scan, they propose, could be used to forecast a patient's recovery.

## Using CT Scan

Dr. Donald P. Becker of Virginia Commonwealth University, Richmond, is using CT scans to study devices that monitor pressure on the brain (intracranial pressure). Dr. Becker's NINCDS-supported research may eliminate unnecessary use of brain-invading devices.

He found that head-injured patients with normal CT scans should be monitored only if they have two of the following characteristics: age over 40, blood pressure reading less than 90, and abnormal physical movements. Pressure on the brain should always be monitored if a patient's CT scan shows any abnormality.

## Intracranial Pressure

Edema, a dangerous collection of fluid within the brain triggered by the body's release of several harmful substances, is one cause of increased intracranial pressure after head injury.

NINCDS grantee Dr. Robert Fishman of the University of California, San Francisco, is examining rat brains in an effort to understand why edema is a delayed reaction, occurring hours or days after head injury. This research may someday lead to an effective treatment for traumatic head injuries in humans.

Another NINCDS-supported scientist, Dr. Howard M. Eisenberg of the University of Texas, Galveston, has improved a technique to monitor electrical changes in the brain. He found that certain indicators of the brain's electrical activity can be used to predict whether a person in a coma will improve.

Dr. Eisenberg is also studying brain injury in children. He found this year that children with severe brain injury have a slower rate of improvement than adults with similar injuries.

## Post-Trauma Brain Functioning

A relatively new brain-imaging technique called positron emission tomography (PET) is helping scientists learn about changes in brain function after injury. This experimental technique, whose development has been funded by NINCDS, is already used in research to identify areas of specific brain function in normal subjects, locate the origins of epileptic seizures and evaluate brain tumors.

Another brain-imaging technique, called 2-deoxyglucose autoradiography, last year permitted the first study of how specific brain regions in animals function after head injury. This research, conducted by NINCDS-supported scientist Dr. Ronald Hayes, may help explain the prolonged loss of consciousness known as coma.

Dr. Hayes found decreased brain activity in most areas of the animals' brains, except in one small region where activity was increased. Dr. Hayes speculates that this increased activity may somehow trigger coma-like states in animals, and that a similar increase in activity in a certain part of the human brain may be connected to human coma.

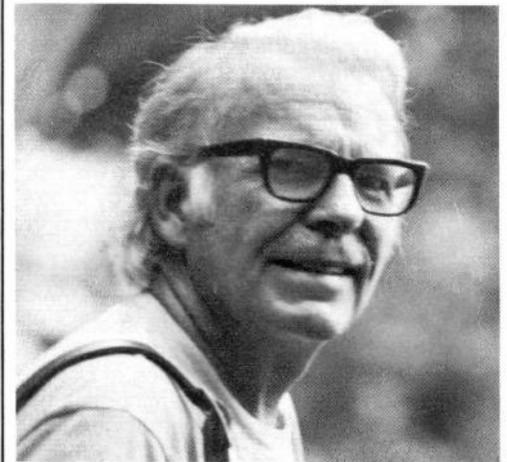
Scientists are also improving their ability to predict the outcome of head injuries as a result of information obtained through the NINCDS-sponsored National Traumatic Coma Data Bank where investigators learned that children were more likely than adults to have been injured from falling or from being struck by an automobile.

## Survival Better for Children

The scientists also reported that children survived their head injuries more often than adults.

Three of these centers have been awarded research contracts for the main phase of the Traumatic Coma Data Bank study from which data is expected to help scientists determine the factors that influence the survival of head injury patients and the quality of life survivors can expect. □

## Herbert C. Stickney Dies; Former NIGMS Employee



Herbert C. Stickney

Herbert C. Stickney, former administrative officer of the National Institute of General Medical Sciences, died of a heart attack Feb. 10 at his home in Bethesda. He was 62.

Mr. Stickney joined NIGMS in 1965 as the administrative officer and remained in that position until his retirement in 1978. His NIH career began in 1959 in the Personnel Management Branch, and during the 6 years that followed, he served as personnel representative of the Clinical Center, the then National Institute of Neurological Diseases and Blindness, the National Institute of Allergy and Infectious Diseases, and the Division of Research Facilities and Resources (now DRR).

He received a bachelor's degree in psychology from George Washington University and a master's degree in public administration from American University.

He is remembered by his NIGMS friends as having a great love for nature and photography. During his retirement, Mr. Stickney did some professional photography, but spent most of his time traveling and camping across the country, always with his camera to record the sights that meant so much to him.

He is survived by two daughters, Shennan of San Francisco and Loren of Richmond, and two sons, Eric and Eatin, both of San Francisco.

## Carcinogen-DNA Bindings Show Promise As Predictors of Cancer Susceptibility

Red lights flash and bells clang as you approach the railroad crossing. The lights and bells are not dangerous themselves. They simply warn that continuing across the tracks in the next few moments could be extremely unhealthy.

