Second ‘Eat Well, Be Well’ Videotape Series To Be Aired on PBS Early This Year

The second “Eat Well, Be Well” videotape series has been completed and will be beamed to all Public Broadcasting System (PBS) stations by satellite early in 1983. Due to the wide public and professional acceptance of the first series, Metropolitan Life Insurance Company, and Dr. Marvin Nowak Associates, awarded a grant to Aramark Nowak Associates to produce the sequel, “Eat Well, Be Well II.” It includes fourteen 7-minute videotape segments that explain the role of nutrition in health promotion and disease prevention. Nine segments feature prominent physicians explaining the role of nutrition in health and disease. One segment on “Body Weight” features Dr. Paul S. Entmacher, vice president and chief medical director, Metropolitan Life Insurance Company, and Dr. Artemis P. Simopoulos, chairman, NIH Nutrition Coordination Committee (NCC). The series also includes a segment done by a farmer on the production of low-fat meat, and an ethnic program with people of various backgrounds displaying the foods they commonly eat.

Marathon runner Helen Hatton is featured in the demonstration of appropriate recipes for the various nutrition topics explained in the series.

The new version’s theme emphasizes the role of proper nutrition and exercise in maintaining health, which is consistent with HHS Secretary Richard S. Schweiker’s longstanding interest in health promotion.

In fact, Secretary Schweiker is interviewed about his long-term interest in “wellness” by Ms. Hatton in the segment on diet and exercise.

“When I came here some 20 years ago,” the Secretary said, “people thought that prevention was a dirty word; we have tried to get ‘wellness’ out of the closet and get people to the point where they are taking care of themselves and practicing positive programs to prevent disease and illness before it strikes, so that they live longer and feel better. That is what we mean by ‘wellness.’”

To a question about his running schedule, Secretary Schweiker stated, “Well, I try to run at least every other day and I usually run about 3 miles a day. The area between the Capitol and the White House is probably the most scenic jogging path in the world.”

The Secretary feels that Americans can change their lifestyles.

“One once tell them that our research has shown that men and women can live 5 to 10 years longer, and that they can live this period with a fairly good quality of life, I think they will change their lifestyle,” the Secretary pointed out.

“I think programs like ‘Eat Well, Be Well’ are really the foundation, the basis of what we need to do to educate people, to tell them what’s at stake; then, I think, they will change their lifestyles.”

The NIH Nutrition Coordination Committee served as consultant for both videotape series. “Eat Well, Be Well II” is a successful collaboration among industry, government, and the scientific community in promoting public health.

The NCC exhibited the first “Eat Well, Be Well” at the White House Summit on Preventive Medicine, Dec. 22, 1982.

Dr. Goldstein Named NINCDS Director

NIH Director Dr. James B. Wyngaarden has announced the appointment of Dr. Murray Goldstein as Director of the National Institute of Neurological and Communicative Disorders and Stroke, effective Dec. 22, 1982. Further information will appear in the Jan. 18 issue of the NIH Record.
### Training Tips

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

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

### FAES Offers Wellcome Stipends

The Foundation for Advanced Education in the Sciences, Inc., is offering special funds—Wellcome Stipends—to augment the stipends of doctoral level guest workers at NIH. A maximum of $3,000 a year may be granted to each approved individual as an income supplement to a maximum total stipend of $14,000 a year.

The selection committee will consider the scientific merit of the research to be conducted as well as need and professional qualifications of the applicant.

Application forms are available in Bldg. 10, Rm. 2C207A, or by calling 496-7976. All applications must be received in the FAES office by Feb. 28.

### 20 NIH Employees Donate Services to Help 'Straight'

Twenty NIH employees from the CC maintenance section and the NIH power plant gave freely of their time and expert services during the past few months to complete renovations of a new facility for Straight Inc. in Springfield, Va.

Straight Inc. is a nonprofit adolescent treatment program for youths, ages 12 to 21, that are dependent on drugs and/or alcohol.

In a letter of appreciation written to NIH Director Dr. James B. Wyngaarden, Mel J. Riddle, director of the organization, stated: "The National Institutes of Health is fortunate to have so many employees that have a devotion to duty. We were fortunate that 20 of your employees were willing to share their talents with us during their nonworking hours, and some even freely gave of their vacation time."

Volunteers from the CC maintenance section were Kenneth Waddell, Walter Kirk, Neal Land Hunt, Donald Spence, Maimon Levy, Howard Drogin, Mark Morine, Howard Vaught, Paul Hawver, Nathan Adams, Leonard White, Richard Brown, Charles Speis, Peter Sweeney, and Constantinos Lambis.

The NIH Power Plant employees were Ray Mullinix, James Wright, Edward Pittman, Mack McCaskill, and John O'Brien.

The new Straight facility is located at 5515 Backlick Road, Springfield, Va., telephone 642-1980.

### R&W Association Relocates Business Office

The R&W Business Office has been relocated from Rm. 1A17 to B1W30 in Bldg. 31. This move precedes the return of the NIH Federal Credit Union, which will take the former R&W offices.

### STEP Will Hold Two Forums in January

The NIH STEP Committee will present two forums on Waste, Fraud, and Abuse during January.

On Jan. 19, Inspector General Richard P. Kusserow, HHS, will speak about the Department's role in such investigations.

On Jan. 26, representatives from NIH's Division of Management Survey and Review (DMSR) will speak on NIH investigations on waste, fraud, and abuse. The speakers from DMSR will be Richard J. Dugas, assistant director, Diane Dean, management analyst; and John Butler, auditor/investigator.

The two presentations will discuss examples of waste, fraud and abuse in NIH and HHS, and ways to detect and deal with such problems. Both forum series presentations will be held in Bldg. 1, Wilson Hall, from 2 to 4 p.m. The forums are open to all NIH employees and no advance registration or application is necessary.

For further information, call Arlene Bowles at 496-1493.

### Kick the Habit!

A stop smoking program, offered by the Employee Assistance Program, Occupational Medical Service, will begin Wednesday, Jan. 19, in Bldg. 31, Rm. B2585, from noon to 1 p.m.

Morris Schapiro will conduct the 6-week seminar on how to quit smoking gradually.

For further information and registration, call Mr. Schapiro at 496-3164.

An overwhelming response to an appeal for help for two needy Montgomery County families was received in the Division of Extramural Affairs, NHLBI, during the Christmas holidays. Pictured above with a small portion of the clothing, food and toys donated are left to right, Tina Roark, Pat B. Bailey, Carolyn Bowman, Kathleen Maguire and Veronica Montanaro of the Administrative Office, DEA. Each family was also presented a $50 gift certificate to Giant Food.
‘Bring in the Clowns’

Jelly Bean visits the children at the Clinical Center for Christmas.

secretary of the physiology study section, one of approximately 75 study sections within DRG.

Executive secretaries of study sections head panels that evaluate the scientific and technical merit of investigator-initiated research applications, the first level of peer review at NIH. A panel meets three times a year to review as many as 100 applications at each meeting.

