The NIH Record

U.S. Department of Health and Human Services

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National Institutes of Health

NCI, Kellogg Co. Cooperate To Spread Anti-Cancer Diet

The Kellogg Company, largest cereal manufacturer in the United States, has included National Cancer Institute prevention messages related to diet in its print and broadcast advertising for All-Bran. The ads began appearing Oct. 7 on television and in major Sunday newspaper magazines.

Full-page advertisements appeared also in *USA Today, Time, Newsweek,* and *U.S. News and World Report.* The television ads have appeared on all three major networks, primarily on morning news shows and evening network news broadcasts. They also have been aired on daytime soap operas and game shows.

Both the print and broadcast advertising mention reports from the National Cancer Institute that a high-fiber, low-fat diet may reduce the risk of some cancers. In addition, the print ads suggest that readers can write NCI for a copy of a booklet on cancer prevention.

NCI staff have cooperated with Kellogg's,

(See DIET, Page 11)

NIA Funds Five New Research Centers For Basic Studies of Alzheimer's Disease

A new multimillion dollar Alzheimer's disease research program, establishing five Alzheimer's Disease Research Centers at universities across the country and awarding them a total of $3.5 million in grants for their first year of operation, has been announced.

"The centers will foster collaboration among multidisciplinary groups of investigators, thus making possible achievements that could not be realized by individual researchers working alone," said Dr. T. Franklin Williams, Director of the National Institute on Aging.

Research at the centers will correspond with goals outlined last month by the HHS Alzheimer's Disease Task Force.

Grants to set up the centers will be provided by the National Institute on Aging. Participating universities and research consortiums are the Harvard Medical School/Massachusetts General Hospital, Boston; The Johns Hopkins Medical Institutions, Baltimore; and Mt. Sinai School of Medicine, New York; the University of California-San Diego, and the Univrsity of Southern California.

Shared Resources

Each center will provide shared resources for established investigators working on basic, clinical and behavioral studies of Alzheimer's disease and related disorders. They will also fund new research projects as well as train scientists and health care providers new to Alzheimer research.

In order to translate research advances into improved care and diagnoses of Alzheimer patients as quickly as possible, the centers will keep health professionals and voluntary support groups informed on research findings.

One of these voluntary groups, the Alzheimer's Disease and Related Disorders Association, was the first to recommend the multidisciplinary approach in Alzheimer research.

"Pooling the efforts of established researchers is not only an economical move, it creates an ideal environment for generating

(See ALZHEIMER's, Page 11)

Camp Fantastic: A Place for Mischief, Delight, Comradery–and Courage

By Francis X. Mahaney, Jr.

Front Royal, Va.—The hot air balloon sailed across the inky-blue sky, over the undulating hills of the Blue Ridge Mountains and the faded ribbon of a country road that stretched out flatly below. Poppi, a wide-eyed 7-year-old, howled as the balloon turned to the winds, making circles 100 feet above the ground.

For this small boy, who had been recently diagnosed as having cancer, nothing came close to the joy-felt experience of "floating on the white fluffy clouds." From his view, perched high in the sky, he could see the jeweled cobweb of small farms and the other children waving and cheering him on from "Harmony Hollow."

"Hey, hey, look at me. I'm up in the air!" he yelled, as tiny hands gestured and birds etched themselves against the summer sky and the sun-washed meadows of Camp Fantastic.

In August, the camp—in Warren County 68 miles southwest of Washington—was host to 46 children ranging in age from 6 to 18. The children—who are being treated for cancer at the National Cancer Institute, at Children's Hospital National Medical Center, and at Johns Hopkins Hospital—spent a week here living out a summer fantasy they would never forget.

... Buddies ...

The children went swimming and canoeing. They rode horses and milked goats. They played volleyball and chased one another between the free-flowing lines of tree shadows.

But on this day, the camp was all illumination, all color. A carnival appeared in camp, complete with a merry-go-round, a clown giving out balloons and a gorilla that broke the children up with laughter. And then appearing through the billowing clouds was the hot air balloon, which everyone was given a chance to ride.

Later, the children screamed with delight when an animal trainer came to camp with his 8-foot pet boa constrictor, that he just happened to be carrying in a gym bag.

A Time for Mischief and Delight

This year, as it is every year, Camp Fantastic was a time for mischief and delight.

"We threw our counselor in the pool. We tipped his canoe and he fell overboard, we dumped chocolate pudding pie over one of the doctors," said Mark, age 8. "Why, I had so much fun, I hated to leave."

(See CAMP FANTASTIC, Page 6)

The NIH Record

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NIH Record Office
Bldg. 31, Room 2B-03, Phone 496-2125

Editor
Herschel Cribb

Staff Writers
Joyce F. McCarthy
Anne Barber

Editorial Assistant
Marilyn Berman

Staff Correspondents
CC, Richard McManus; DCRT, Joan P. Sobel; DPM, Harry Marshall; DRG, Sue Meadows; DRR, Barbara Menick; DRS, Jim Doherty; FIC, Susan P. Stark; NCI, Patricia A. Newman; NEI, Marsha Corbett; NHLBI, Larry Blaser; NIA, Marian Emr; NIAID, Jeanne Winnick; NIADDK, Barbara Weldon; NICHD, James Hadley; NIDR, Jody Dove; NIEHS, Hugh J. Lee; NIGMS, Wanda Warddell; NIMH, Harry Bell; NINCDS, Carol Rowan; NLM, Roger L. Gilkeson.

TRAINING TIPS

The following courses are sponsored by the Division of Personnel Management.

Executive, Management, and Supervisory	*Course Starts*	*Deadline*
Dynamic Listening	11/15	11/2
Strategies for Managing the Work Environment	11/14	11/2
Successful Middle Management at NIH	12/11	11/23
Introduction to Supervision	1/28	1/11
Technical		
Letterwriting for Secretaries	12/5	11/21
Effective Office Management	10/29	10/18
Self Assessment and Career Options	10/30	10/18
Self Assessment and Career Options for Professionals	11/1	10/19
Freedom of Information Workshop (Contract)	10/30	10/19
Freedom of Information Workshop (Grants)	11/13 or 11/20	10/31
Administrative		
Travel Orders & Vouchers	11/5 12/3	10/22 11/19
Time and Attendance	11/1 12/10	10/18 11/26
DELPRO (for new users only)	11/5	10/22

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

CORRECTION

The Institute in which Dr. Elke Jordan is associate director for program activities was misidentified in a picture caption on page 10 of the October 9 issue of *The Record*.

She holds that post at NIGMS, *not* NIAID. □

Dr. Donald A.B. Lindberg, Information Scientist, Sworn in as National Library of Medicine Director

Dr. Donald A. B. Lindberg was sworn in as Director of the National Library of Medicine in ceremonies held Oct. 11 in the Library's Lister Hill Center Auditorium. Attendees included NLM staff and notables from throughout the medical library and research community.

Dr. Lindberg, formerly director of the Information Science Group and professor of pathology at the University of Missouri School of Medicine in Columbia, Mo., was appointed NLM Director by Health and Human Services Secretary Margaret M. Heckler in June and assumed his official duties in August.

He was sworn into his new NLM Directorship by NIH Director Dr. James B. Wyngaarden.

In remarks during the ceremony, Dr. Wyngaarden cited Dr. Lindberg's unique qualifications as a teacher, administrator, pathologist, and computer expert, and reflected on the immense task of directing the varied national and international information programs of the Library.

A graduate of Amherst College, Dr. Lindberg received his medical degree from the College of Physicians and Surgeons of Columbia University. He has been associated with the University of Missouri for over 20 years—as a teacher of pathology and library and information science.

Under his directorship, Dr. Lindberg has cited four external technological factors that the NLM staff will be paying attention to in the future:

- microprocessors and the massive integration of circuit elements that underlie them,
- electronic communications networking technology and the geo-stationary earth satellites on which it depends,
- laser disk information and image storage, and
- artificial intelligence techniques for knowledge representation.

Dr. Lindberg (l) was sworn in to the NLM Directorship by Dr. Wyngaarden Oct. 11. Dr. Lindberg's wife and son look on.

Although emphasizing Dr. Lindberg's medical background and technical expertise, Dr. Wyngaarden also stressed the value of his humanism—"a humanism that recognizes that technology is a tool to serve people, and that like medicine, there is *art* as well as science involved in information technology."

Dr. Lindberg is the 19th Director of the Library, succeeding Dr. Martin N. Cummings, who retired from Federal service in September 1983 after a directorship of nearly two decades. □

STEP Forum To Review Other Countries' Research

A STEP Forum entitled "Support of Biomedical Research in Other Countries," will be held on Wednesday, Nov. 7 from 2 to 4 p.m. in Wilson Hall, Bldg. 1.

Featured speakers will be Dr. J.C. Pinon, Embassy of France; Dr. Jorge Flores, NIH Visiting Scientist, Central University of Venezuela; Hiroto Ishida, Embassy of Japan; and Jan Brukszo, Embassy of the Polish People's Republic.

They will address how biomedical research is supported in their respective countries; how priorities are developed, and by whom; how funding decisions are made; and what percent of Gross National Product is devoted to biomedical research.

Also what percent comes from government, industry, and university; opportunities for foreign scientists (research support and fellowships); targeted vs. investigator-initiated research; support of young investigators, and relationships among government, industry, and institutions in the support of biomedical research.

The forum is open to all NIH professional and support staff. For additional information, contact the STEP Program Office on 496-1493. □

U-Through-Z Parking Stickers Up for Renewal in November

All NIH employees whose last names begin with the letters U, V, W, X, Y and Z must renew their general parking stickers during November. A memo will be distributed by the NIH Parking Office to affected employees notifying them of the renewal process and schedule.