Scientists continue to search for methods of identifying similar "warning signals" in human cells that can alert them to the presence of carcinogens and toxic substances.

At the January 25 meeting of the Interagency Collaborative Group on Environmental Carcinogenesis (ICGEC), Dr. Miriam Poirier, a research chemist with the National Cancer Institute's Laboratory of Cellular Carcinogenesis and Tumor Promotion, presented data on the use of immunoassays to measure chemical carcinogens bound to DNA molecules in organisms exposed *in vivo*.

Dr. Poirier said researchers in her lab are developing a technique to detect the presence of chemical carcinogens bound to DNA molecules. These additions, or adducts, are indicators of previous exposure to carcinogenic agents.

She said results from some animal experiments show that the level of carcinogen-DNA adducts present correlates well with the risk of developing cancer. This technology is now being used to explore such a relationship in the human population.

The immunoassays developed by Dr. Poirier measure the presence of carcinogen-DNA adducts by using antibodies specific for those adducts. She said the approach can be used to probe for the presence of DNA adducts induced by various carcinogens.

Most of the current experimental studies use antibodies produced in rabbits, but Dr. Poirier said similar work using monoclonal antibodies is also being conducted.

She said the technique requires antibodies with high binding affinities and precise specificity, and allows for very sensitive immunoassays. The assays themselves can be performed rapidly, are easily reproducible in the lab, and are relatively inexpensive.

Dr. Poirier briefly recapped results of a study which used antibodies to probe for the presence of benzo[a]pyrene-DNA adducts in a small group of lung cancer patients and in-

dividuals with other lung diseases. Benzo[a]pyrene is a ubiquitous carcinogenic hydrocarbon readily produced by the burning of fossil fuels. It is also found in cigarette smoke.

Benzo[a]pyrene-DNA adducts were found in lung tissue from several lung cancer patients in the study. However, it was not possible to draw any conclusive correlation between the smoking history of the patients in the study, and the amount of DNA adduct found.

Dr. Poirier noted that hydrocarbon exposure probably occurs, to some degree, to all individuals, particularly those living in industrialized urban areas.

"Eventually, we believe the immunoassays could be useful in identifying individuals with high cancer susceptibility," she said.

Measuring the level of carcinogen-DNA adducts in an individual's cells would indicate that a chemical carcinogen actually entered the body and reacted at the molecular level.

However, Dr. Poirier thinks at least 10 years of intensive study following well-defined human populations is needed before the usefulness of such an application is established.

Dr. Poirier's group has also made antibodies for cisplatin-DNA adducts. Cisplatin (also known as Platinol, Cis-platinum, and DDP) is one of the most widely used anticancer drugs in the United States today.

The group is excited about the possible relationship between the adduct recognized by the antibody and the chemotherapeutic value of platinum drugs.

The group is currently looking for cisplatin adducts in patients who have had no previous chemotherapy, following them through the course of their disease and treatment. Results from a study of individuals with histories of no prior platinum drug treatment are encouraging, she said.

"We found what appeared to be an accumulation of adducts with platinum exposure in many cases," Dr. Poirier said. "By monitoring adduct levels, it may eventually be possible to predict how well a patient's tumor will respond to platinum drug therapy."

—Conrad J. Storad □

## Dr. Rodney E. Ulane Joins NIGMS Review Office

Dr. Rodney E. Ulane recently joined the staff of the National Institute of General Medical Sciences.

Dr. Ulane has been appointed executive secretary of the Pharmacological Sciences Review Committee in the NIGMS Office of Review Activities.

The committee is responsible for review of program projects and research training programs administered by NIGMS in the pharmacological sciences.

Dr. Ulane was born in Chicago and received his B.A. in biology from St. Mary's College. He attended graduate school at Southern Illinois University where he was awarded the M.A. degree in microbiology in 1968. He earned the Ph.D. degree in 1971 for his work on amino acid intermediary metabolism in yeast.

Dr. Ulane came to the NIH in 1971 as a staff fellow in the Laboratory of Biochemistry and Metabolism, NIADDK, studying the control of cell wall synthesis and differentiation with Dr. Enrico Cabib.

In 1975, he joined the NICHD Neonatal and Pediatric Medicine Branch, where he studied phospholipid metabolism as it related to differentiation and developmental biology. In 1977, Dr. Ulane was appointed chemist in NICHD, a position which he held until 1983, when he joined the Division of Research Grants as executive secretary of the Microbial Physiology and Genetics Study Section.

Dr. Ulane was awarded the PHS Association Research Award in 1981. He is a member of Sigma Xi, the American Chemical Society and American Association for the Advancement of Science. □

## Two Management Interns Selected for 1-Year Term



Elizabeth Moore (l) and Mary McGarvey (r), 1984 management interns, were recently welcomed by Richard Striker, (l rear), chairman, administrative training committee, and Calvin Baldwin, (r rear), associate director for administration.