The National Advisory Council of an Institute performs the second level of peer review, relying on the scientific judgement of the initial review groups.

Prior to joining NIH, Dr. Frank was assistant professor of physiology at the George Washington University Medical School. He still serves as an associate professorial lecturer at GWU and as a member of the research committee of the American Heart Association, Nation’s Capital Affiliate.

He is a member of a number of professional societies, including the Biophysical Society, American Physiological Society and the Society of General Physiologists. In addition, he is a member of Gaithersburg’s Planning Commission.

Jelly Bean reminds everyone “to nurture the clown within them, allow humor to help them through the day and smile the next time they see a clown.”

Jelly Bean makes a balloon character for Jimmy Hatcher of Kingsport, Tenn.

Disney’s Ice Odyssey Skates in Baltimore, Jan. 16

Tickets for the new edition of Walt Disney’s Great Ice Odyssey, at the Baltimore Civic Center, on Sunday, Jan. 16, are available through R&W.

The 55th anniversary of Mickey and Minnie Mouse is celebrated once by all the favorite Disney characters.

Tickets cost $8.50 (R&W discount price includes service charge), and may be purchased at the Activities Desk, Bldg. 31, Rm. 1A18.

The NIH Record

Page 3
Early Tests of Experimental Drug 5-Azacytadine May Have Promise in Treating Certain Blood Diseases

Scientists in the Clinical Hematology Branch of the National Heart, Lung, and Blood Institute have reported results that may have implications for the treatment of sickle cell anemia and beta-thalassemia (also called Cooley's anemia or Mediterranean fever) using an experimental drug, 5-Azacytadine.

Both of these forms of anemia are considered incurable and the NHLBI scientists emphasize that this approach to treatment is not a cure, but may in the future offer certain, carefully selected patients relief from the disease symptoms.

Sickle cell anemia, a genetic blood disease, affects approximately 50,000 Americans, most of whom are black. Beta-thalassemia, also genetic, affects approximately 1,000 Americans with an ethnic background of middle eastern nations—Italian, Arabian, Greek, and so forth. Both of these blood diseases involve an abnormality in the hemoglobin molecule.

Hemoglobin, the substance that lends blood its red color, carries oxygen to the cells of the body by means of disc-shaped red blood cells.

Hemoglobin itself is made up of pairs of alpha and beta chains. Four of these pairs combine with one iron molecule to form the working hemoglobin unit. Both sickle cell anemia and beta-thalassemia have their origins specifically in the beta chains of the hemoglobin molecule.

In sickle cell anemia, the beta chain of hemoglobin distorts and pulls the red blood cell into the characteristic sickle shape. These crescent-shaped cells do not circulate readily through the tiny capillary blood vessels and become clogged in smaller channels. The patient then experiences a painful “sickle cell crisis” brought about through the lack of oxygen in the cells. These crises can cause severe abdominal pain and vomiting, back and joint pain and certain neurological disturbances such as cranial nerve palsies.

Infections are common, especially among young children with sickle cell anemia, and are sometimes fatal. Adult patients show a steady decrease in the functions of the kidneys and lungs.

Persons who have sickle cell anemia frequently have shortened lifespans brought about by infections, blood clots in the lungs or in the vessels that feed other vital organs or kidney failure.

Beta-thalassemia is a condition in which too many alpha chains are manufactured by the body. Some alpha chains cannot find beta chains with which to pair, so they accumulate in the red blood cells and shorten their lifespan.

The condition is worsened by the patient's need for frequent blood transfusions to maintain adequate levels of red blood cells. Iron from the transfused blood accumulates in certain of the body tissues such as the spleen, liver and heart and eventually can cause death.

Scientists have theorized that if the type of hemoglobin present in the fetus could be reactivated in adult sickle cell and thalassemia patients, symptoms of those diseases could be abated.

Animal studies conducted by Drs. Joseph DeSimone and Paul Heller at the University of Illinois showed that fetal hemoglobin could be reactivated.

Dr. Timothy Ley and Arthur Nienhuis, chief of the Clinical Hematology Branch, have reactivated the fetal hemoglobin gene in two patients with sickle cell anemia and three with thalassemia.

The drug 5-Azacytadine was installed slowly into each patient by intravenous drip, over several days. Subsequent laboratory tests showed that the gamma hemoglobin chain was indeed present in these patients, who “experienced significant physiologic improvement,” the investigators said.

Sickled cells disappeared from the blood of two patients with sickle cell anemia, and the thalassemia patients experienced partial correction of their anemia. The improvement lasted for a period of weeks.

Scientists emphasize that 5-Azacytadine is an experimental drug, and that no long-term followup is available on the patients who have been treated. Evidence brought out by this study indicates that the drug does not bring about permanent change, but would need to be applied at intervals throughout the patient's life.

Studies as to the safety of 5-Azacytadine administered periodically over a long time have not been carried out. These results, the scientists say, must be considered preliminary. Much is yet to be done both on the drug and on mechanisms of gene reactivation.

NIH Golf Association Awards Prizes at Recent Banquet

The Ball Hawks and the Sod Busters were presented with team championship trophies at the NIH Golf Association’s 17th annual awards banquet held recently at the Washingtonian Country Club in Gaithersburg.

For the first time in the association’s history, three teams tied for both the stroke-play and the match-play titles. In the playoffs, however, the Sod Busters won a narrow, 1-stroke victory over the Ball Hawks to take the title.

NIH Golf Association Awards Prizes at Recent Banquet

The Ball Hawks, on the other hand, swept to an impressive match-play victory by winning 8 of their head-to-head matches, and tying the other 4.

Individual awards presented at the banquet went to Tom Harrison and Craig Reynolds.

Dr. Underwood Joins NEI

Dr. Barbara Underwood, an internationally recognized expert on nutrition, has been named special assistant to the director for nutrition research, National Eye Institute. Her work will concern research in nutritional blindness, the major cause of childhood blindness in developing countries.

Dr. Underwood, who had been associate professor of nutrition at Massachusetts Institute of Technology, will be the scientific liaison for all institute nutrition research and will also serve as project officer for the Nutritional Blindness Clinical Research Center in Hyderabad, India.

In addition, she will coordinate Institute programs in nutrition and serve as NEI representative to the NIH Nutrition Coordinating Committee. Her own research on the relationship between vitamin A and nutrition as it relates to blindness and severe visual impairment will be conducted both at NIH and at the Hyderabad center.

Nutrition Consultant

A native of Santa Ana, Calif., Dr. Underwood was a teacher and researcher at the University of Maryland School of Medicine, Columbia University, and Pennsylvania State University before joining MIT in 1977. She has also had extensive experience as a consultant on nutrition in Southeast Asia.

She received her Ph.D. in nutritional biochemistry from Columbia University in 1962. Since then she has published over 50 articles on nutrition, vitamin A deficiency diseases, and the planning and consequences of international efforts for nutritional interventions.