Employees with preferential (red) or carpool parking permits whose last name begins with these same letters do not need to obtain new parking permits during November.

By Dec. 3

The NIH Parking Office in Bldg. 31, Rm. B1C19, will renew parking permits all workdays between 8:30 a.m. and 3:30 p.m. Off-campus renewal sites include Blair Bldg., Conf. Rm. 110, Wed. Nov. 14 from 1-2 p.m.; Westwood Bldg., Conf. Rm. 3, Wed. Nov. 14 from 9-11 a.m.; Landow Bldg., Conf. Rm. 119, Wed. Nov. 21 from 10-11 a.m. and Federal Bldg., Wed. Nov. 21 from 1-2 p.m.

All new general parking permits must be displayed no later than Monday, Dec. 3. For further information, call the NIH Parking Office on 496-5050. □

Open Season, New Rates Announced For Federal Health Insurance Plans

The Office of Personnel Management (OPM) has announced Nov. 5 through Dec.7 as "Open Season" under the Federal Employees Health Benefits Program (FEHBP). During that time, eligible employees may enroll in one of 21 different health benefit plans. Persons already enrolled may change their plan, option, type of enrollment, or any combination of these during the same period.

Commissioned Corps personnel, employees serving under appointments limited to 1 year or less, and intermittent employees are not eligible for enrollment in the FEHBP.

Open Season Health Fair

The Division of Personnel Management will sponsor an Open Season Health Benefits Fair on Thursday, Nov. 15, in Wilson Hall, Bldg. 1. Various carrier representatives will be available from 9 a.m. to 12:30 p.m. to answer individual questions on the 1985 contracts. All employees are invited to attend. Employees who want to attend should obtain the approval of their supervisor.

Eligible employees will soon receive a packet containing BRI 41-331; a booklet entitled "1985 Enrollment Information Guide and Plan Comparison Chart"; and a 1985 government-wide or comprehensive medical brochure for the plan in which the employee is presently enrolled.

Employees covered by employee organization plans will receive a 1985 brochure directly from the sponsoring organization.

1985 Guide-Chart

The 1985 Guide-Chart contains open season enrollment instructions and general information about the program, and gives biweekly rates for each plan for 1985. It also itemizes major features of all plans and categories of coverage such as catastrophic protection, doctor visits, dental, mental health, maternity and emergency care, outpatient diagnostic tests, etc.

OPM asks that employees not rely solely on the contents of the chart but should review the total brochure of the plan for a complete description of benefits.

Copies of *all* plan brochures are available for review through personnel offices.

After reviewing the literature, eligible employees who want to enroll or to change enrollments should contact their BID registration assistant and obtain a SF-2809, Health Benefits Registration Form. The names and locations of the assistants are listed on official bulletin boards.

OPM has announced new rates and benefits for 1985. The benefits become effective Jan. 1, 1985; rates become effective Jan. 6, 1985.

New Rates

The new biweekly rates for the major plans which cover NIH employees are:

Service Benefits Plan (Blue Cross-Blue Shield)

	1984	1985
Self		
High option	$30.05	$31.31
Low option	7.19	7.55
Family		
High option	65.06	67.52
Low option	17.15	18.67

Indemnity Benefit Plan (Aetna)

Self		
High option	32.05	27.70
Low option	7.35	7.47
Family		
High option	50.31	42.85
Low option	15.64	15.98

Group Health Association of Washington, D.C.

Self		
High option	15.54	15.93
Low option	8.52	8.91
Family		
High option	46.28	52.49
Low option	28.12	33.70

Government Employees Hospital Association Benefit Plan (*)

Self	10.27	9.92
Family	18.96	17.89

National Association of Letter Carriers Plan (*)

Self	24.48	19.40
Family	45.78	33.23

Kaiser-Georgetown Community Health Plan, Inc. (*)

Self	13.48	15.31
Family	40.35	44.75

George Washington University Health Plan (*)

Self	16.80	20.83
Family	51.89	61.99

Mail Handlers Benefits Plan

Self		
High option	6.98	6.98
Low option	6.26	5.95
Family		
High option	19.82	18.75
Low option	14.82	14.08

***Offers only one option**

Other plans in which NIH staff members may participate are:

American Federation of Government Employees Plan; Alliance Health Benefit Plan; Postmasters Benefit Plan; American Postal Workers Union Plan; Columbia, Md., Medical Plan; Free State Health Plan; Health Plus, Inc. Plan.

Also, National Federation of Federal Employees Benefit Plan; National Association of Government Employees Benefit Plan; National Treasury Employees Union Benefit Plan; Postal Supervisors Health Benefit Plan; M.D. Individual Practice Association, Inc.; and CHOICE Health Care Plan.

Rates and benefits for these plans have also changed for 1985. □

Statistical Method Lab Slates Open House on November 9

On Friday, Nov. 9, the Laboratory of Statistical Mathematical Methodology (LSM) will hold an open house as part of DCRT's anniversary celebration.

The LSM will sponsor concurrent 15-minute demonstrations from 10:30 a.m. to 3:30 p.m. in Bldg. 12A, Rms. B45-B51 on MLAB, GRAPH, SAS, SPSSX, Statistical Research, National Language Processing, and Preparation of Scientific Text.

The event is open to all NIH employees. □

Stetten Lecturer Will Discuss Nerve Signaling Structures

Dr. Robert M. Stroud, professor of biophysics at the University of California, San Francisco, will deliver the third annual DeWitt Stetten Jr., lecture on Wednesday, Oct. 31 at 3:30 p.m. in the Masur Auditorium.

Dr. Stroud's talk, sponsored by the National Institute of General Medical Sciences, is titled "Cellular Signaling: What Does the Structure of the Acetylcholine Receptor Tell Us About Its Function?"

Acetylcholine is one of the body's most important neurotransmitters (a class of chemicals that relay messages between components of the nervous system and the rest of the body). In order to receive these messages, cells must have receptors to which neurotransmitters can bind.

The receptor of acetylcholine is possibly the best understood, in part due to Dr. Stroud's work in determining its three-dimensional structure. Knowledge of receptor structure will help scientists learn more about cellular signaling in the nervous system and about diseases that result from malfunctions in this process.

Impaired function of the acetylcholine receptor, for example, has been implicated in causing or aggravating several serious diseases including myasthenia gravis, which results in a chronic progressive weakening of muscles.

Dr. Stroud is now studying the biochemistry of the receptor's subunits. He has identified elements of the receptor's structure that clearly point to one area that is crucial for message transmission. At the lecture, Dr. Stroud will discuss his new findings. His presentation will include use of three-dimensional computer graphic slides of the receptor.

The lecture series was established in 1982 to honor Dr. DeWitt Stetten Jr., the third Director of NIGMS, for his strong commitment to basic research and his special encouragement of fundamental studies in genetics and cellular and molecular biology. □

Word Processor User Groups' Meetings, Topics Announced

Lexitron User Groups will meet on the last Monday of each month at 10 a.m. The dates, locations and topics are listed below:

10/29, Bldg. 31 CR 2, Editing; 11/26, Bldg. 31 CR 9, Menus; 1/28, Bldg. 31 CR 9, Tabs; 2/25, To be announced, Communications; 3/25, Bldg. 31 CR 9, Forms; 4/9, Bldg. 31 CR 9, Alternate Character.

For more information contact Judy Steckel, 496-5461 or Joanne Paolucci, 496-7255.

IBM Displaywriter User Groups will meet on the first Tuesday of each month at 10 a.m. The dates, locations and topics are listed below:

11/6, Bldg. 31 CR 4, General Editing; 12/4, Bldg. 31 CR 9, Printing & Problem Determination Guide; 2/5, Bldg. 31 CR 9, Tables; 3/5, Bldg. 31 Rm. B2C06, Repetitive Letters; 4/2, Bldg. 31 CR 9, Communications; 5/7, Bldg. 31 CR 2, Chart Pak. Future topics will include Report Pak and Program Disk.

For more information, contact Wilma Bennice, 496-2311 or Judy Carusso, 496-5656. □

Vaccine to Protect Against Tooth Decay Possible In 3 to 10 Years, Kreshover Lecturer Indicates

A vaccine to prevent tooth decay could be available in the next "3 to 10 years," according to Dr. Roy Curtiss III who delivered the National Institute of Dental Research's annual Seymour J. Kreshover Lecture Sept. 17.

Dr. Curtiss, an NIDR grantee and chairman of the department of biology, School of Dental Medicine, Washington University in St. Louis, is renowned for his pioneering work in developing harmless forms of microorganisms for research through genetic manipulations.

Using mutagenesis, mutant isolation, and gene cloning, Dr. Curtiss has been able to produce desirable genes and gene products which are under study in an effort to develop an anticaries (tooth decay) vaccine.

In his lecture entitled: "Genetic Analysis of the Virulence of *Streptococcus Mutans*—Prospects for an Anticaries Vaccine," Dr. Curtiss said his research team has been analyzing the surface proteins of *Streptococcus mutans (S. mutans)*—the chief bacterium that causes tooth decay—to find what components are essential to allow this organism to adhere to teeth.

The goal in developing a caries vaccine is not to eliminate *S. mutans,* he said, but to prevent this organism from colonizing on tooth surfaces.

A sophisticated bacterium that is constantly active, the virulent *S. mutans* operates in the mouth by accumulating around and between teeth to form plaque. The bacteria in the plaque then convert sugar in foods and beverages into acids capable of dissolving the minerals found in tooth enamel. Once this occurs, a cavity can begin to form.