Two NIH management interns have been selected by the Division of Personnel Management for the 1-year training program which commenced in January.

Under the guidance of the Office of the Assistant Director for Development and Training and a mentor from the NIH Administrative Training Committee, each intern undergoes 3 weeks of program orientation, and then enters into a series of four separate 3-month assignments in various managerial disciplines.

A majority of these assignments are conducted at NIH, but program flexibility allows assignments at PHS, HHS, Congress or other government agencies.

Some latitude is necessary since every intern must design the nature and sequence of each training experience. The interns attend meetings in which various guests present informal talks on selected subjects.

In addition, several group activities such as visits to facilities at NIEHS are also planned.

At the end of the year, each intern will assume a permanent position in a chosen administrative or managerial area. □



Total recarpeting of the NIH Library has been completed, following several months of rearrangements and restrictions on library users' movements. Carolyn Brown (l), chief of the Library Branch, DRS, and Lynn Powers, administrative officer, want to express their thanks to the library's users for the patience and understanding they showed during this unexpectedly long period.

## Children Show Sympathy, Altruism at Early Age

Children as young as 18 months of age show feelings of guilt, sympathy, and altruism, often reaching out to comfort a sad parent or a crying playmate, according to Dr. Carolyn Zahn-Waxler of the National Institute of Mental Health (NIMH).

### Caring Characteristics

"Often our theories bias us against seeing the caring characteristics in children," said Dr. Zahn-Waxler. "Caring behavior often is quietly and subtly conveyed. It does not carry with it the 'drama' of a child's temper tantrum or acute state of woe."

Focusing on the caring characteristics of very young children, Dr. Zahn-Waxler and her colleagues, Drs. Marian Radke-Yarrow and Robert King, have concentrated on a side of children that most researchers have ignored.

Their findings could significantly alter current concepts of child development which mainly see young children as self-centered little beings.

"If we properly understand the beginnings of guilt, empathy, and altruism, we might reach a better understanding of some of the emotional disorders of childhood and adulthood," Dr. Zahn-Waxler noted.

"For instance, the antisocial personality is characterized by a lack of guilt or lack of feelings of responsibility. At the other extreme, the crippling effect of too much guilt has been linked with the development of anxiety disorders and depression.

Over a period of 9 months, the NIMH scientists studied 24 male and female infants between the ages of 10 and 20 months. Five years later, they studied the toddlers for a 3-month period. The mothers, used as trained observers, recorded approximately 2,000 incidents for the researchers for later analysis. To guard against bias, a second study used videotapes of children's reactions to others' distress to verify the mothers' observations.

Between 12 and 15 months of age, when altruism is just beginning, the children made simple, positive physical contacts with the "victims" either by touching, patting, or giving them objects, the investigators discovered. Between 18 months and 2 years, children were seen to protect, comfort, give simple advice, and mediate fights.

During the second year of life, children also showed signs of developing a conscience and subsequent guilt feelings. When children caused someone distress, they often were apologetic. A few children would apologize repeatedly—even for injuries they did not inflict.

### Rearing Practices

Rearing practices also influenced the degree of altruism and guilt in young children.

"Empathic mothers—very responsive mothers who help children promptly in times of distress—were, significantly, more likely to have children who were highly altruistic," Dr. Zahn-Waxler said. However, the scientists discovered that empathic mothers also were more likely to use strong discipline when their children caused distress.

## Visiting Scientists

Fogarty International Center  
Program Participants

**2/7—Dr. Christian Guenat**, Switzerland. Sponsor: Dr. J. Ronald Hass, Laboratory of Environmental Biophysics, NIEHS, Research Triangle Park, N.C.

**2/7—Dr. Yoshihiro Nakata**, Japan. Sponsor: Dr. Jau-Shyong Hong, Neuropharmacology Workgroup, NIEHS, Research Triangle Park, N.C.

**2/27—Dr. Pier Paolo DiFiore**, Italy. Sponsor: Dr. Stuart Aaronson, Laboratory of Cellular and Molecular Biology, NCI:DCE, Bg. 37, Rm. 1A07.

**2/27—Dr. Selsuke Hattori**, Japan. Sponsor: Dr. Thomas Y. Shih, Laboratory of Molecular Oncology, NCI:DCE, FCRF, Frederick.

**2/27—Dr. Harvinder S. Talwar**, India. Sponsor: Dr. John L. Meyer, Mineralized Tissue Research Branch, NIDR, Bg. 30, Rm. 224.

**3/1—Dr. Hans Erik Agren**, Sweden. Sponsor: Dr. William Z. Potter, Clinical Psychobiology Branch, NIMH, Bg. 10, Rm. 4S244.