Success is to be measured not so much by the position that one has reached in life as the obstacles which he or she has overcome while trying to succeed.—Booker T. Washington
Visiting Scientist Program Participants

5/9 Dr. Vilas R. Shrivast, India, Laboratory of Chemical Pharmacology. Sponsor: Dr. Gopal Krishna, NHLBI, Bldg. 10, Rm. 8N107.
5/10 Dr. Daniel Thomas, France, Laboratory of Physical Biology. Sponsor: Dr. Alasdair Steven, NIAID, Bldg. 6, Rm. 3N07.
5/12 Dr. Jacques Proust, France, Clinical Physiology Branch. Sponsor: Dr. W. H. Adler, NIA, Gerontology Research Center, Baltimore, Md.
5/14 Dr. Alessandra d’Azzo, Italy, Genetics and Biochemistry Branch. Sponsor: Dr. Elizabeth Neu- tedt, NIADDK, Bldg. 10, Rm. 9N238.
5/14 Dr. Yukio Muratsuka, Japan, Laboratory of Environmental Biophysics. Sponsor: Dr. Teruiz Koyanishi, NIEHS, RTP, NC.
5/14 Dr. Michael Schramm, Israel, Diabetes Branch. Sponsor: Dr. Jesse Roth, NIADDK, Bldg. 10, Rm. 8S243.
5/14 Dr. Leslie Schrieber, United Kingdom, Arthritis and Rheumatism Branch. Sponsor: Dr. Paul Plotz, NIA, Bldg. 10, Rm. 9N210.
5/16 Dr. Bernd Krippi, Austria, Laboratory of Molecular Genetics. Sponsor: Dr. Heinrich Westphal, NIADDK, Bldg. 9C, Rm. 6S210.
5/16 Dr. Hiroshi Mitsu, Japan, Metabolism Branch. Sponsor: Dr. Samuel Broder, NCI, Bldg. 10, Rm. 4N309.
5/16 Dr. Masato Noguchi, Japan, Digestive Diseases Branch. Sponsor: Dr. Jerry Gardner, NIADDK, Bldg. 10, Rm. 9D15.
5/18 Dr. Toru Sato, Japan, Immunopharmacology Section. Sponsor: Dr. Michael Chirigos, NCI, FCRF, Bldg. 560, Rm. 31-76.
5/18 Dr. Javaharal Srinivasappa, India, Laboratory of Oral Medicine. Sponsor: Dr. Takashi Onodera, NIDR, Bldg. 30, Rm. 230.
5/18 Dr. James Lear, United Kingdom, Child and Family Research Branch. Sponsor: Dr. Frank Pederson, NCI, Bldg. 9C, Rm. 8N107.
5/18 Dr. Hisao Fujisaki, Japan, Laboratory of Cell Biology. Sponsor: Dr. Edward Korn, NHLBI, Bldg. 10, Rm. 8B15.
5/18 Dr. Nigel Greig, United Kingdom, Laboratory of Neurosciences. Sponsor: Dr. Stanley Rapoport, GRC, Baltimore, Md.
5/18 Dr. Takashi Shiono, Japan, Laboratory of Virology-Research Section. Sponsor: Dr. Jin Kinoshita, NCI, Bldg. 1, Rm. 6A04.
5/18 Dr. Lu Zhongding, China, Endocrinology Section. Sponsor: Dr. Robert Gregerman, GRC, Baltimore, Md.
5/18 Dr. Carlo Gabelli, Italy, Molecular Disease Branch. Sponsor: Dr. H. Bryan Brewer, NHLBI, Bldg. 10, Rm. 8N117.
5/18 Dr. Carolina M. Parisi, Italy, Protein Chemistry Section. Sponsor: Dr. O. Wesley McBride, NCI, Bldg. 37, Rm. 4C17.
5/18 Dr. Abraham Yaniv, Israel, Laboratory of Cellular and Molecular Biology. Sponsor: Dr. Stuart Aaronson, NCI, Bldg. 37, Rm. 1A07.
5/18 Dr. Pravendra Neth, India, Laboratory of Molecular and Developmental Biology. Sponsor: Dr. Peggy Zelinka, NIAID, Bldg. 10, Rm. 12N22.
5/18 Dr. Javier A. Rubio, Peru, Laboratory of Neuro-Otology-Rectology. Sponsor: Dr. Jorgen Fex, NINCDS, Bldg. 36, Rm. 5D32.
5/18 Dr. Aram Gavish, Israel, Laboratory of Cellular and Molecular Biology. Sponsor: Dr. Stuart Aaronson, NCI, Bldg. 37, Rm. 1A07.
5/20 Dr. Angela ges, England, Infectious Disease Section. Sponsor: Dr. Philip Pizzo, NCI, Bldg. 10, Rm. 8B50.
5/21 Dr. Kazimierz Wasniewski, Poland, Laboratory of Pathology. Sponsor: Dr. Cheryl Reichen, NCI, Bldg. 10, Rm. 4N309.
5/21 Dr. Paolo Luccetti, Italy, Laboratory of Biochemical Pharmacology. Sponsor: Dr. Leonard Kohn, NIADDK, Bldg. 4, Rm. B1-51.
5/21 Dr. Georgio Inghirami, Italy, Laboratory of Tumor Immunology and Biology. Sponsor: Dr. David Colcher, NCI, DCSD, Bldg. 37, Rm. 1A07.

University of Maryland—Eastern Shore Designated as NICHID Repository

The National Institute of Child Health and Human Development has donated to the University of Maryland-Eastern Shore (UMES) reports resulting from $1.5 billion of research supported by the Institute since 1963. The university will be a continuing repository for NICHID scientific reports.

This collaboration marks the first time an Institute of the National Institute of Health has designated a university as an ongoing repository for a collection of publications of scientific findings.

The collection, acquired in the Institute's first 20 years of operation, contains the work of five Nobel laureates and other recipients of numerous awards and honors acknowledging their research as among the most eminent in their respective fields. It contains information on pregnancy, birth defects, nutrition, fertility and infertility, genetics, learning disabilities, basic reproductive biology, social and behavioral sciences, genetic engineering, mental retardation and other topics.

Founded in 1836 and located in Princess Anne, Md., UMES is an historically black institution with an enrollment of 1,200.

"We are proud of the leadership that NIH has in funding high-quality programs that lead to the full participation of all sectors of our society in research," said NIH Deputy Director Dr. Thomas E. Malone. "He said he hoped other institutions would follow the NICHID example by pursuing this and similar activities.

UMES offers bachelor degrees in biology, human development, and environmental sciences.

The acquisition of the collection will add thousands of scientific journal articles to the campus library and will strengthen the university's capability to conduct research and motivate and prepare students for advanced studies.