Dr. Curtiss pointed out that *S. mutans* appears during the first year of life soon after primary teeth begin to erupt, and generally

Dr. Harald Löe, NIDR Director (r), presented specially designed awards to Dr. Curtiss (l), the 1984 guest Kreshover Lecture speaker, and to Dr. Kreshover (c), former Institute Director for whom the lecture series is named. The award consisted of a lucite block containing the NIDR logo in silver and bearing the name of the award, the year, and the recipient.

remains present for life. Although antibodies against *S. mutans* are present in saliva, they are not sufficient to prevent the colonization of the bacteria on tooth surfaces.

One of the main problems in the development of a caries vaccine relates to the choice of antigenic material. Dr. Curtiss indicated that antigens must be tested to ensure that they do not harm healthy human tissue.

Dr. Curtiss identified the surface protein antigen A (SpaA protein) as the principal cell surface protein on *S. mutans* and found, in a rat model, that bacteria lacking this surface protein are totally avirulent. Using gene cloning techniques, he has been able to make pure preparations of SpaA protein, as well as of another surface protein called glucosyltransferase protein (GtfA protein). It is hoped that these recombinant clones (copies) expressing GtfA protein and SpaA protein can yield an effective vaccine against *S. Mutans*-induced dental caries.

Another important question about a caries vaccine concerns the most effective way to administer it. Dr. Curtiss' vaccine would be in the form of a capsule, while others, he said, are working on vaccines that may be injections or salves.

Although a caries vaccine could potentially eliminate tooth decay, Dr. Curtiss stressed that the vaccine would be used in conjunction with other dental health measures, such as water fluoridation, good dental hygiene, and routine dental care, to inhibit tooth decay. He believes that the vaccine would be most effective if given to children who are 3 or 4 years old.

Dr. Curtiss' selection as the NIDR 1984 guest lecturer highlights the Institute's dedication to the prevention and eventual eradication of caries through such methods as an anticaries vaccine. The NIDR lecture series is designed to recognize outstanding scientific accomplishments in basic and clinical research and to honor distinguished scientists who have made important contributions in fields directly related to the research interests of the Institute.

The NIDR annual lecture was renamed the Seymour J. Kreshover Lecture this year to honor the former NIDR Director who served from 1966 until his retirement in 1975. Under Dr. Kreshover's direction, the NIDR expanded its intramural and extramural research programs to encompass such fields as developmental biology, oral-facial anomalies, and oral medicine.

During his tenure, the Institute also launched the National Caries Program, a major effort to reduce the level of caries throughout the world. Currently, dramatic reductions in this disease are being experienced in the U.S. and in many other industrialized nations, in part as a result of research advances fostered by this program. □

NICHD Study Shows Smaller Babies Are Born To Mothers Who Take One or More Drinks Daily

Pregnant women who consume one or more alcoholic drinks every day substantially increase their risk of producing a growth-retarded infant, according to a new study reported in the Oct. 12 issue of the *Journal of the American Medical Association.*

The research team directed by Dr. James L. Mills of the National Institute of Child Health and Human Development, analyzed alcohol consumption in the first 3 months of 31,604 pregnancies to determine its effects on birth weight, intrauterine growth and length of gestation.

Although the women who consumed less than one alcoholic drink per day had only minimal increased risk of delivering a growth-retarded infant compared to nondrinkers, Dr. Mills does not suggest that less than one drink per day is safe.

"Any drop in birth weight indicates that alcohol is having an adverse effect on the fetus. We know from previous studies that alcohol affects fetal development in several areas other than birth weight.

"Thus, even a slight drop in birth weight might be accompanied by other harmful effects on the fetus that are not apparent at birth. We do not recommend that physicians tell pregnant women that anything less than one alcoholic beverage a day is safe," said Dr. Mills.

Although there was some change in birth weight in infants born to mothers who drank less than one drink per day, these differences were small. However, Dr. Mills and his colleagues state that when maternal drinking levels reached one to two drinks per day, the resulting changes in infant birth weight were significant.

Numerous studies have been conducted on maternal alcohol consumption and fetal growth, but the results are contradictory as to whether moderate or light drinking is harmful during pregnancy.

Possible reasons for these discrepancies may include inadequate sample size, measuring alcohol intake at different stages of pregnancy and not considering effects of other risk factors that contribute to reduced birth weight such as smoking, race and sociodemographic variables.

This new work has several advantages over previous reports. The investigators included risk factors in their analysis that can influence pregnancy outcome such as race, education, smoking and length of gestation.

In addition, the investigators asked the women early in their pregnancies about their drinking habits and also used a very large sample population.

"We established the women's alcohol use before delivery which decreases the possibility of biased answers," said Dr. Mills. "Our large sample size also enabled us to determine harmful levels of drinking."

Whether there is a safe level of alcohol consumption during pregnancy remains unanswered. This study examined only three factors—birth weight, intrauterine growth and length of gestation—with maternal levels of alcohol consumption.

Dr. Mills cautions that "the study did not look at the incidence of fetal abnormalities such as mental retardation and physical anomalies that are linked with maternal drinking.

"The risk of fetal loss associated with various levels of alcohol consumption is also unresolved. Until these issues are resolved, pregnant women should limit themselves to no more than an occasional drink." □

Exhibit on Historic Hospitals Opens at NLM on Oct. 29

The Hospital of St. Cross, Winchester, England (1444) was built for elderly men. This photo shows some of the retirees returning from church in 1979.

An exhibit depicting the combined historical, visual, social, religious, and human aspects of the hospital as an institution opens in the National Library of Medicine's main lobby Oct. 29.

"The Historic Hospitals of Europe, 1200–1981" is primarily a collection of several hundred photographs and accompanying text material on loan to NLM through the courtesy of their owner, Mrs. Grace Goldin.

Mrs. Goldin, well-known as a poet and photographer, has also written and lectured extensively on the history of hospitals. She is best known in this connection as coauthor (with John D. Thompson) of the volume, *The Hospital: A Social and Architectural History* (New Haven, 1975).

The exhibit will remain on display through Apr. 1, 1985. An illustrated brochure is available on request from the NLM History of Medicine Division.

Mrs. Goldin photographed many of the oldest surviving European hospitals during a series of trips over nearly 20 years. Some were used to illustrate *The Hospital,* but many have been reserved for this highly personal exhibit.

Mrs. Goldin's materials were originally displayed in virtually the same format in 1983 at the Wangensteen Library of the University of Minnesota. The staff of NLM is indebted to Prof. Leonard G. Wilson of that institution for bringing the exhibit to its attention and for arranging its shipment to Bethesda.

The photographs, many in color, cover a wide spectrum of subjects including "Insane Asylums through the 18th Century," "Mental Hospital—19th & 20th Centuries," "The Nightingale Ward, St. Thomas's Hospital, London," "Homes for the Aged," "Spanish Hospitals," "Hospital Pharmacies," "Sick Ward, St. Johns Hospital, Bruges," and "St. Christopher's Hospice, London."

The exhibit was prepared for showing at NLM by James Cassedy of the History of Medicine Division and Daniel Carangi of the Lister Hill Center, with the assistance of Mrs. Goldin. In addition to Mrs. Goldin's work, the exhibit includes a selection of historical works pertaining to European hospitals from NLM's collection.

'Old Hospitals' Slide Show Scheduled at Lister Hill

The History of Medicine Division announces a special slide presentation on "Historical and Aesthetic Aspects of Old Hospitals, 1200-1980." The program will be given on Thursday, Nov. 1, at noon, in the Lister Hill Center Auditorium (Bldg. 38A) by Grace Goldin, a noted photographer, poet, and historian of hospitals.

The presentation has been arranged as an adjunct to Mrs. Goldin's exhibit, "Historic Hospitals of Europe," which goes on display in the Bldg. 38 lobby Oct. 29.

Through her slides, Mrs. Goldin will examine the artistic distinction and architectural loveliness of many of the old hospital structures, and explain the humane traditions which have come down to the present from them. The program will last for 1 hour. □

STEP Offers Data Base Session

Staff Training in Extramural Programs (STEP) will present a seminar on the IMPAC (Information for Management Planning, Analysis and Coordination) Data Base in the Lister Hill Auditorium (Bldg. 38A) from 1:30 to 4:30 p.m. on Thursday, Nov. 8.

Paul J. Wintermeyer, chief, Statistics and Analysis Branch, Division of Research Grants, will provide an overview of the IMPAC Data Base, information and files stored within it, the kind of information that can be obtained from it and a variety of potentials for its use.

Case Examples

Dr. Antonia Novello, executive secretary of the DRG General Medicine B study section, will provide case examples in which this data base solved or facilitated the solution of problems in various extramural activities.

No advance registration is required; registration will begin at 1 p.m. All extramural staff are invited to attend. For additional information, contact the STEP Program Office, Bldg. 31, Rm. 1B63, 496-1493. □

A heart full of affection is better than a mind full of knowledge.—Chas. Dickens

Study Looking at Urban Stressors Needs Employees From Bldg. 10

As part of a study examining urban stressors, a team of Uniformed Services University of the Health Sciences (USUHS) researchers is interested in the relationship between commuting and health.

All commuters who are full-time employees working in Bldg. 10, are needed to participate in the study, which will be conducted in Bldg. 10.