**3/1—Dr. Alberto Haces**, Venezuela. Sponsor: Dr. John Driscoll, Laboratory of Medicinal Chemistry and Biology, NCI:DCT, Bg. 37, Rm. 6D24.

**3/1—Dr. May Wong**, Hong Kong. Sponsor: Dr. Stuart A. Aaronson, Laboratory of Cellular and Molecular Biology, NCI:DCE, Bg. 37, Rm. 1A07.

**3/4—Dr. Dieter H. Naber**, West Germany. Sponsor: Dr. Richard J. Wyatt, Adult Psychiatry Branch, NIMH, St. Elizabeths Hospital.

**3/4—Dr. Amram Samuni**, Israel. Sponsor: Dr. Eli Glatstein, Radiation Oncology Branch, NCI:DCT, Bg. 10, Rm. B1B50.

**3/5—Dr. Parveen Kumar**, India. Sponsor: Dr. Samuel H. Wilson, Laboratory of Biochemistry, NCI:DCBD, Bg. 37, Rm. 4D23.

**3/6—Dr. Liao Kanghuang**, China. Sponsor: Dr. Jay H. Robbins, Dermatology Branch, NCI:DCBD, Bg. 10, Rm. 12N258.

**3/7—Dr. Carl-David Agardh**, Sweden. Sponsor: Dr. Phillip Gorden, Diabetes Branch, NIADDK, Bg. 10, Rm. 8S243.

**3/7—Dr. Bachoti Sridhara Rao**, India. Sponsor: Dr. Robert Martin, Laboratory of Molecular Biology, NIADDK, Bg. 2, Rm. 214.

**3/7—Dr. Elji Yamamoto**, Japan. Sponsor: Dr. Michael Hogan, Biometry and Risk Assessment Program, NIEHS, Research Triangle Park, N.C.

**3/9—Dr. John A. Robertson**, U.K. Sponsor: Dr. Daniel Nebert, Laboratory of Developmental Pharmacology, NICHD, Bg. 10, Rm. 8C414.

**3/14—Dr. Giovanni Gaudino**, Italy. Sponsor: Dr. Lawrence H. Lazarus, Laboratory of Behavioral and Neurological Toxicology, NIEHS, Research Triangle Park, N.C.

Strong discipline included high expectations of absolute adherence to rules about never hurting others (for example, "you mustn't ever bite"), moralizing ("it's not nice to do that"), or strong verbal commands against hurting.

The scientists speculate that a combination of nurturance and strong discipline creates heightened sensitivity in the child. They also believe that parents can be taught specific techniques to encourage caring behavior in children, which can sensitize the parents "to the early emerging humanity of their children."

—Judy Folkenberg. □

When I'm happy I feel like crying, but when I'm sad I don't feel like laughing. I think it is better to be happy; then you get two feelings for the price of one.—Lily Tomlin

## Nutritionist Jeanne Tillotson Retires After 31 Years at NIH



Dr. Barbara Packard, director, DHVD (l), and Dr. William Zukel, associate director for scientific programs, DHVD (r), present Ms. Tillotson with a certificate of appreciation.

Jeanne L. Tillotson, nutritionist with the Preventive Cardiology Branch, Division of Heart and Vascular Diseases, NHLBI, recently retired after 31 years of service to the NIH.

Ms. Tillotson graduated magna cum laude from Florida State University in 1943 with a B.S. in foods and nutrition. She received her M.A. in psychology in 1962 from the George Washington University.

Before joining the government, Ms. Tillotson served her dietetic internship with the New York Hospital, Cornell University. After completing her internship, she joined the professional staff there as a therapeutic dietitian.

In March 1953, she joined the Nutrition Department, Clinical Center. Her first duties were organizational in preparation for the initiation of the patient dietetic service when the CC opened in July 1953. She served as therapeutic staff dietitian and later was appointed acting chief of the Patient Dietetic Service.

During her 12-year service with the CC, she supervised each of the patient clinical and metabolic dietetic services. Ms. Tillotson was responsible for the establishment of new dietetic services such as the NIMH "halfway house" for children and the NCI reverse isolation unit.

In May 1965, she joined the (then) National Heart Institute as a nutritionist with the Division of Heart and Vascular Diseases. There her duties included development and supervision of the nutrition data collection activities carried out by the Geographic Pathology Branch.

In addition, she assisted with analysis and publication of the dietary data as the studies evolved.

From 1972, Ms. Tillotson was associated with the nutrition-related activities of the Preventive Cardiology and Clinical Trials Branches, DHVD.

One of these activities was the Multiple Risk Factor Intervention Trial in which Ms. Tillotson developed the dietary data collection methodology and training and monitoring of quality control of the nutrition data.