10/25 Dr. Michiyoshi Taga, Japan, Laboratory of Biochemistry & Metabolism. Sponsor: Dr. Takami Oka, NIAID, Bldg. 10, Rm. 9B17.
10/25 Dr. Beatrice Dozin, Belgium, Clinical Endocrinology Branch. Sponsor: Dr. Vera Nikodem, NIAID, Bldg. 10, Rm. 9B232.
10/31 Dr. Mikulas Popovic, Czechoslovakia, Laboratory of Tumor Cell Biology. Sponsor: Dr. Robert Gallo, NCI, Bldg. 37, Rm. 6A09.
11/1 Dr. Kim Elaine Barrett, United Kingdom, Laboratory of Clinical Investigation. Sponsor: Dr. Dean C. McAlister, NIAID, Bldg. 10, Rm. 11N22.
11/1 Dr. Prakash Kanti Das, India, Developmental and Metabolic Neurology Branch. Sponsor: Dr. John Barranger, NINCDS, Bldg. 10, Rm. 4N248.
11/1 Dr. Chantal Escot-Thuillet, France, Laboratory of Cellular and Molecular Biology. Sponsor: Dr. Robert Callahan, NCI, Bldg. 37, Rm. 1A07.
11/1 Dr. Pilar Fernandez, Spain, Laboratory of Cellular and Molecular Biology. Sponsor: Dr. Robert Callahan, NCI, Bldg. 37, Rm. 1A07.
11/1 Dr. John Alan Green, United Kingdom, Medicine Branch. Sponsor: Dr. Robert C. Young, NCI, Bldg. 10, Rm. 2850.
11/1 Dr. Go Hoong-guang, China, Laboratory of Tumor Cell Biology. Sponsor: Dr. Robert Gallo, NCI, Bldg. 37, Rm. 6B04.
11/1 Dr. Kouji Matsushita, Japan, Laboratory of Microbiology and Immunology. Sponsor: Dr. Joost Oppenheim, NIDR, Bldg. 30, Rm. 322.

Judith A. Mahaffey, a computer systems analyst with the Data Management Branch, DCRT, recently received an NIH Merit Award for excellence in the design and development of computer data management systems to support biomedical and administrative programs at NIH. The award was presented by J. Emmett Ward (L), DMB chief, and Dr. Arnold W. Pratt, Division Director. One of Mrs. Mahaffey's recent accomplishments was the development of an auditing system for the Clinical Center's Medical Records Department.
Five NIH, Two NIMH Senior Executives Receive 1982 Presidential Awards

Five NIH and two NIMH members of the Senior Executive Service were recently honored as recipients of the 1982 Presidential Rank Awards for the Civil Service System. All were selected on the basis of exceptional performance during the year.

Presidential Rank Award recipients included 38 Distinguished Senior Executives and 161 Meritorious Senior Executives.

Members of the NIH and NIMH SES staff named Meritorious Senior Executives were: Dr. David R. Davies, chief, section on molecular structure, Laboratory of Molecular Biology, NAIADD; and Dr. Frederick K. Goodwin, director, Mental Health Intramural Research Program, NIMH.

Also, Dr. Max Gottman, chief, biochemical genetics section, Laboratory of Molecular Biology, NCI; Dr. Mortimer B. Lipsett, director, NICHD (formerly Clinical Center Director); Dr. Marie U. Nylen, director, Intramural Research Program, NIDR; and Dr. William F. Raub, NIH Associate Director for Extramural Research and Training.

The President honored recipients for their "contributions to this Nation from doing medical research, to adopting management practices that save the taxpayer's money, to helping get the space program off the ground."

Dr. Louis Sokoloff, chief, Laboratory of Cerebral Metabolism, NIMH, was honored as a Distinguished Senior Executive. Dr. Sokoloff is internationally known for his contributions to neuroscience, especially for developing a method enabling scientists to visualize the simultaneous biochemical activity of an entire network of neural pathways in the brain and central nervous system.

The Director of the Office of Personnel Management, Donald J. Devine, praised the award winners for "exemplifying the very highest standards of public service, dedication to the public interest and sound, effective management at the highest levels of the Federal Government's career service."

Fun Foods Campaign Aimed at Young Cancer Patients

Frozen, fruit popsicles made with yogurt are part of a "fun foods" campaign organized for the pediatric patients on 6W in the Clinical Center. Developed by the CC nutrition staff and the National Cancer Institute's pediatric oncology nursing staff, the campaign aims to introduce simple, nutritious foods to young cancer patients.

"We wanted to shift the emphasis from junk foods to good foods," said Denise Ford, a clinical dietitian in the CC, but we also wanted to make nutrition fun. The frozen yogurt seems to fill the bill perfectly.

"For many of the children, we had to work to get them to taste the fruit and yogurt mixtures," said Ms. Ford. "But thanks to some dedicated, and at times rather ingenious, efforts by the nutrition staff, we were successful in our efforts. Now some of the children stop the staff members and ask for the treats."

These methods have included everything from recipes that use fruits like pineapples and peaches to visits by nutrition staff members acting as street vendors, peddling the yogurt treats from one room to the next. A recent innovation has been the use of package yogurt bars in strawberry, raspberry, and chocolate flavors.

By combining the fun food approach with general nutrition education, the 6W staff members hope to teach their patients ways to maintain good nutrition, whether in the hospital or at home.

For cancer patients, especially those receiving chemotherapy, maintaining good and adequate eating habits can aid in the control of their disease. Undernutrition may lead to weight loss and cachexia (the deterioration of vital tissues), conditions that may make the patient less able to tolerate chemotherapy and may also make treatment less effective.

Chemotherapy also makes demands of patients that can be countered by good nutrition. It may affect the way the body absorbs many essential vitamins, minerals, and fats.

Patients on chemotherapy are often less able to tolerate high fat foods, which, in turn, can affect the amount of protein they eat.

High protein foods, such as meat, cheese, and milk, tend to have a high fat content, and thus are often intolerable to chemotherapy patients.

The nutritional value of yogurt is similar to milk. Low in fat, it is an easily digestible way to get protein as well as vitamins and minerals such as vitamin B (riboflavin) and calcium.

Yogurt is made by adding the bacterium, called lactobacillus, to milk. This bacterium ferments the milk, a process which changes lactose (the sugar present in milk) to lactic acid, thus creating the familiar custard-like product.

Two New Programs Established for NINCDS Extramural Research

The National Institute of Neurological and Communicative Disorders and Stroke recently established two new programs to plan and direct the Institute's extramural research on neurological disorders.

The Convulsive, Developmental, and Neuromuscular Disorders Program and the Demyelinating, Atrophic, and Dementia Disorders Program have been assigned overall responsibility for research awards activities in their respective areas of interest. These activities had been carried out previously by the NINCDS Neurological Disorders Program, which has been absorbed into the new units.

Dr. Floyd J. Birnley, Jr., former Neurological Disorders Program director, has been named director of the CDNP. Dr. Carl Lenenthal has been named acting director of the DADDP.

According to Dr. Murray Goldstein, NINCDS Director, the organizational change divides one large program into two programs of more manageable size. "Administratively," he said, "the change is expected to increase efficiency."

"It will also permit the directors of each program to focus more aggressively on the Institute's congressional mandate to determine the national need for research in the cause, diagnosis, treatment, and prevention of specific neurological disorders."

Both program directors will collaborate with other NINCDS administrators in assessing national needs in neurological research, and the bedside application of research findings and new methodologies.