Participation in the study will require 20 minutes before arrival at work on three consecutive mornings. Participants will receive $15. If interested, call 295-3278 between 9 a.m. and 4 p.m., Monday through Friday, and ask for Stacey, Monica or Linda. □

Tennis Club To Meet Nov. 14

The NIH Tennis Club has scheduled a final meeting for the 1984 season. The meeting will be held on Nov. 14, Bldg. 31, Conf. Rm. 4, at 12:15 p.m. to appoint new officers for the 1985 season.

Since the 1984 president and vice-president have both resigned, there is a need to fill these positions. If there are no volunteers for officers for the 1985 tennis season, the club and its funds will be turned over to R&W for possible disbandment. □

Dr. Joe-Hin Tjio, chief, Section on Cytogenetics, Laboratory of Cellular Biology and Genetics, NIADDK, has received the 1984 Japan Society for the Promotion of Science Fellowship Award for his "discovery of the exact human chromosome number and his scientific contributions in cytogenetics." Dr. Tjio's work will be presented at the Fujita-Gakuen Health University Oct. 10. Presentations will also be made at the Nagoya University, Hiroshima University, and the Tokyo Institute of Technology.

CAMP FANTASTIC

(Continued from Page 1)

It was a time of triumph and hope.

Mike, 16, emerged from the bus that first day at camp in a wheelchair. But a few days later, the children were hugging him as he struggled one leg at a time into the pool and found himself swimming for the first time. A brilliant smile lit his face as shiny blue eyes snapped from face to face.

Marcello, a spectacled young lad wearing an orange cap with the words "Camp Fantastic," hit the first bull's eye in an archery match. That moment "would always be a triumph" for him too, he said.

Even "Stormin" Norman, at 23 the oldest member of the "tribe," had his "precious moments" too.

One night as the music was playing and the campers gathered for a dance, "Stormin" walked away from his crutches and did his best impression of "Michael Jackson and the moon walk." The children clapped and danced around him in circles.

A Time for Courage

"If you have the will and the determination, and the faith of God to go on in this world, you can do anything," Norman said. "All of the children you see here have cancer, and they are the real heroes of the world."

For the second year in a row, the children have come here through the combined efforts of the nonprofit, fund raising organization Special Love, Inc., the Northern Virginia 4-H Educational Center (4-H Club), NIH Recreation and Welfare Inc. and NCI. The camp is the first of its kind to serve the Washington area, and one of about 40 such camps across the country.

The camp was founded by Tom Baker, a Winchester, Va., real estate developer, after his own daughter died of lymphoma 8 years ago. The operating cost of this 229-acre camp runs about $11,000 a year—about $275 per child. But most of the costs are provided through donations. Parents are asked to contribute $25.

The campers woke up at 7 in the morning, just as the pale violet mist rolled in from the mountains. And they gathered in tribes. They called themselves "Shawnee," and "Catawba," and "Cherokee."

And they had voracious appetites.

One day, the campers finished off 400 slices of bacon, 150 fried eggs, 15 gallons of milk, 36 pounds of green beans, 262 hot dogs, 9 pounds of macaroni, 116 slices of boiled ham, 18 packages of hot dog buns (12 in a pack), 205 cookies, and 15 pounds of spaghetti.

This did not include the morning and afternoon snacks, bowls of oranges, bags of potato chips, boxes of doughnuts, gallons of cola.

Sometimes their days at camp lasted long after midnight.

NIH R&W General Manager Randy Schools, one of the camp counselors, recalls being awakened at 4 o'clock in the morning by a group of children out on an expedition to find deer.

"Suddenly, the door of my room swung open," said Randy. "The next thing I knew I was in the middle of the woods, with a flashlight in my hands."

A Time for Tenderness

"*For many of these children, it is the first* time they have been away from home," said Attilio Framarini, one of the camp counselors. "But in a few days a special comradery develops, and their homesickness is gone."

One evening a few of the campers huddled together in the corner of their cabin. One boy said he was glad he had come to camp because some of his school mates had "stopped coming around," and he terribly needed "friends to play with."

The boy explained that once the parents of his friends learned he had cancer, they "stopped letting my buddies come over because they did not want to become emotionally involved." Another boy said some of his playmates believed his cancer was contagious.

In point of fact, cancer is not contagious. It cannot be spread from person to person like a cold, nor from an animal to a person.

It is estimated that 6,000 new cases of childhood cancer will be diagnosed this year, making cancer rare as a childhood disease. Despite its rarity, cancer is still the second leading cause of death among children.

"Some of these children here in camp have leukemia, lymphoma and various solid tumors," said Dr. Philip Pizzo, chief of NCI Pediatrics Branch. "Some of them are in remission, while others still have active disease."

Yet, Dr. Pizzo believes that with new diagnostic techniques and continuing research, "there is profound hope that the children in this camp will live out normal happy lives."

The young campers were never far from medical assistance.

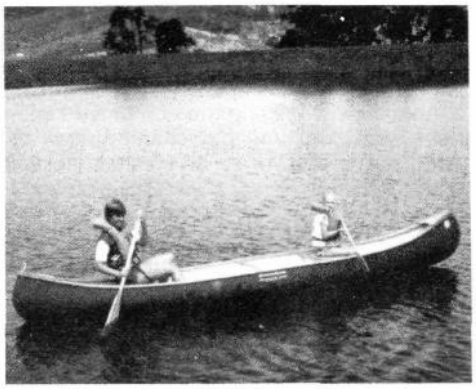
Doctors and nurses were on hand around the clock to perform blood tests and assure that the children received routine medications. A makeshift clinic was set up, complete with emergency room equipment and detailed medical histories of each camper were made available.

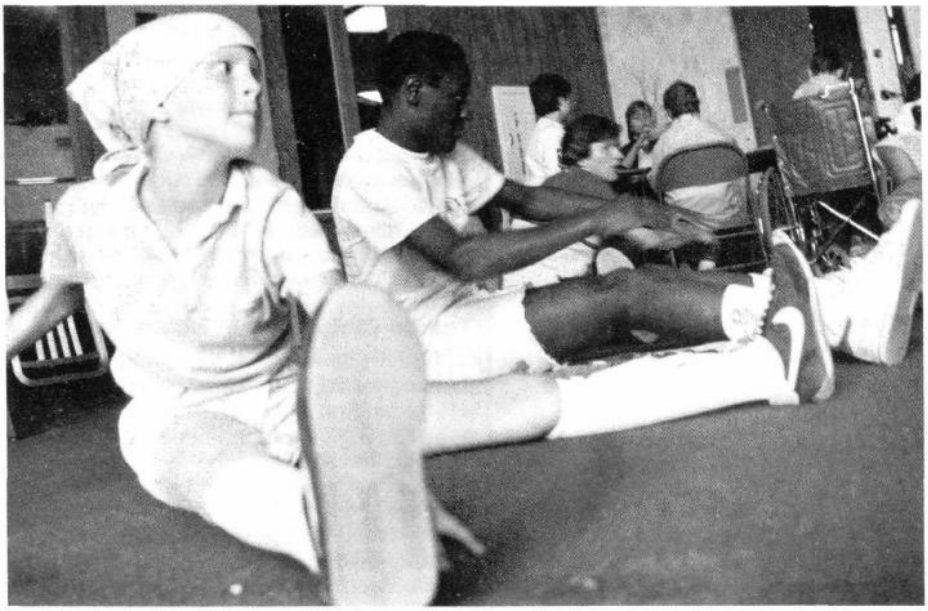
Special radio equipment was installed and local fire and police officials were alerted. Even medical supplies and a fresh crew of doctors and nurses were shuttled to the camp on a daily basis.

There were no major incidents this week, however.

"One of the camp counselors had a nose bleed and that was all there was," Dr. Pizzo said. "We wanted the children to have a regular experience away from the hospital experience and keep the doctor-patient relationship down to a minimum.

"It was amazing to see these children running and playing in the fields, where a few weeks before some were bedridden with oxygen and IV's."





A Time for Self-Esteem

For the second year, the National Cancer Institute sent a team of eight psychologists to determine what beneficial effects a camp like this would have on children with cancer. The researchers conducted taped interviews with the children before and after their camp experience.

"We're looking to see if there is a change in their self-esteem, in their feelings and fears about their illness after their camp experience," said Dr. Al Hollenbeck, an NCI visiting researcher for George Mason University.

"So far in this and previous studies we have seen that the camp experience increases the children's self-esteem and builds a sense of community, eliminating their fears about their illnesses," he said.

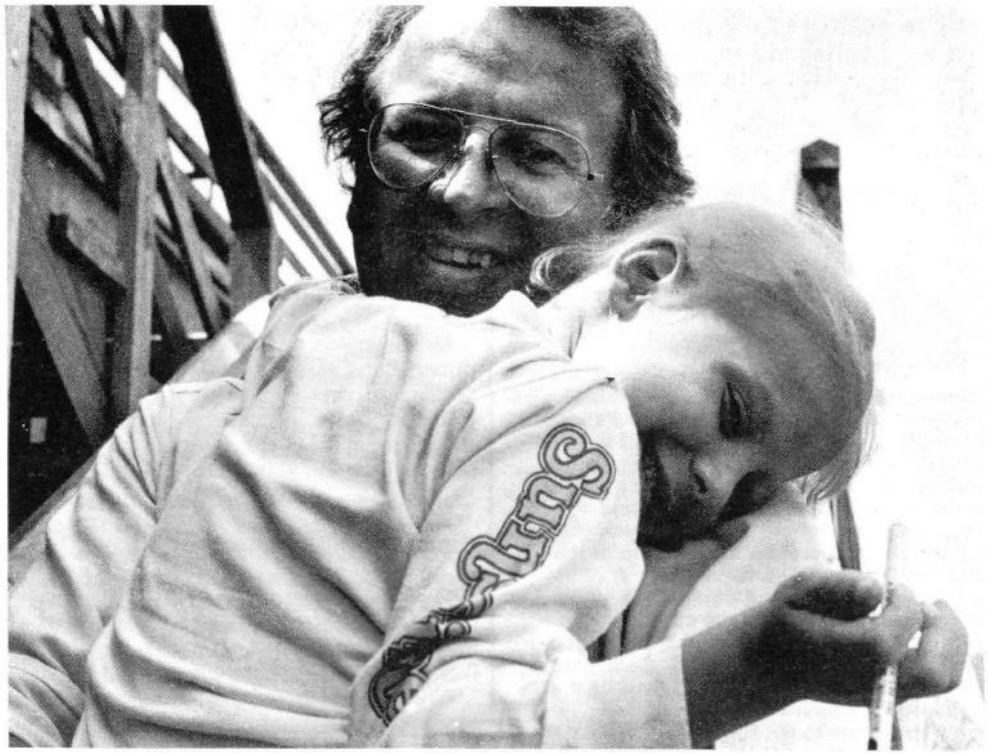
Finally, at the end of a drifting, easy week, running through meadows washed with wild flowers, the campers gathered for a final campfire.