She is a recipient of the PHS Meritorious Service Medal, a member of numerous professional societies, and widely published in the field of nutrition as it relates to the prevention of cardiovascular disease. □

## Irving Shapiro, NIADDK Writer-Editor, Retires To Continue World Travels and Pursue Hobbies

Irving Shapiro, writer-editor with the NIADDK information office, will retire after 21 years of government service. Nineteen of those years have been spent with the National Institute of Arthritis, Diabetes, and Digestive and Kidney Diseases.

For the past 9 years, Mr. Shapiro has handled the information activities of the Division of Digestive Diseases and Nutrition.

Dr. Harold Roth, director of the division, said Mr. Shapiro's accomplishments are not necessarily those that appear in written reports. "His greatest accomplishments are that he has a natural sympathy for people and a pleasant way of expressing it. If I were a patient with a problem, I'd want to speak to Irving."

During his early years with the Institute, Mr. Shapiro was in charge of exhibits for the information office and traveled to medical meetings in major cities in the United States. In 1972, he received the Institute's Superior Performance Award for his outstanding work in representing the Institute at these meetings.

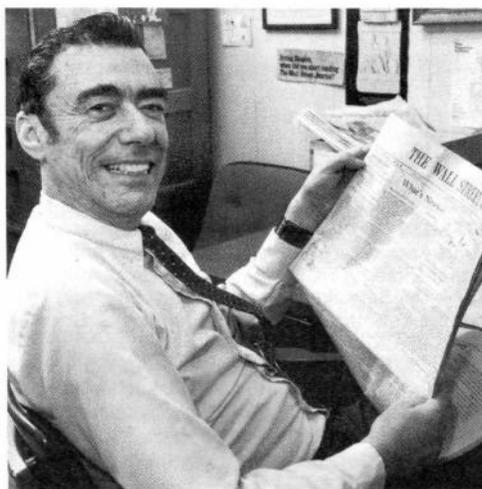
In 1971 and 1974, he received a certificate of merit from the American Medical Association for his cystic fibrosis exhibit. His publication on peptic ulcers won the National Association of Government Communicator's Blue Pencil Award in 1980 and an award of achievement from the Society for Technical Communication in 1981.

He inherited his love of writing from his father, who in addition to his regular employment, wrote a column for the *Jewish Daily Forward* in New York City.

Mr. Shapiro was born in New York City and moved to Washington when he was 13. His writing career began at McKinley High School, where he was sports editor of the high school newspaper. After graduation, he attended George Washington University where he became feature editor of the school newspaper.

In 1952, he graduated with a B.A. in journalism. He then served 2 years in Germany with the United States Army and became editor of their newspaper "WACOM Courier." After his tour of duty, he was accepted at the London School of Economics to study international relations.

Mr. Shapiro said that studying at the London School of Economics was one of the



Irving Shapiro, who is retiring from the NIADDK information office, scans *The Wall Street Journal* for medical (?) information.

greatest experiences of his life. As part of his studies, he was one of the first Americans to go to the Soviet Union in 1956 when it was opened to American visitors. With other students from several English universities, he toured the country for 6 weeks. Since his parents had emigrated to the United States from Russia, he had a special interest in the country.

After 2 years of postgraduate work in London, Mr. Shapiro was hired by Dr. Christian B. Anfinsen, Nobel prizewinner and formerly of NIADDK, as executive secretary for the Federation of American Scientists. After several years with the foundation, he went to work for the National Academy of Sciences and, finally, came to work for NIH in 1965.

Mr. Shapiro said that in all the years he has spent at NIH, he still enjoys helping people. "I get a warm glow at the end of the day thinking that I have helped someone with a problem or tried to put them in touch with someone who can assist them further."

His future plans include freelance writing and editing and plenty of time for his hobbies: financial investments, folk dancing, tennis, and stamp collecting. Mr. Shapiro has already traveled to 77 countries and plans to visit at least 125 more, starting with a trip to New Zealand, Australia and the South Sea Islands in the next few months. □

climates.

Transmission of infection is by direct contact, or indirectly, as in the case of endemic syphilis, by the use of common eating and drinking utensils. The causative treponemes, a subgroup of the bacterial spirochetes, have identical morphology; at present they cannot be cultured or differentiated in the laboratory.

A cure for these treponemal diseases is produced by a single intramuscular injection of long-lasting penicillin.

Preregistration is recommended. For additional information, write to: International Studies Branch, Fogarty International Center, Building 16A, Room 205, National Institutes of Health, Bethesda, MD 20205, or call Nancy Shapiro (301) 496-2517. □

## ANIMALS

(Continued from Page 1)

John Charles Daly, former newscaster.

Also scheduled is a panel discussion on moral stewardship and the responsibility of investigators, with emphasis on moral trade-offs.