"EAT WELL" (Continued from Page 1)


Outlining the course of the Secretary's usual run between the U.S. Capitol and the White House are Larry S. Hatton, Mr. Nowak, Secretary Schweiker, Dr. Simopoulos, and Russell R. Mack, News Division, HHS.

This exhibit, produced and staffed by representatives from the Metropolitan Life Insurance Company, was visited by approximately 1,500 participants at the congress from around the world.

Requests for copies of the series came from England, Australia, Canada, Africa, Mexico, and other countries. Representatives from industry, universities, and the media previewed and expressed an interest in the series.
The NIH Record

January 4, 1983

Three National Institute of Child Health and Human Development employees recently received Equal Employment Opportunity Special Achievement Awards for their commitment to the principles of EEO. Standing with NICHD Director Dr. Mortimer B. Lipsett, who presented the awards, are (l to r) Joyce A. Pilcher, Margaret R. Garner, and Nancy F. Gist.

3-D Picture of Penicillin Shows Molecular Binding Structure

The first molecular-level picture of penicillin binding to its bacterial enzyme receptor was published recently in *Science* magazine.

Developed by scientists at the University of Connecticut at Storrs, this three-dimensional picture could be invaluable to chemists wishing to make new penicillins or completely new families of antibiotics.

Penicillin works as an antibiotic by inhibiting the enzyme that helps the growing bacterium form a cell wall. The large bacterial enzyme mistakes the much smaller penicillin molecule for a precursor it needs to make a rigid cell wall network. Hence, the infecting bacterium subsequently deforms and dies.

The Connecticut investigators, supported in part by a National Institute of Allergy and Infectious Diseases grant, used a technique call X-ray diffraction analysis to construct the picture that revealed the three-dimensional shape of the large enzyme molecule.

The analysis also showed them exactly where on the enzyme the penicillin molecule binds when it stops the normal functioning of the enzyme.

Together, the penicillins and the cephalosporins form the large beta-lactam family of antibiotics, the members of which now number almost a hundred. All beta-lactams have in common a distinctive chemical framework, and all have the ability to inhibit, to varying degrees, the machinery that synthesizes bacterial cell walls.

Though many penicillins and cephalosporins are on the market, synthesis of new ones must continue for several reasons.

1) Existing beta-lactams may be ineffective against certain strains of bacteria that are able to shield the enzyme targets from the antibiotic.

2) Most beta-lactams can be destroyed by another bacterial enzyme, penicillinase or beta-lactamase, before they reach the target enzyme. (It is the penicillinase enzyme that makes a strain of gonorrhea resistant to penicillin therapy.)

3) Beta-lactams that succeed in reaching the target enzyme may bind to it only weakly, so that therapy must sometimes continue for long time periods or be given in large doses.

4) A bacterium originally susceptible to beta-lactams might mutate to one of the types listed above.

The study was reported by Drs. Judith A. Kelly, Paul C. Moews, and James R. Knox, University of Connecticut; and professors Jean-Marie Freer and Jean-Marie Ghysens, University of Liege, Belgium.

A closeup of the "ribbon-cutting action" on Nov. 15 at the formal dedication on the new facilities at the National Institute of Environmental Health Sciences in Research Triangle Park, N.C. From l to r are: North Carolina Governor James B. Hunt; Congressman L. H. Fountain; NIH Director Dr. James B. Wyngaarden; and NIEHS Director Dr. David P. Rall.
PHS Invites Small Businesses To Participate in Conference

The Public Health Service is inviting small business R&D firms to participate in a conference to be held Feb. 7-8 to discuss agency implementation of the Small Business Innovative Research Program (SBIR).

Created by an amendment to the Small Business Act (P.L. 97-219), the new program will give small businesses the opportunity to discuss R&D needs with PHS program staff.

For purposes of the SBIR program, "a small business" is any independently owned, for-profit organization that is not dominant in its field, and meets the size standard of 500 employees or less.

The program is intended to stimulate technological innovation, use small business to meet Federal research and development needs, increase private sector commercial action of innovation derived from Federal research and development, and foster and encourage participation of minority and disadvantaged persons in technological innovation.

PHS components participating in the SBIR program include NIH, ADAMHA, CDC, FDA, the National Center for Health Services Research and the Office of Adolescent Health Programs. NIH accounts for approximately 94 percent of the SBIR set-aside funds in PHS.

The program will consist of three phases:
- Establishment of the technical merit and feasibility of R&D ideas which may ultimately lead to commercial products or services in the health area;
- In-depth development of proposed R&D ideas that are likely to result in commercial products or services, with special consideration given to proposals demonstrating prospective private capital commitments for commercial applications;
- The involvement of private capital for commercializing the results of R&D funded by a Federal agency, or the involvement of non-SBIR funded contracts with a Federal agency for products or processes intended for use by the U.S. Government.

Anyone interested in receiving a copy of the program solicitation of a given PHS agency, or attending the conference, may contact the Office of Grants Inquiries, Division of Research Grants, Westwood Bldg., Rm 448, Bethesda, Md. 20205, or call (301) 496-7441.

Congressional Aides Rank NIH #1

Dr. John Grupenhoff, a private consultant with Grupenhoff and Endicott (Dr. Kenneth Endicott was former head of the National Cancer Institute), presented results of a survey of congressional legislative aides to determine their attitudes towards Federal health agencies.

One notable finding was that NIH in particular. Aides were asked to rank health agencies as to their cooperation, response, briefings, etc. NIH was ranked number 1 by all the aides. Food and Drug Administration, number 2, and Centers for Disease Control, number 3.

According to Dr. Grupenhoff, when asked to explain why NIH was ranked first, aides basically responded, "NIH has always had this image of being the best."

The findings were presented to Dr. Grupenhoff to Office of Program Planning and Evaluation staff and all NIH legislative contacts on Dec. 13 in Wilson Hall.

Dr. Martin Luther King, Jr. Commemoration Will Be Jan. 12

On Wednesday, Jan. 12, NIH will commemorate the birth, life, and legacy of Dr. Martin Luther King, Jr. Sponsored by the NIH Black Cultural Committee, a special program for employees will be held in the Clinical Center Masur Auditorium from noon to 1:30 p.m.

Dr. Samuel D. Proctor, professor of education, Rutgers University Graduate School of Education in New Jersey, will keynote the event.

Dr. Proctor is the senior minister of the Abyssinian Baptist Church in New York City.

Dr. Proctor has served as past president of Virginia Union College and North Carolina A&T State University; has been a member of the governing boards of the United Negro Fund, Meharry Medical College, and the Overseas Development Council; and was a member of the NIH Advisory Committee on Recombinant DNA Research.

The Chevy Chase Presbyterian Church Handbell Choir, under the direction of Kenneth Lowenberg, will perform several musical selections.

For more information, contact Levon Parker, 496-5332.

Toxicologist Selected for 'Who's Who'

Dr. Sayeed Quaraishi, chief of the pest control and consultation section, DAS, has been included in the 1982 edition of Marquis Who's Who in the World.