As the sun turned deep rose at sunset, the children made small boats "to sail their wishes across the water." Then they symbolically crumpled up their fears in the palms of their hands and threw them into the ceremonial camp fire.

"Stormin" Norman stood at the edge of the camp absorbing the hazy gentle hills, a small backpack slung over his shoulder.

"I'll be back here again—'cause no day is lost when there is a memory," he said. □

Photos by Francis X. Mahaney, Jr.



R&W Manager Randy Schools and Friend

VISITING SCIENTISTS

Sponsored by Fogarty International Center

9/16 **Dr. Nadine Martinet,** France, Sponsor: Dr. George Martin, Laboratory of Developmental Biologics and Anomalies, NIAID, Bg. 30, Rm. 416.
9/17 **Dr. Takashi Agui,** Japan. Sponsor: Dr. John W. Kebabian, Experimental Therapeutics Branch, NINCDS, Bg. 10B, Rm., 5C108.
9/17 **Dr. Shuzo Sato,** Japan. Sponsor: Dr. Stanley I. Rapoport, Laboratory of Neurosciences, NIA, Bg. 10, Rm. 6C103.
9/17 **Dr. Zhang Wei,** China. Sponsor: Dr. Toichiro Kuwabara, Laboratory of Ophthalmic Pathology, NEI, Bg. 6, Rm. 211.
9/24 **Dr. Adrienne Liptak,** Hungary. Sponsor: Dr. Josef Pitha, Laboratory of Cellular and Molecular Biology, NIA, GRC, Baltimore.
9/24 **Dr. Zhang Yu-Lian,** China. Sponsor: Dr. C. Richard Schlegel, Laboratory of Tumor Virus Biology, NCI, Bg. 10, Rm. 2N109.
9/25 **Dr. Hee-Yong Kim,** Korea. Sponsor: Dr. James A. Yergey, Laboratory of Clinical Studies, NIAAA, Bg. 10, Rm. 3C212.
9/27 **Dr. Marie Rebiere,** France. Sponsor: Dr. Thomas Kindt, Laboratory of Immunogenetics, NIAID, Bg. 5, Rm. B104.
9/30 **Dr. Per Bjarne Bergsjo,** Norway. Sponsor: Dr. Howard J. Hoffman, Biometry Branch, NICHD, Landow Bg., Rm. 7C08.
9/30 **Dr. Satoshi Harashima,** Japan. Sponsor: Dr. Alan Hinnebusch, Laboratory of Molecular Genetics, NICHD, Bg. 6, Rm. 408.
9/30 **Dr. Chihiro Nishimura,** Japan. Sponsor: Dr. Jin H. Kinoshita, Laboratory of Vision Research, NEI, Bg. 6, Rm. 237.
9/30 **Dr. Surinder K. Vig,** India. Sponsor: Dr. Richard Hendler, Laboratory of Cell Biology, NHLBI, Bg. 3, Rm. B1-06.
10/1 **Dr. Anita Aggarwal,** India. Sponsor: Dr. Theodore E. Nash, Laboratory of Parasitic Diseases, NIAID, Bg. 5, Rm. 118.
10/1 **Dr. Graham Allaway,** Canada. Sponsor: Dr. Louis Notkins, Laboratory of Oral Medicine, NIDR, Bg. 30, Rm. 121.
10/1 **Dr. Shorheh Amini,** Iran. Sponsor: Dr. Peter Howley, Laboratory of Tumor Virus Biology, NCI, Bg. 10, Rm. 2N116.
10/1 **Dr. Yves Barra,** France. Sponsor: Dr. Gilbert Jay, Laboratory of Molecular Virology, NCI, Bg. 41, Rm. 200.
10/1 **Dr. Ioav Zvi Cabantchik,** Israel. Sponsor: Dr. Harvey Pollard, Laboratory of Cell Biology and Genetics, NIADDK, Bg. 4, Rm. 312.
10/1 **Dr. Henryk Eisenberg,** Israel. Sponsor: Dr. Gary Felsenfeld, Laboratory of Molecular Biology, NIADDK, Bg. 2, Rm. 301.
10/1 **Dr. Maris Hartmanis,** Sweden. Sponsor: Dr. Thressa Stadtman, Laboratory of Biochemistry, NHLBI, Bg. 3, Rm. 103.
10/1 **Dr. Hiroshi Higuchi,** Japan. Sponsor: Dr. Erminio Costa, Laboratory of Preclinical Pharmacology, NIMH, St. Elizabeth's Hospital.
10/1 **Dr. Toshiharu Ito,** Japan. Sponsor: Dr. Hideo Kon, Laboratory of Chemical Physics, NIADDK, Bg. 2, Rm. B1-14.
10/1 **Dr. Djuro Josic,** Yugoslavia. Sponsor: Dr. William Jakoby, Laboratory of Biochemistry and Metabolism, NIADDK, Bg. 10, Rm. 9N109.
10/1 **Dr. Goeh Jung,** Korea. Sponsor: Dr. Edward D. Korn, Laboratory of Cell Biology, NHLBI, Bg. 3, Rm. B1-20.
10/1 **Dr. Jean-Pierre Kahn,** France. Sponsor: Dr. David Rubinow, Biological Psychiatry Branch, NIMH, Bg. 10, Rm. 4C418.
10/1 **Dr. Takashi Kaku,** Japan. Sponsor: Dr. Edward G. Lakatta, Laboratory of Neurosciences, NIA, GRC, Baltimore.
10/1 **Dr. Kamel Khalili,** Iran. Sponsor: Dr. George Khoury, Laboratory of Molecular Virology, NCI, Bg. 41, Rm. 200.

The Division of Research Services has an unusual asset in its Combined Federal Campaign activities—a permanent CFC coordinator who spearheads DRS's drive every year. Ed Wellner of the Biomedical Engineering and Instrumentation Branch volunteered last year to undertake the responsibility on a permanent basis, and fulfills it with energy and creativity. Last year DRS achieved 150.3 percent of its goal. John Smart, executive officer (l), opened the DRS 1985 Combined Federal Campaign by presenting Mr. Wellner (r) with a framed certificate honoring him for his commitment to helping others and his effective use of incentives to encourage participation.

Drs. L. Heppel, I. Gunsalus Return as Fogarty Scholars

Dr. Leon Heppel returned to the NIH recently to complete his term as a Fogarty Scholar-in-Residence. Dr. Heppel spent 25 years at NIH, leaving in 1967 to become professor of biochemistry and molecular biology at Cornell University.

Dr. Heppel has gained an international reputation in two very different fields, in nucleic acid biochemistry and in the biochemistry of membrane structure and function. Together, these two fields are related in one way or another to almost every major problem of cell biology and biochemistry.

He will be on campus, with office space at the Stone House (496-1213), until January 1985.

Another returning Fogarty Scholar-in-Residence is *Dr. Irwin C. Gunsalus,* professor of biochemistry at the University of Illinois, who will be here until December 1984.

Prof. Gunsalus is well-known for his research in many areas of biochemistry. In a series of classic papers, he elucidated the role of the vitamin pyridoxine.

During his scholarship, Dr. Gunsalus will be associated with several laboratories including the Laboratory of Biochemistry, NHLBI. He will also have an office in the Stone House (496-1213). □

Preschool Has USDA Funds For Free, Reduced-Price Meals

The NIH Preschool Developmental Center has a policy of free and reduced-price meals for children enrolled in the child care center.

Funding for these meals by the U.S. Department of Agriculture depends upon the economic level of the individual children. Children from families whose income is at or below that shown below are eligible for free or reduced-price meals.

Families not meeting these criteria but with unusual expenses—such as unusually high medical charges, housing costs of more than 30 percent of gross income, special education expenses due to the physical or mental condition of a child, and disaster or casualty losses—are urged to apply.

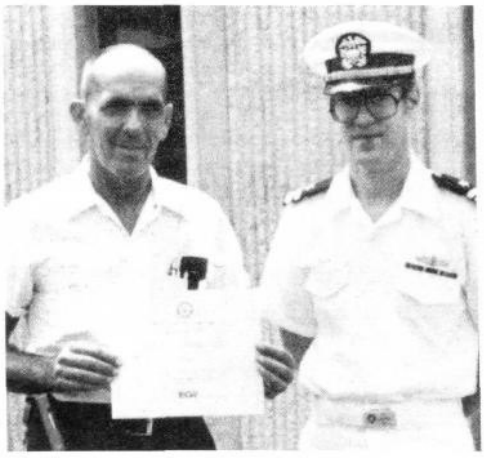
Fee assessment forms filled out at the time of application to the program are used to determine eligibility.