The Wednesday afternoon session will be concerned with imperatives in animal welfare, including:

- A summary of proposed changes in the revised Public Health Service policy on animal welfare;
- A panel review of measures being taken by the U.S. government and the American and international scientific communities to ensure humane, responsible use of animal subjects of research; and
- A panel review of varying perspectives on the use and care of research animals.

NIH officials have determined that current PHS animal welfare policy requires certain changes to ensure that institutions receiving PHS research funds appropriately use and care for animals involved in research.

Under proposed changes, institutions would need to designate lines of authority and responsibility for those involved in animal care and use and provide NIH with more specific information on their research programs with animals, mainly to assess each institution's ability to comply with the policy. Also, clearer definitions have been proposed on the role, responsibilities and composition of local animal research committees to strengthen their involvement in all aspects of their institution's animal programs.

The Thursday morning session will feature two scientific panels: one on the selection and use of appropriate animal and non-animal models for achieving specific research and testing objectives; the second on understanding and controlling pain.

In the final session, Dr. Karl Johan Obrink, professor of physiology at the University of Uppsala (Sweden), will summarize the symposium and discuss its impact from an international perspective.

After the symposium, NIH will develop other elements of its educational program on animal welfare including:

- A series of regional workshops, to begin in the fall (1984), to promote understanding, acceptance, and implementation of the PHS animal welfare policy;
- A guidebook to promote understanding among animal research committees, administrators, and investigators concerning their individual and joint responsibilities in implementing the PHS animal welfare policy;
- A comprehensive inventory of audiovisual educational materials that could be used in self-tutorial exercises and in support of lectures, workshops and demonstrations; and
- Printed materials for the general public on the need for using animals in health research as well as on measures used to ensure proper selection and appropriate use of animals, and techniques employed to eliminate or reduce pain and distress in animals involved in health research. □

## Conference on Yaws Slated At PAHO on April 16-18

Mankind has seen the eradication of only one disease, smallpox. Representatives of 30 nations will meet at the Pan American Health Organization in Washington, D.C., Apr. 16-18, to consider whether yaws, like smallpox, can be eradicated.

Yaws, along with endemic syphilis and pinta, is a nonvenereal chronic infection, largely afflicting children. Yaws is a disease of the less developed, humid tropics; pinta (spotted sickness) is confined to very small areas of Latin America and the Caribbean, and endemic syphilis is found in cooler, drier

## New Hypothesis Proposed to Explain Liver Failure-Brain Malfunction Link

Clinicians over the last several decades—and perhaps as long as the past 100 years—have been immensely interested in an apparent link between liver and brain function.

When diseases of the liver cause liver failure, distinct neurological symptoms occur, from disturbances in sleep patterns and personality changes to coma.

Several theories have been proposed to explain the link in liver/brain function. Three of these theories have received much attention.

When the liver shuts down or its function is impaired, several substances which can affect the function of the brain—but are normally cleared by the liver—accumulate in the blood and may eventually cross the blood-brain barrier into the brain.

### Ammonia Hypothesis

One hypothesis suggests that accumulation of ammonia (a normal waste product that typically is disposed of easily) may be the cause of neurologic problems associated with liver disease.

Another suggests that the additive effects of ammonia, mercaptans, and fatty acids affect the functioning of the brain.

The third hypothesis, termed the false neurotransmitter hypothesis, suggests that the substances that normally conduct nerve transmission in the brain (neurotransmitters) are reduced, while "false" neurotransmitters increase.

The overall effect of this upset balance is thought to lead to the neurological problems evidenced in liver disease/failure.

Now researchers in the Liver Unit, NIADDK—Drs. E. Anthony Jones, S. Chris Pappas, and Peter Ferenci—propose a dif-

ferent hypothesis, with supporting data to explain the functional relationship between the liver and the brain.

This hypothesis has been termed the true neurotransmitter or GABA hypothesis. GABA, gamma-aminobutyric acid, is the principal substance that causes inhibition of neural function in the mammalian brain.

### True Neurotransmitter

This hypothesis suggests that increased levels of GABA in the blood, together with an increased sensitivity of the brain to GABA, eventually leads to neurologic dysfunction.

Using a rabbit model of liver failure, the investigators examined visual evoked potentials (VEPs). VEPs are the averaged recorded brain responses to multiple light pulses by an animal undergoing certain treatments.

The investigators found that the VEPs in liver coma were very similar to those caused by stimulation of the GABA neurotransmitter system, whereas responses to ammonia and ammonia with other toxic substances were different.

### Supporting Data

Other supporting data indicate that GABA in the bloodstream can cross into the brain during liver failure, though under normal circumstances it does not. It is produced by bacteria in the gut, and brain receptors of GABA increase when liver failure induces coma.

While these results are exciting and encouraging, research continues to strengthen the hypothesis.