An internationally known entomology toxicologist, he has published over 50 papers in the field and a book entitled Biochemical Insect Control: Its Impact on Economy, Environment and Natural Selection.

Diet Workshop To Have Open House

The Diet Workshop will have an open house Tuesday, Jan. 11, at 11:30 a.m. in Bldg. 31, Rm. 11A10. Workshop program instructor Jan Mintz will explain the diet and those attending will receive a free diet kit.

Dieting facts and myths will be discussed to help dieters reach their goals. Visitors are welcome.

For more information, call 587-DIET.
Dr. Earl C. Chamberlayne

Dr. Earl C. Chamberlayne, 66, chief of the Conferences and Seminars Program Branch, FIC, died Dec. 3, of injuries received in an automobile accident.

Dr. Chamberlayne came to NIH in 1964 as a science administrator for NIAID, where he was active in biomedical research administration, microbiological hazards consultation, and research and development in scientific communications. In 1976, he joined the staff of the Fogarty International Center as special assistant to the director.

He had a lifelong interest in, and dedication to, the promotion of health on an international level. Prior to employment with the USPHS, he was a public health consultant for the Pan American Sanitary Bureau, Regional Office of the World Health Organization.

He represented PAHO/WHO at many scientific conferences and planning meetings, and served on numerous WHO Expert Committees.

Born in White Rock, British Columbia, Dr. Chamberlayne was educated in Canada, receiving his D.V.M. and D.V.P.H. from the University of Toronto. His early work experience was as a veterinary officer, with a particular interest in animal disease control and food hygiene.

He was an honorary life member of the Canadian Institute of Food Science and Technology. He was also an honorary member of the Veterinary Medical Society of Sao Paulo State, Brazil, and of Peru, as well as of the Peruvian and Venezuelan Public Health Societies.

In 1972, he received the HEW Quality Performance Award; and in 1975, the HEW Superior Service Award.

The people with whom he worked remember him as remarkably honest, cheerful, and courteous. He had a delightful sense of humor, and the self-assurance and experience necessary for outstanding leadership.

Survivors include his wife, Marion, and four children.

Memorial contributions may be made to the Patient Emergency Fund (Social Work Dept., Clinical Center, Bldg. 10, Rm. 1C144, NIH, Bethesda, MD 20205).

NIADDK To Conduct Benign Prostate Seminar

The NIADDK Division of Kidney, Urologic and Hematologic Diseases will present a seminar on Benign Prostatic Hyperplasia: Etiology and Treatment, Tuesday, Jan. 11, in Bldg. 31, Conf. Rm. 10, at 1:30 p.m.

The seminar will feature NIADDK grantee Dr. Donald S. Coffey and Patrick C. Walsh of the James Buchanan Brady Urological Institute at the Johns Hopkins University Hospital.

Dr. Coffey, a professor in oncology, pharmacology, and urology, is studying the dynamics of endocrinical and biochemical events of benign prostatic hyperplasia.

Dr. Walsh, director of the department of urology, Johns Hopkins University Hospital, is doing research into the regulation of cytosol and nuclear steroid receptor content of normal and BPH tissues in the canine and human.

According to a recent study, 80 percent of men over 40 develop benign prostatic hyperplasia—10 percent require surgery to correct the defect. Dr. Walsh has developed a new surgical technique for prostatectomy. This new surgical approach has resulted in better post-surgical sexual functioning than the more classical surgical procedures.

Additional information on the seminar is available from Dr. Charles Rogers, urology program director, 496-7574.

Avery Retires From NCI's Public Inquiries Section

Robert J. Avery, Jr., chief of the Public Inquiries Section, National Cancer Institute, retired Nov. 30 after 26 years of Federal service.

At NCI since 1963, he headed a public response activity that grew from answering 100 inquiries per month to more than 22,000 per month in 1982.

The largest volume came in April 1976 when Mr. Avery suddenly was confronted with 33,000 letters and more than 5,000 telephone calls generated by a magazine article.

Nearly all of those inquiries were from cancer patients or their family members. They urgently asked for practical information on how to find the best in cancer care. Most asked for a fast reply.

Despite the tremendous workload, under Mr. Avery's supervision all inquiries ultimately were answered within 7 days of receipt.

Although he is putting the strain of such responsibilities behind him in retirement, he intends to continue writing. Before entering government service he wrote five novels.

In the days ahead he will work on a sixth, between trips from his home in Maryland to his house on the Mediterranean coast of Spain.

Dr. Yu Becomes FIC Scholar

Dr. Li-Yun Yu, a resident assistant in the department of neurology, Hua Shan Hospital, Shanghai First Medical College, began an international neuroscience fellowship on Dec. 6.

Under the preceptorship of Dr. Roger Porter in the Epilepsy Branch, the fellowship is sponsored by NINCDS in cooperation with WHO and FIC.

Dr. Yu's research project is Epilepsy and Clinical Pharmacology. Her husband, Dr. Zhi-ping Yu, was an international neuroscience fellow at NIH in 1981-82 and has since returned to China.

Dr. Thomas M. Tarpley was recently inducted as a fellow of the International College of Dentists. He serves as executive secretary, oral biology and medicine study section, Scientific Review Branch, DRG, and was one of 200 U.S. dentists initiated into the organization.

Vienna Choir Boys Perform At Kennedy Center, Jan. 16

R&W has tickets for the Vienna Choir Boys at the Kennedy Center Concert Hall, Sunday, Jan. 16, at 2 p.m.

The Vienna Choir Boys will present a program of costumed operettas, sacred songs, and secular and folk music for the entire family

Orchestra seats are $11.75 (R&W discount price including service charge) and may be purchased at the Activities Desk, Bldg. 31, Rm. 1A18.

The NIH R&W Association and the NIH Tennis Club recently sponsored a fund-raising marathon tennis party at the Linden Hill Hotel. The profit from the party was shared by the Tennis Club and the Patient Emergency Fund. Winning members of the fund-raising tennis party were I to l: Millie Stockman, director; Mike Richardson; Charlie Richardson; Cliff Schein; Dr. M. Edvardo Bravo; and Ruth Rodgers.
NIH Library Translator, Paul DePorte, Retires

Paul V. DePorte retired Nov. 30 from the NIH Library, Division of Research Services, ending 40 years of Federal civil service as a translator.

Mr. DePorte spent 37 years as a scientific translator, mostly at the NIH campus—the first 8 years with the PHS Division of Chronic Disease and Tuberculosis Control.

Throughout much of World War II, he served as a translator for the U.S. Office of Censorship, dealing with international mail and cables at posts in Miami and New York City.

Mr. DePorte's career as a translator has enabled him to combine two lifelong interests: science and languages.

At the same time, he was studying languages on his own as well as taking courses in certain ones—a practice he continued after becoming a professional translator.

"The most fortunate choice of a language course I ever made was an Italian class I took at Rutgers University in the early forties," Mr. DePorte said. "I fell in love with the beautiful young lady who was teaching the course as a practice teacher. We were married in 1945. My wife Helen still teaches Italian and Spanish in the Montgomery County adult education program.