If a family's circumstances change, such changes could make the children eligible for additional benefits, and a new application should be filed.

Local officials have adopted the following family-size income for determining eligibility:

Family Size	Guidelines for Free Meals	Guidelines for Reduced Price Meals
1	$ 6,474 annual	$ 9,213 annual
2	8,736	12,432
3	10,998	15,651
4	13,260	18,870
5	15,522	22,089
6	17,784	25,308
7	20,046	28,527
8	22,308	31,746

For more information, call 496-5144. □

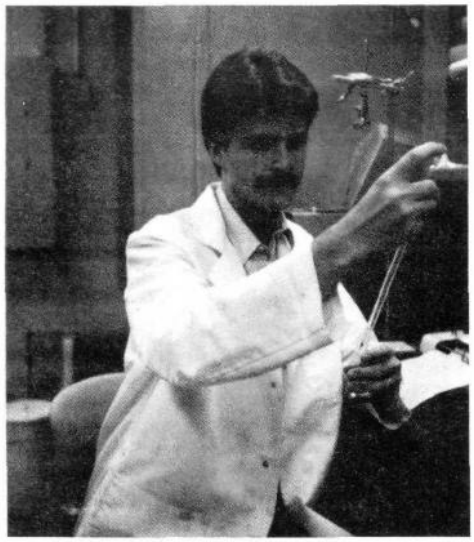


Eugene Harlow (l) of NIEHS recently received a certificate of appreciation from the National Committee for Employer Support of the National Guard and Reserve. The award is sponsored by the U.S. Department of Defense to recognize specific supervisors and employers throughout the Nation who provide supportive cooperation to members of the National Guard and Reserve Units in scheduling training and other military programs. Mr. Harlow is the supervisor of the Bldg. 101 operations unit of the Office of Facilities Engineering at NIEHS. Commanding Officer of the Center, Lt. Mike West, USN, (r) presented the award and offered congratulations to Mr. Harlow at a special staff meeting of NIEHS' Office of Facilities Engineering.

GRC Technician Receives Student Research Award

Mark Reynolds, a psychology technician at the National Institute on Aging's Gerontology Research Center (GRC) in Baltimore, has won the 1984 Walter Nicolai Award. This honor is presented annually by the American Aging Association to an "outstanding student in biomedical gerontology."

Mr. Reynolds' award will be presented, in part, for a research paper on which he collaborated, entitled, "The relationship of serum uric acid to behavioral, metabolic, and lifespan parameters among inbred mice." The paper will be published in *Age*.



Mark Reynolds, shown here in his laboratory, is the winner of the 1984 Walter Nicolai Award. He will receive $1,000 from the American Aging Association.

In addition to holding a position at the GRC, Mr. Reynolds is currently a student at the University of Maryland Dental School. At the center, he works in the Molecular Physiology and Genetics Section of the Laboratory of Cellular and Molecular Biology.

His award-winning paper, as well as recent investigations, have been done in collaboration with Drs. Donald Ingram and Richard Cutler of the same section at GRC. He previously worked under the guidance of the late Dr. Charles Goodrick, one of the foremost experts in the field of aging effects on animal behavior.

Mr. Reynolds has coauthored some 30 publications as a result of his research at the GRC or at other facilities.

The $1,000 award will be presented at the annual meeting of the American Aging Association, Oct. 19, in New York City. □

Camera Club Meets Nov. 13

The next meeting of the NIH-R&W Camera Club will be held on Tuesday, Nov. 13, in Bldg. 31, Conf. Rm. 4, at 7:30 p.m. The theme for the judging will be on *Nature*.

All NIH employees and members of their families are welcome.

For more information call Leroy Kerney, 496-3407, or Catherine Quigley, 496-3261. □

Dr. Peter Howley Named Chief of NCI's New Laboratory of Tumor Virus Biology

Dr. Peter Howley has been named chief of the new Laboratory of Tumor Virus Biology in the NCI Division of Cancer Etiology. The laboratory was established to conduct research on the events that occur in cancer development in human and animal cells, including critical cellular and molecular factors contributing to virus-associated cancer development.

Dr. Howley came to NIH in 1973 as a postdoctoral research associate in the NIAID Laboratory of Biology of Viruses, where he worked with Dr. Malcolm A. Martin. Two years later he moved to the Laboratory of Pathology in NCI's Division of Cancer Biology and Diagnosis. In 1979, he became chief of that laboratory's Viral Oncology and Molecular Pathology Section.

His recent research has focused on the papillomaviruses, a group of viruses that store their genetic information in the form of DNA. Some papillomaviruses produce cancers in animals, and some scientists believe these viruses may be associated with certain human cancers.

Dr. Howley and his coworkers were the first to clone papillomavirus DNAs in bacteria. These cloned DNAs have helped researchers learn more about the molecular biology of the papillomaviruses.

Dr. Howley received his A.B. in chemistry from Princeton in 1968, and his medical degree from Harvard in 1972.

He is a member of Sigma Xi and received a USPHS Commendation Award in 1980. In 1983, he received the Warner-Lambert/Parke-Davis Award, an annual prize awarded to a scientist less than 40 years of age for meritorious research in experimental pathology.

He is on the editorial boards of *The Journal of Virology, The American Journal of Pathology,* and *Somatic Cell Genetics,* and is the author or coauthor of more than 60 papers. □

Four New Members Appointed to NIADDK Advisory Council

Four new members have been appointed to 4-year terms on the National Arthritis, Diabetes, and Digestive and Kidney Diseases Advisory Council. The new members are Dr. Irwin M. Freedberg, Dr. William N. Kelley, Dr. Ernst R. Jaffe, and J. Richard Munro.

The council, established in 1950 by Congress, is composed of 18 members who are prominent in science, education, and public affairs. At the council's recommendation, and after extensive initial scientific review, funds are awarded by NIADDK to scientists in hospitals, universities, and other institutions throughout the United States for basic and clinical research.

Dr. Freedberg is professor of dermatology and chairman of the department of dermatology at the New York University Medical Center in New York City. He received his M.D. degree from Harvard Medical School in Boston in 1956. He is a leader in dermatology research and was president of the Society for Investigative Dermatology in 1982. He has also served as a member of the Board of Scientific Advisors for the NCI Division of Cancer Biology and Diagnosis.

Dr. Kelley is professor and chairman of the department of internal medicine and professor of biological chemistry at the University of Michigan Medical Center in Ann Arbor. He is internationally recognized for his research in the area of metabolism and metabolic diseases. He received his M.D. degree from the Emory University School of Medicine in Atlanta, Ga., in 1963.

He currently is president of the American Society for Clinical Investigation and is chairman-elect of the American Board of Internal Medicine. He also has served on the editorial boards of the *Journal of Biological Chemistry,* the *Journal of Clinical Investigation,* and the *Annals of Internal Medicine.*

Dr. Jaffe is a professor and senior associate dean of the Albert Einstein College of Medicine in New York City. He received his M.D. degree from the University of Chicago School of Medicine in 1948.

He is a leading investigator and teacher in hematology and has conducted research into the etiology (causes), diagnosis, treatment, and prevention of blood disorders. He belongs to numerous medical organizations, including the American Society of Hematology and the Association of American Physicians.

Mr. Munro is the president and chief executive officer of Time, Inc. He has made significant contributions in the communications industry, particularly in the areas of books, magazines, newspapers, film, and cable television. He received his bachelor of arts degree from Colgate University in Hamilton, N.Y., in 1957 and did graduate work at Columbia University and New York University.

Active in a variety of civic affairs, he is a director of the New York Chamber of Commerce and Industry, a trustee of Colgate University, and an active supporter of the Juvenile Diabetes Foundation. □

High Achievement Program Needs Volunteer Tutors

The Higher Achievement Program (HAP) needs adult volunteers to tutor academically talented students in grades four through nine. HAP works with students from low-income neighborhoods throughout Northwest and Southeast Washington, challenging them to excel in math, reading and vocabulary.

HAP needs people to tutor one or, preferably, two evenings a week from 6:15 to 8:30, Monday through Thursday, beginning in October.

HAP has over 900 students enrolled citywide. In order to keep its student-tutor ratio low, it needs at least 350 volunteers. Those interested in community service can get involved at one of HAP's seven centers.

For further information, please contact Alison Heston at 462-4465. □

Beware of no man more than thyself.—Thomas Fuller

Dr. Dennis Johnsen, VRB, Gets PHS Service Medal

Dr. Dennis O. Johnsen, Veterinary Resources Branch, Division of Research Services, recently received the Outstanding Service Medal for PHS Commissioned Officers after serving almost 5 years on detail as international health representative for the South Asian region and scientific and technological attaché at the United States Embassy in New Delhi, India.

Dr. Dennis Johnsen's daughter Cyndy was present when he received the PHS Outstanding Service Medal from Dr. C. Everett Koop, Surgeon General.

Dr. C. Everett Koop, Surgeon General, presented the award on the occasion of Dr. Johnsen's return to NIH to assume new duties in the Veterinary Resources Branch. He is now chief of the veterinary medicine and surgery section, VRB.

Dr. Johnsen was recognized for outstanding performance that included "effectively promoting expanded U.S.-Indo cooperation in areas of importance to the United States and to the health of the American people, and for successfully overseeing in India the planning and initial implementation of the new U.S.-Indo Science and Technology Initiative."