With the development of new drugs, it eventually may be possible to counteract the inhibitory brain effects of GABA in coma due to liver failure. □

## Minority College Students Introduced to NIH Research

The National Institute of Allergy and Infectious Diseases recently sponsored a two and one-half day program "An Introduction to Biomedical Research" designed to alert college juniors and graduating seniors to the opportunities for minority students in biomedical research at NIAID as well as other research centers at NIH.

While at the conference, students heard a series of lectures by members of the NIAID staff, were interviewed by NIAID scientists, and took a tour of the hospital and laboratory facilities on the NIH campus.

Students from the United States and Puerto Rico were recommended by their deans and professors to attend this program.

To be eligible, students must be interested in science and have some courses in the physical, chemical, biological, mathematical or behavioral sciences. Some also are involved in ongoing research projects at their universities.

Of the 52 students attending the conference, at least 20 individuals will be offered summer employment in NIAID laboratories, located either in Bethesda or in Hamilton, Mont. □

## On Pregnancy and Smoking

*Facts About Pregnancy and Smoking*, an illustrated brochure, describes the effects of cigarette smoking on the developing fetus.

The booklet presents the findings of the National Institute of Child Health and Human Development-supported research on how maternal smoking affects newborns, contributes to more premature births and small and underweight infants, and increases the incidence of respiratory and cardiovascular problems and perinatal deaths among newborn babies.

The brochure graphically shows the path smoke travels via the mother's mouth, lungs, bloodstream, placenta and umbilical cord to the fetus. It also gives some other sources of information for pregnant mothers and health care providers on the subject of pregnancy and smoking.

Single copies of *Facts About Pregnancy and Smoking* may be ordered free of charge from NICHD's Office of Research Reporting, Rm. 2A32, Bldg. 31, NIH, 9000 Rockville Pike, Bethesda, MD 20205. □

Reason is God's gift; but so are the passions: reason is as guilty as passion.—*Cardinal Newman*

## SAIDS

(Continued from Page 1)

Retroviruses differ from most viruses because they contain a special enzyme called reverse transcriptase, which is necessary for the virus to replicate or make copies of itself. This replication enzyme provided the key link in discovering the cause of SAIDS.

To find the SAIDS virus, scientists at NINCDS and the DRR-supported California Primate Research Center at the University of California at Davis had been following an elaborate scheme of experiments.

From these experiments the investigators knew the SAIDS agent was infectious; they knew it was transmitted by blood; and they knew it was small. The evidence pointed to a virus.

But the virus proved elusive. The scientists took plasma—the liquid component of blood—from diseased monkeys and tried to grow the SAIDS agent in laboratory-cultured cells. Many viruses are easy to detect in culture because they kill the cells they infect.

The SAIDS agent, however, grew in the cultured cells without killing them, making the virus hard to spot. It wasn't until the scientists checked their infected laboratory-grown cells for reverse transcriptase—the enzyme that characterizes retroviruses—that the SAIDS agent was uncovered.

The scientists isolated the virus from their cultures, purified it, and injected it into a new group of healthy rhesus monkeys. When these monkeys died of SAIDS a few weeks later, there was little doubt the virus caused the disease.

But even more evidence surfaced. About the same time that the NINCDS/Davis team and their colleagues published their results, an independent group of scientists at the DRR-supported New England regional Primate Research Center in Southborough, Mass., similarly reported that they had isolated a type D retrovirus from monkeys with SAIDS. However, their reports did not include the successful transmission of the disease to healthy monkeys.

"With the evidence from our group and the New England group, we are quite sure that the new retrovirus causes SAIDS," Dr. Gravel says. "But there is a slight possibility that the purified virus inoculated into the test monkeys could have contained a contaminating virus that was not detected."

Though the case appears closed on the SAIDS culprit, scientists still face the ultimate challenge—finding the cause of AIDS. "Now that we have identified the cause of SAIDS, we believe that similar techniques may help us find a virus in humans with AIDS," Dr. Sever says.

The NINCDS investigators also want to find out how the new virus destroys the ability of the monkey's immune system to fight disease. "We hope this information will help explain the disease process in human AIDS as well," Dr. Sever says.

In addition, the scientists are working on ways to prevent SAIDS in rhesus monkeys, which are used throughout the country in medical research that can not be done on humans. Approximately 6,000 rhesus monkeys born annually in breeding colonies in the United States are potential SAIDS victims.

—Lynn Cave □

# CANCER

(Continued from Page 1)

mation related to cancer cause and prevention, the Awareness Program will focus on:

- Improving public attitudes on cancer incidence, treatment and prevention;
- Improving public awareness and knowledge of cancer risks and of individual actions that control some of those risks;
- Encouraging individuals to adopt healthy behaviors to reduce their cancer risks.