"Then during the war I was at the Radnor Arsenal in New Jersey when I learned about an opportunity for war work that was almost too good to be true; it was translating, and it was in Miami!"

He got the Miami job with the Postal Branch of the Office of Censorship, but was later transferred to the New York cable office, located near Wall Street. "In New York I read other people's cables every day from 5 p.m. to 1 a.m.," he said.

Eager to return to scientific translating at the end of the war, Mr. DePorte transferred to the PHS Division of Chronic Disease and Tuberculosis Control, located at NIH.

The division was abolished in 1953. Mr. DePorte joined the translation unit of the NIH Scientific Reports Branch. "I shared an office with medical writer Bill Carrigan in the Wilson House. Bill is still with NIH, in the Office of Program Planning and Evaluation," he said.

The translation unit became a part of the Division of Research Services when DRS was formed in 1956. Since 1960 it has been part of the DRS Library Branch.

Mr. DePorte says his retirement plans include freelance translating, frequent participation in activities of the Smithsonian resident associates and the National Geographic Society, and seeing more of his family.

New Cancer Survival Statistics Are Now Available

New statistics on the improved survival experience of cancer patients are now available from the National Cancer Institute for patients diagnosed with cancer between 1973 and 1979.

Survival rates for a different population of patients diagnosed in the periods 1960-1963 and 1970-1973, though not strictly comparable because they arise from different sets of cancer registries, provide data on patients diagnosed prior to 1973.

The new statistics were compiled by NCI's Surveillance, Epidemiology, and End Results (SEER) Program. Since 1973, SEER registries have annually collected information on the occurrence of cancer and the survival experience of patients from a population-based sample of approximately 10 percent of the U.S. population.

In an earlier NCI analysis, rates by cancer site were obtained for patients diagnosed between 1970 and 1973, and were compared with rates for patients diagnosed between 1960 and 1963. Although the SEER rates cannot be compared exactly with those from earlier years, they do indicate that survival is improved for a number of major cancer sites. For other cancers, the new rates are similar to those previously reported.

A summary of these statistics may be obtained from the Office of Cancer Communications, 496-6641.

Biomedical Science Lecture

The NIH Library, Division of Research Services, will present a series of lectures on current topics in biomedical sciences in 1983 for medical librarians and other professionals.

The first lecture, Genetics of Human Cancer, will be given by Dr. John J. Mullighan, chief, clinical genetics section, Clinical Epidemiology Branch, National Cancer Institute at 2 p.m., Jan. 19, in Rm. 10C103, ACRF, Bldg. 10.

Call Kathie Vanash, 496-1156, or Sarah Log, 496-2398 to make arrangements to attend.

Chemoprevention Program Developed by NCI

The National Cancer Institute has developed a new program, the Chemoprevention Program, to coordinate research exploring the use of natural and synthetic agents in reducing the incidence of cancer.

The goals of the program include finding ways to halt or reverse the development of cancer in people already exposed to cancer-causing agents (carcinogens) or potential carcinogens. This strategy may be particularly beneficial to those people at very high risk for cancer as well as those with certain precancerous conditions that might increase their risk of developing cancer.

The new program was started in response to mounting laboratory and epidemiological studies indicating that various agents could halt or reverse cancer progression in animals or reduce the incidence or risk of cancer in humans.

This new research area is based on the recognition of doseresponse groups that met between 1979 and 1981 to investigate the feasibility of a research effort in clinical and experimental chemoprevention.

Many scientists believe that cancer apparently develops in cells as a result of a progression of changes that occur over many years. Many factors, such as exposure to X-rays, sunlight, tobacco smoke, and chemicals, may influence this process. Numerous points may therefore exist at which the process could be interrupted for preventive effects.

Carconogens such as X-rays and sunlight are associated with free radical reactions capable of altering the cell's DNA.

These chemical changes in the DNA alter the cell's normal life and may be related to cancer development. Normal metabolic processes of the digestive tract can convert noncarcinogenic substances into active forms.

Specifically, ingested nitrates can combine in the stomach with amines to form nitrosamines or with amides to form nitrosoamides. Nitrosamines are carcinogens and nitrosamines usually require metabolic activation to become carcinogenic.

Agents such as beta-carotene, vitamins A, C, and E, and the trace element selenium may prevent, inhibit, or reverse carcinogenesis—possibly by blocking free radical reactions at the cellular level or the formation of nitrosamines in the stomach. The program will also include studies of chemopreventive agents in persons at high risk for certain types of cancer, and the development of synthetic compounds for these clinical studies.

The group of potential chemopreventive agents currently being studied includes the naturally occurring substances: vitamins A, C, E, beta-carotene, and selenium. Synthetic retinoids are also being investigated.

A summary of these studies and clinical trials is available from the Office of Cancer Communications, 496-6641.
Protection Greater Than Shown

The recently licensed hepatitis B virus (HBV) vaccine (Heptavax-B—Merck) offers broader protection against HBV infection than previously shown, according to a report in the Dec. 6, 1982, New England Journal of Medicine.

In this study, conducted in 43 hemodialysis units throughout the U.S., the vaccine safely and effectively protected the medical staff against infection with a subtype of the virus not included in the vaccine.

HBV vaccine was licensed in November 1981 and released in June 1982 to protect individuals at high risk of HBV infection. It is prepared from plasma donated by HBV carriers. Most of those are infected with the ad subtype, the one that most commonly causes hepatitis in the U.S.

However, in hemodialysis units, most infections are caused by a different subtype (ay). Workers in these units are at high risk of developing hepatitis because of frequent contact with blood and blood-products and because of the prevalence of hepatitis infections in dialysis patients.

In this trial among 865 medical staff members, HBV vaccine was compared with a placebo in a double-blind study; that is, neither investigators nor participants knew which substance was being administered.

Protective antibody to HBV developed in 92.6 percent of the vaccine recipients after two doses and in 96 percent after a 6-month booster of vaccine. These response rates were virtually the same as those in a previous trial in homosexual men.

In the current study, HBV infection (with or without disease) occurred in 9.9 percent of the placebo recipients and 2.2 percent of the vaccine recipients. The two cases of hepatitis in vaccine recipients occurred in those who did not develop antibody after immunization was complete.

The study confirmed that the vaccine protects against infection acquired primarily through the parenteral route, such as by accidental needlestick. (Earlier trials have been done in populations with a high rate of sexual transmission.)

Moreover, efficacy was proven using 20 μg (0.5 cc) doses of vaccine—half the dose used in a previous trial in homosexual men and the dose now approved for healthy adults.

The cross-protection provided by HBV vaccine is probably due to an immune response to the common antigens determined by all hepatitis B viruses. The ad subtype cross-protection is very practical implications. The study shows that a separate or combined vaccine will not be necessary in order to protect against different subtypes of HBV.

The ad subtype is common in the U.S., Europe, and Asia. However, the subtype most commonly affects, in addition to those in dialysis centers, drug addicts, and populations of the Middle East, western Africa, India, and some areas of eastern Europe.