In that initiative, 24 projects were begun in less than 1 year including studies of immunological approaches to problems of leprosy, tuberculosis, malaria, and filiariasis; prevention of blindness, and reproduction, contraception, and infertility. □

NIH Hockey Club Resumes

The NIH Hockey Club will resume its season Oct. 25, from 10:30 to midnight, at the Wheaton Ice Rink, and will skate every Thursday evening until March.

New members are welcome. For further information call Gary Murray, 496-1465 or Pierre Henkart, 496-1554. □

Magnetic Device Developed by NIADDK Grantee Measures Iron Content of Body From Outside

By Jim Fordham

Patients suffering from iron depletion anemia or from iron overload disorders (such as Cooley's anemia or hereditary hemochromatosis) have abnormal levels of body iron which must be regulated.

NIADDK grantee Dr. John Harris and his associate Dr. Gary Brittenham at the Case Western Reserve University School of Medicine in Cleveland have developed a magnetic device that can be used outside of the body to determine its iron content. This device is the only instrument of its kind in the world at the present time.

"It allows direct measurement of liver iron stores," said Dr. Harris, "which fortunately reflect the proportion of iron stores throughout the body."

The device will allow earlier identification of patients at risk of iron overload. Methods to assess the amount of body iron have—until now—depended on indirect, relatively insensitive techniques or invasive procedures such as liver biopsy (removal of tissue from the liver). The new technique is direct, noninvasive, and more reliable, accurate, and practical than previous methods.

The instrument, known as a superconducting quantum-interference device (SQUID) susceptometer, consists of a 3 × 1 × 1 foot rectangular box containing coils of superconducting material in a Dewar flask vacuum bottle that holds liquid helium at close to absolute zero. When the equipment is placed on the patient's abdomen directly over the liver, a small magnetic field is generated that induces a measurable response to the iron stored in the liver. The instrument can measure liver iron content in less than 1 minute.

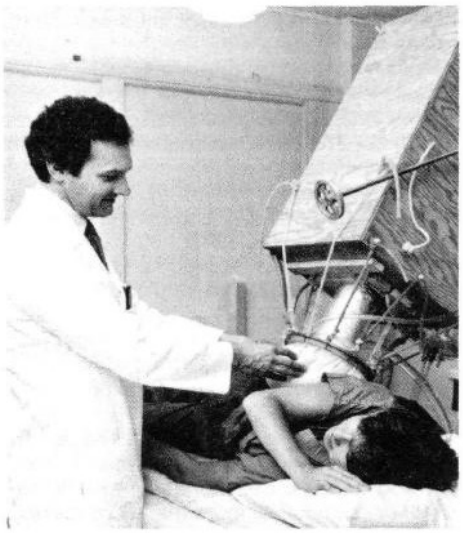
"One great advantage is that you don't have to subject the patient to the hazards and discomfort of a liver biopsy," said Dr. Harris. "Another advantage is that the results will not be affected by incidental infections, or hepatitis, or any other problem that might arise."

So far about 200 patients have been tested with the instrument, and many more are expected to be referred for the test by physicians in the U.S. and abroad. Candidates include patients with Cooley's anemia, aplastic anemia, and liver and kidney diseases, among other disorders.

Dr. Harris said the SQUID will enable clinicians to identify patients with iron deficiency anemia before symptoms appear. He is developing a similar instrument that he believes will become an important diagnostic tool for measuring the amount of iron in the heart, allowing physicians to assess cardiac dysfunction from iron overload.

"It can be used repeatedly as a screening technique, because it is safe and easy, and patients accept it as a repeated procedure," he said.

Dr. Arthur Nienhuis, chief of NHLBI's Clinical Hematology Branch, regularly sends patients to Cleveland to have their body iron measured with the SQUID. Dr. Nienhuis and his colleagues are studying 70 patients with Cooley's anemia, a severe genetic disease,



Dr. Gary Brittenham measures a patient's liver iron stores using the superconducting quantum-interference device (SQUID) susceptometer at the Cleveland Metropolitan General Hospital.

and other bone marrow disorders. These patients receive regular blood transfusions, and therefore accumulate iron progressively.

The ongoing study, begun in 1975, is designed to determine the effectiveness of deferoxamine, an iron chelating (removing) compound, in preventing the fatal complications of iron overload. "The SQUID has been extraordinarily helpful in estimating the accumulation of iron in these patients," said Dr. Nienhuis.

Most of the Cooley's anemia patients are between 4 and 22 years old. Throughout the year, they self-administer deferoxamine at home, using a special pump that infuses the drug slowly under the skin. Once a year, they come to NIH for an evaluation that includes a trip to Dr. Brittenham's laboratory in Cleveland to assess their body iron accumulations.

Dr. Brittenham is collaborating with Dr. Nienhuis in the assessment of the Cooley's anemia patients treated with deferoxamine. "We are still in the midst of evaluating the data," said Dr. Nienhuis, "but already we know that patients who use the drug regularly have much lower liver iron concentrations than the patients who use the drug infrequently or not at all."

The SQUID also enables the researchers to correlate accurate body iron measurements with results of periodic tests that reveal levels of heart or liver damage, or dysfunction of the endocrine glands. Data from the study suggest that patients with lower body iron have less dysfunction of these organs.

Although it will be a year or two before the correlation of the study data is completed, Dr. Nienhuis and his colleagues have found the use of both deferoxamine and the SQUID "quite encouraging."

"SQUID is really the best measure we have of how effective the chelation therapy is," he said, "and it seems to be very effective." □

Ex-NIAID Grantee Shares Nobel Prize for Medicine

The National Institute of Allergy and Infectious Diseases provided early support to Nobel Prize winner, Dr. Niels K. Jerne, for his research on antibody formation at the cellular level.

Dr. Jerne, a London-born Dane, was head of microbiology at the University of Pittsburgh School of Medicine in Pennsylvania from 1962 through 1966 and was funded by NIAID—first under a training grant and then a research grant. He also received support for 1967 while at the Paul Erhlich Institute in Germany.

He is currently an adviser to Pasteur Institute in Paris.

He developed the "network theory" of the immune system. It is an elaborate and logical explanation of the processes by which the body's immune system rises to the occasion when needed to fight disease, and then falls back into inactivity when not needed.

Dr. Jerne was selected as a corecipient of this year's Nobel Prize in medicine and physiology in recognition of the impact his pioneering theories have had in stimulating research in immunology. □

Dr. Paul Plotz, NIADDK, Gets Philip Hench Award

Dr. Plotz

Dr. Paul H. Plotz, chief, Section on Connective Tissue Diseases, Arthritis and Rheumatism Branch of the National Institute of Arthritis and Rheumatism Branch of the National Institute of Arthritis, Diabetes, and Digestive and Kidney Diseases is the recipient of the 1984 Philip Hench Award given by the Association of Military Surgeons of the United States for outstanding contributions in the field of rheumatology and arthritis. This award is presented annually in memory of the late Dr. Philip S. Hench who first used cortisone in the treatment of arthritis.

Dr. Plotz' scientific interests center on the immunogical aspects of rheumatoid arthritis and systemic lupus erythematosus. His current work concerns the relationship between viruses and autoantibodies in autoimmune connective tissue diseases.

He will receive the award at the 91st annual meeting of the military surgeons association on Monday, Nov. 5. □

ALZHEIMER'S

(Continued from Page 1)

new ideas," said ADRDA President Jerome Stone.

Guidelines Developed

Guidelines for the centers were developed by NIA together with the National Institute of Neurological and Communicative Disorders and Stroke, the National Institute of Mental Health, and the National Institute of Allergy and Infectious Diseases.

Directors of the new centers are Drs. John Growdon, Harvard Medical School; Donald L. Price, The Johns Hopkins Medical Institutions; Kenneth L Davis, Mt. Sinai School of Medicine; Robert Katzman, University of California-San Diego, and Caleb Finch, University of Southern California.

Kinds of Research

Some examples of the kind of research which will be conducted at each of the five centers follow:

• *Johns Hopkins Medical Institutions:* Researchers will try to identify the cellular basis for varying symptoms and courses of the disease among different Alzheimer patients. A large group of patients will be followed over time, with lab and neuropsychological tests being given. After death, investigators will examine changes in brain chemistry and structure. They will also correlate clinical signs of the disease with pathological changes in the brain and attempt to identify subtypes of Alzheimer's Disease.

• *University of Southern California School of Medicine* (in collaboration with California Institute of Technology, Beckman Research Institute of the City of Hope and the University of California at Irvine):

Researchers will analyze the cellular and molecular mechanisms underlying Alzheimer's disease as well as the structure and chemistry of brain tissue from diseased Alzheimer victims. Collaborators will work on various projects ranging from basic studies of neurotransmitter receptors to clinical studies of drug treatments for AD patients.

• *Harvard Medical School/Massachusetts General Hospital* (in collaboration with the University of Massachusetts Medical Center and the Massachusetts Institute of Technology):

Some studies will target on changes in brain chemistry during Alzheimer's disease, including the distribution of neurotransmitters and enzymes in brain tissue of dead AD victims. Other studies will focus on protein synthesis and breakdown in the brain, in an attempt to explain why protein synthesis declines and cell death increases in the brains of Alzheimer victims.

• *Mt. Sinai School of Medicine/Bronx VA Medical Center:* Research at this center will seek drugs which can counter the drastic loss of learning and memory capacity in AD patients because of a decline in the acetycholine neurotransmitter system. They will also evaluate drug treatments for depression and AD patients and develop an animal model to study the effects of AD damage to various neurotransmiter and neuropeptides systems.