Approximately 30 percent of all cancer deaths are caused by smoking, and 35 percent are associated with diet, especially those low in fiber and high in fat.

Other cancer-related factors include occupational exposures, 4 percent; excess sunlight, 3 percent; alcohol 3 percent; viruses, 5 percent; environmental pollution, 2 percent; and food additives, 1 percent or less.

Findings from a national survey last June by NCI, however, show many Americans are unaware of and confused about their opportunities to control their risk of cancer.

Mrs. Heckler said almost half—49 percent—of the respondents failed to identify individual prevention as a way to reduce cancer risk. About half the population believes that "everything causes cancer" and that "there is not much a person can do to prevent cancer."

In addition to changes in diet and smoking habits, Mrs. Heckler said NCI recommends the following:

- Follow workplace safety and health rules such as using respirators and protective clothing.

## 'Schedule of NIH Conferences' Will Be Available in April

The *Schedule of NIH Conferences* is a quarterly publication of the Office of the Director, Division of Research Grants, that provides information on NIH-sponsored conferences, seminars, meetings, workshops, etc., in areas of program interest.

Each issue contains two sections arranged chronologically. A preconference notices section provides information on conferences for which plans are being made or have been completed; the postconference summaries section provides a brief summary of each conference that was held.

Once a year, an *Index* to the entries in that year's issues of the *Schedule* is also published which indexes each conference by scientific area.

This particular issue of the *Schedule* that will appear in April contains notices of 69 conferences to be held in the last three quarters of calendar year 1984 and 72 summaries of conferences that were held in 1983 and 1984.

The mailing list for the *Schedule* is being updated. If you would like to receive it on a regular basis, send your name, address and the number of copies desired to: *Schedule of NIH Conferences*, Division of Research Grants, Westwood Bldg., Rm. 455, National Institutes of Health, Bethesda, MD 20205. □

There are no whole truths, all truths are half-truths. It is trying to treat them as whole truths that plays the devil.—A. N. Whitehead.

- Avoid X-rays unless medically necessary. Discuss the need for them with health providers.

- If you drink alcoholic beverages, do so in moderation—one or two drinks a day.

- Protect skin from overexposure to sun. Adequate clothing and sunscreens can help reduce the risk of skin cancer.

- For women, take estrogens only as long as necessary.

When asked about specific dietary changes, NCI Director Dr. Vincent T. DeVita Jr. said that by adding fiber to the diet, a person would probably reduce consumption of other foods such as fat. He suggested eating whole grain foods or bran or "firm" fruits (apples, for example) and vegetables to replace fats. Also, trim fat from meat and eat lean meat, fish and poultry.

"Fat makes up approximately 40 percent of the caloric content of the American diet," Dr. DeVita said. "Our goal is to reduce this to 30 percent."

The Cancer Prevention Awareness Campaign will be implemented in two phases, Mrs. Heckler explained.

The first phase, which will begin immediately, is an information campaign aimed at the general public through mass media reports, a free booklet and messages on the toll-free cancer phone number (1-800-4-CANCER). It will end the first week in June, when the public will get a chance to test its knowledge of cancer prevention.

Phase two will aim cancer prevention information at those groups most at risk such as smokers. □

## Need for Biomedical Personnel Subject of NAS Session

The Committee on National Needs for Biomedical and Behavioral Research Personnel of the National Academy of Sciences/Institute of Medicine will hold its fifth public meeting in Washington, D.C., on May 10, at 1 p.m. in Conf. Rm. B of the Pan American Health Organization, 525 23rd St., N.W., Washington, D.C.

Purpose of the meeting is to receive comments on the committee's 1983 report, "Personnel Needs and Training for Biomedical and Behavioral Research," and to receive suggestions for the committees' future work.

Interested persons are invited to make brief statements of 10 minutes or less. Such statements should be submitted in writing by May 8, 1984, if possible.

Comments from the floor are also welcome. Single copies of the report are available from the Committee, JH 640, 2101 Constitution Ave., N.W., Washington, DC 20418. For further information contact Allen M. Singer, (202) 334-3186. □

## R&W Plans Shopping Spree, May 4

R&W is planning a shopping spree to Reading, Pa., on Friday, May 4, to visit Vanity Fair and Moss Street and other factory outlets.

The bus will leave Bldg. 31C at 7 a.m. sharp and depart Reading for the return trip at 4:30 p.m. □

U.S. GOVERNMENT PRINTING OFFICE 1984—421-134/14

DEPARTMENT OF  
HEALTH & HUMAN SERVICES  
Public Health Service  
National Institutes of Health  
Bldg. 31 Room 2B-03  
Bethesda, Maryland 20205  
Official Business  
Penalty for Private Use \$300

Postage and Fees Paid  
U.S. Department of H.H.S.  
HHS 396