The study was conducted by scientists from the Wolf Szmuness Laboratory of Epidemiology, the Lindsay F. Kimball Research Institute of the New York Blood Center, and the NIH Clinical Center.

It was supported by a contract from the National Institute of Allergy and Infectious Diseases, and a grant from the National Heart, Lung, and Blood Institute.

Dr. Wolf Szmuness designed and conducted this trial until his death on June 6, 1982. Authors of the report include Dr. Wolf Szmuness, Dr. Claudio E. Stevens, Edward J. Harley, Dr. Edith A. Zang, Dr. Harvey J. Alter, Dr. Patricia E. Taylor, Anita DeVera, George T. S. Chen, and Dr. Aaron Kellner.

What Causes Male Infertility?

In a recent Medicine for the Layman talk, Dr. Richard Sherins, senior investigator, Developmental Endocrinology Branch, NICHD, discussed the causes of male infertility.

According to Dr. Sherins, some studies suggest that at least one couple in eight seek medical advice from a physician concerning a reproductive matter and, of these, a significant fraction of the cases involve male infertility.

While infertility is not life threatening, it nevertheless creates a great deal of anxiety and frustration.

In the male, the brain and testes communicate via a series of hormones. These hormones virilize the body and produce a supply of sperm adequate for procreation.

Dr. Sherins explained that sometimes an alteration in the chromosomal makeup of the body's cells leads to a significant deterioration of testicular function.

Klinefelter's syndrome is the most common disorder, characterized by an extra chromosome (the normal male pattern is XY, while for females it is XX). This condition occurs in one in every 200 male births. The males produce a supply of sperm but are sterile.

Male infertility increases progressively as the sperm count falls below 20 million sperm per cc, but the minimally adequate ejaculate is difficult to define.

Analysis of multiple semen specimens reveals that there is marked variability in sperm output; that stress, viruses, and fever affect the quality and quantity of sperm; and that some men are able to impregnate their wives with only 10 to 20 million sperm per cc.

Treatment of men with idiopathic infertility (where the mechanism for poor semen quality is unknown) has generally been unsuccessful.

Alcohol, marijuana, environmental toxins, chemotherapeutic agents and certain antibiotics have adverse effects on testicular function.

Varicocele (varicosity of the testicular veins) also plays a role in male infertility. The quality of sperm function is the critical issue. Sperm are normally motile, and the tail or flagellum propels the sperm in a progressive, spiral motion. Such orderly events have specific biochemical events as their basis.

An enzyme, protein carboxyl methylase, must be present for sperm to be motile. Also, when small structural pieces (dynein arms) containing ATPase are missing inside the sperm tail, sperm do not move.

Dr. Sherins feels that more research into the biochemical causes of sperm dysfunction is needed before any great advances will occur in the understanding of how to manage men with infertility.
Federal employees began earning quarters of coverage for Medicare eligibility Jan. 1, 1983, through the Tax Equity and Fiscal Responsibility Act of 1982 signed into law by the President.

Employees will pay 1.3 percent of annual salaries up to a maximum of $35,700 in 1983, which will eventually entitle them to Medicare Part A hospital insurance coverage if certain requirements are met.

Federal employees will pay only the 1.3 percent Medicare portion of the Social Security tax. They will not be eligible for other Social Security benefits unless they have coverage for non-Federal work.

Medicare Part A insures inpatient care in hospitals and skilled nursing facilities and home health services. Employees who become entitled to Part A may enroll in Medicare Part B Supplementary Medical Insurance by paying a monthly premium after age 65. Medicare Part B insures physician's services, outpatient hospital and physical therapy and other medical supplies and services.

The 1.3 percent deduction from salaries will be made on biweekly gross pay. For example, a biweekly gross pay of $459.58 would have $5.97 deducted for Medicare Part A.

Quarters of employment under Social Security from non-Federal employment will combine with the newly covered Federal employment towards the required quarters of coverage for Medicare purposes only. However, the other requirements for Medicare such as age 65, disability, or end-stage renal disease, must be met.

Any individual who is an employee of the Federal Government at any time during January 1983 and who was employed by the Federal Government prior to 1983 will receive deemed Federal quarters of coverage for their service prior to January 1983.

An employee's family members who would have been entitled to Medicare benefits on the Federal employee's account if the Federal quarters of coverage were all Social Security quarters of coverage will also have Medicare if they meet the law's other requirements.

These are: a spouse age 65 or with end-stage renal disease; a disabled adult child or child with end-stage renal disease; a dependent parent at age 65; or an age 65 divorced spouse, or an age 65 or disabled requirement.

Family members of employees who are eligible for Medicare based on deemed Federal quarters of coverage will also have Medicare if they meet the law's other requirements, but only if the Federal employee has applied for Medicare and an award has been, or is being made.

Employees who are already qualified through Social Security covered employment, or through a family relationship with a worker who is qualified, do not need and will not have Federal quarters of coverage developed for Medicare purposes. However, such employees will still pay the 1.3 percent tax on their earnings, up to the maximum amount.

Federal employees who have resigned or retired prior to Jan. 1, 1983, and who are not employed by the Federal Government at any time during January 1983 will not receive deemed quarters of coverage for their prior Federal service.

Employees will receive a pamphlet further explaining Medicare for Federal employees and their family members.

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Research Resources Wins Seven Communication Awards

Publications of the Division of Research Resources won seven awards in the Society for Technical Communications' annual regional contest held recently in Rosslyn, Va. Six other NIH publications were also cited.

STC is the world's professional organization dedicated to the advancement of technical communication. About 70 chapters and branches are located in the United States, Canada, and elsewhere in the world. The purpose of the contest is to identify and encourage excellence in all areas of communications, including writing, editing, art, and photography.

The awards to the DRR Research Resources Information Center and other NIH offices were given in the following categories:

- Complete Periodicals—first place, Research Resources Reporter, April 1981 issue. The Journal of the National Cancer Institute received second place, and the National Institute of Neurological and Communication Disorders and Stroke, third for Neuroepidemiology.
- Periodicals—DRR won second place for Chimpanzee Language Experiments Enable Retarded Children to Communicate, March 1981 (no first place award given); third place, Chimpanzee Antibodies: Potential Weapons Against Cancer, December 1981; and Diagnosis, Cause and Treatment of Alzheimer's Disease, June 1982; fourth place, Family Behavior: Key to Managing Juvenile Diabetes, August 1981.
- All published in Research Resources Reporter.
- Annual Reports—second place, DRR Program Highlights, 1980, (no first place award given); fourth place was given to the Division of Computer Research and Technology for its 1981 annual report.
- Books—third place awards were given to the National Cancer Institute for Research Frontiers in Aging and Cancer: International Symposium for the 1980's, and Third International Symposium: Cancer Therapy by Hyperthermia, Drugs and Radiation.
- Brochures—second place, Exercise and Your Heart, was given to the National Heart, Lung, and Blood Institute. Third place was awarded to DRR for CARTOS: Modeling Nerves in Three Dimensions.
- All first and second place winners in each category will automatically enter the STC International Publications Competition.