• *University of California, San Diego School of Medicine* (in collaboration with the Scripps Clinic and Research Foundation and Salk Institute for Biological Studies):

This program will correlate structural and chemical changes in the brains of Alzheimer victims with changes in neurologial and mental functions in patients. Using brain tissue from deceased patients, scientists will measure nerve cell loss, identify changes in neurotransmitter and neuropeptide activity and try to characterize (identify) the abnormal proteins that accumulate in the brains of Alzheimer patients. □

Sons of Italy Will Hold Anniversary Dance Nov. 3

The first anniversary dinner/dance of the NIH Lodge No. 2547 of the Sons of Italy in America will be held Saturday, Nov. 3, at the Argyle Country Club on Layhill Road off Georgia Ave. extended, in Silver Spring, Md.

Preceding the evening's social activities, new officers for the 1984-85 year will be installed, and new members inducted.

A delightful evening of music, excellent food and dancing is planned, beginning with a cash bar/cocktail hour at 5:30 p.m., followed by dinner and dancing until 11 p.m.

The dinner menu will include lasagna, chicken cacciatore, Italian sausage with peppers and onions, zucchine, fried eggplant, and garlic bread—a typical Italian meal—topped off with ice cream, coffee and tea.

Tickets are $20 per person, and may be obtained from Dr. Daniel Cowell, 496-3515; Isabel Phillips, 496-5366; Nina Baccanari, 946-1780; and Dr. Ken Graziano, 443-4864. Checks, made out to the NIH Lodge No. 2547, OSIA, may be sent to any of the above individuals.

Note: you don't have to be Italian to join the lodge. All lovers of Italian art, history and food are welcome to join and/or attend this first anniversary dinner/dance. □

Therapeutic Recreation Conference to Meet Here

Therapeutic recreation specialists will gather on the NIH campus Monday, Nov. 5, for an annual statewide conference, hosted by the CC Patient Activities Department.

Dr. Daniel Cowell, CC associate director for medical education, will deliver the keynote address: "The Coming of Age of a Clinical Field: Progress, Prospects and Responsibilities in Therapeutic Recreation." A discussion will follow Dr. Cowell's remarks.

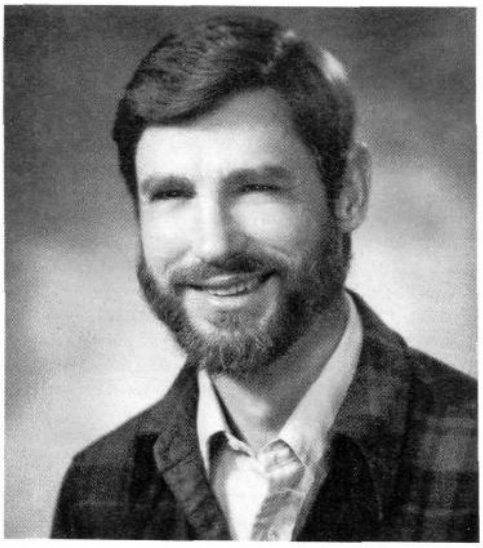
Other sessions will include presentations on third party reimbursement, programming for Alzheimer's patients, transitional programming for patients moving from institutions to community settings, planning and conducting in-service training, and a legislative update pertinent to therapeutic recreation services.

"By hosting this conference, the Patient Activities Department can orient other therapeutic recreation specialists from around the state to the unique services delivered here at the Clinical Center," said Arnold Sperling, chief of the department.

For further information on the conference, call Mr. Sperling on 496-2276. □

A wise man knows everything; a shrewd one, everybody.—Anonymous

Dr. Lynn Loriaux Selected For Toastmasters' Award



Dr. Loriaux

Dr. D. Lynn Loriaux, clinical director, National Institute of Child Health and Human Development, has been selected by the NIH R&W Toastmasters Club to receive the Toastmasters International Communication Achievement Award.

The award is presented annually by the club to recognize outstanding communicators in the community.

The presentation will be made by Diane Rose, president, at a special open program on Friday, Nov. 2 at noon in Wilson Hall, Bldg. 1.

Dr. Loriaux will be cited for "outstanding achievements and contributions to communications excellence." An effective communicator in any situation, Dr. Loriaux has been particularly praised by the FAES students in his endocrinology course for his outstanding and effective communication in the classroom.

Celebrating its 15th anniversary on Oct. 29, the Toastmasters Club has served NIH and the community in developing skills in communication and leadership.

The meeting will also feature a seminar on using humor by Hugh Burgay, a Federal employee and professional speaker.

The NIH R&W Toastmasters Club meets every Friday at noon in Bldg. 31, Rm. B2C05. Guests are always welcome. □

DIET

(Continued from Page 1)

reviewing advertising copy to assure that the references to NCI's diet messages were accurate, and allowing the company to include NCI's address in the print ads.

In a letter to NCI staff, Dr. Vincent T. DeVita, Jr., NCI Director, said that the Institute was pleased to cooperate in the venture because it infuses large private resources into NCI's campaign to let Americans know how they can take individual action to reduce their risk of cancer.

The Institute is not endorsing Kellogg's or its products, and is not dealing with the company on an exclusive basis. □

Replacement of Brain Cells—Possibly in Man—Subject of NIH Lecture on November 7 at CC

Does the human brain generate new cells throughout life to provide fresh space for new learning?

Research on canary brains being conducted by Dr. Fernando Nottebohm may soon answer this question.

Dr. Nottebohm, director of the Rockefeller University Field Research Center for Ethology and Ecology, will present the NIH Lecture at 8:15 p.m. on Wednesday, Nov. 7, in the Clinical Center's Masur Auditorium.

Dr. Nottebohm's lecture, "Neuronal Replacement in Adulthood: Its Possible Relation to Learning," will focus on his observations that male canaries exhibit seasonal increases in brain size.

In canaries, only the male bird sings and this singing is related to mating behavior. Each singing canary is capable of learning a new song every year.

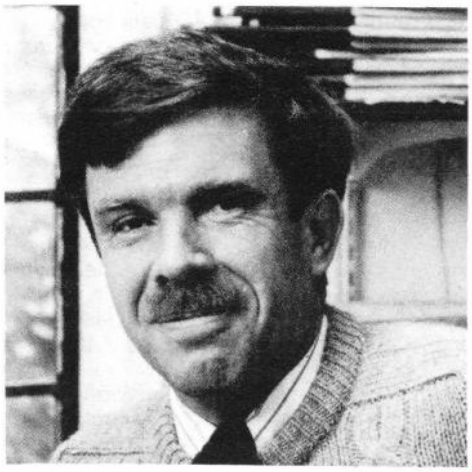
Dr. Nottebohm and his colleagues have found that while the male canary is learning his new song each spring, those areas of his brain which control vocal behavior are twice their normal size, suggesting the development of new brain cells. Once the male has mastered his new song, the affected brain areas shrink back to their original dimensions.

This seasonal swelling and shrinking correlate with seasonal changes in the production of the male sex hormone testosterone. When Dr. Nottebohm injected female canaries with this hormone, the vocal control areas of their brains also increased in size and the females started to sing.

Dr. Nottebohm's research raises several interesting questions about sexual dimorphism in brain anatomy and about the brain's ability to regenerate old cells or to generate new ones.

It long has been believed that by the end of infancy, humans have all the brain cells they will ever have, and that as brain cells die with age or are destroyed by injury or disease, they are never replaced. Dr. Nottebohm's research challenges this belief.

Although there have been previous reports of new neurons growing in the brains of adult fish and in some postpubertal rodents, there has never been any finding of new brain cell growth as pronounced or as widespread as that which Dr. Nottebohm has observed in canary brains.



Dr. Nottebohm

Dr. Nottebohm believes that even if it turns out that humans do not generate new brain cells in adulthood, the work on canary brains may lead to new ways to stimulate such growth after brain injury or to overcome some of the effects of aging.

In addition to heading the ethology and ecology field research center at Rockefeller Univeristy, Dr. Nottebohm is a full professor at the university. He has been at Rockefeller University since 1967, soon after he received his Ph.D. in zoology from the University of California at Berkeley.

Dr. Nottebohm has published extensively. He is a fellow of the American Association for the Advancement of Science and of the American Academy of Arts and Sciences. He was the 1982 recipient of the Kenneth Craik Research Award of St. John's College, Cambridge University, England for outstanding scholarship in the area of physiological psychology.

Dr. Nottebohm's NIH Lecture is hosted by the National Institute of Child Health and Human Development. It is open to the public. For more information, call Patricia Blessing or Michaela Richardson at 496-5133. □

National Toxicology Program Releases Cancer Testing Report

The HHS' National Toxicology Program (NTP) has just released the *Report of the Ad Hoc Panel on Chemical Carcinogenesis Testing and Evaluation.*

The report fulfills a request at the Mar. 14, 1983, NTP Board of Scientific Counselors' Meeting that an expert group review the basic biology of chemical carcinogenesis and recommend methods the NTP should use for the detection and evaluation of chemical carcinogens.

Dr. John Doull, professor, department of pharmacology and toxicology, University of Kansas Medical Center, Kansas City, was appointed chairman of the 16-member ad hoc panel.

The report contains three chapters: Report on Short Term Tests, Report on Subchronic Studies and Related Issues, and Report on Design of Chronic Studies. Each contains extensive recommendations.

Copies of the *Report of the Ad Hoc Panel on Chemical Carcinogenesis Testing and Evaluation* are available without charge from: NTP Public Information Office, MD B2-04, Box 12233, Research Triangle Park, NC 27709; telephone: (919) 541-3991; FTS: 8-629-3991. □

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