Secretary Califano Discusses Challenges Facing NIH

He was invited by NIH Director Dr. Donald S. Fredrickson to express his views on the responsibilities of science to the public.

In his prepared remarks, Secretary Califano said "NIH is not just a national institution—it is a national treasure. Eighty percent of the Nation's fundamental biomedical research is supported by this institution.

"Much of the encouraging news about the Nation's health status in recent years can be traced to the work of NIH: work that has helped us bring about a decline in infant mortality; a decrease in deaths from cardiovascular disease; and an ever lengthening life span."

The first challenge facing NIH as well as himself, noted Secretary Califano, is of "maintaining excellence as NIH moves in some new and unfamiliar directions."

He explained that "NIH is broadening its reach beyond the traditional biomedical context into other fields: health care research, technology assessment, environmental inquiries; research directly related to prevention to name only a few fields."

In connection with the Department-wide preventive health initiative, now getting under way, the Secretary singled out several Institutes undertaking new studies:

- The National Cancer Institute will study the relationship between diet, environmental chemicals, and cancer.
- The National Heart, Lung, and Blood Institute will continue and extend its studies into the effects of diet and smoking on heart and lung disease.
- The National Institute of Allergy and Infectious Diseases will bolster its research efforts on infectious tropical diseases, and also attempt to develop a malaria vaccine.
- The National Institute of Child Health

NHLBI's Dr. Stadtman Shares Hillebrand Award

Dr. Thressa C. Stadtman of the NHLBI Laboratory of Biochemistry has been named co-winner of the 1979 Hillebrand Award by the Chemical Society of Washington. She shares the award with Dr. James R. Griffith of the Naval Research Laboratory.

Dr. Stadtman was honored for her research into the biochemistry of vitamin B₁₂ and its derivatives and on the functional role of selenium in metabolism.

A vitamin B₁₂ deficiency can result in pernicious anemia, and the vitamin or its derivatives have been shown to participate as catalysts in 12 separate biochemical reactions. Five of these were discovered in Dr. Stadtman's laboratory.

A selenium deficiency is also associated with certain nutritional diseases. These include a form of muscular dystrophy called white muscle disease and a hemolytic red cell disorder resulting from a deficiency of a selenium-containing enzyme.

Selenium is an essential component of at least three enzymes. Two of these, glycine reductase and formate dehydrogenase, have been extensively studied in Dr. Stadtman's laboratory. The studies demonstrated that

(See DR. STADTMAN, Page 11)
Dr. Julio Rivera Named OMS Medical Director

Dr. Julio C. Rivera was recently appointed as medical director of Occupational Medical Services. He replaces Dr. Robert Brandt, now with Equitable Environmental Inc., as medical director of Occupational Health Service at the Navy Department, Washington, D.C.

Served in Navy

Before coming to NIH, he was the director of the Undersea and Radiation Medicine Division, Bureau of Medicine and Surgery, Navy Department, Washington, D.C. Prior to serving in that position, Dr. Rivera was chief of Occupational Health Service at the Naval Ship Yard in Charleston, S.C.

During his Navy service, Dr. Rivera's honors included receipt of two Navy Meritorious Service Medals, in 1977 and 1978, and several Letters of Commendation.

Credit Union Reports Election Results; Initiates Loan Policy Changes

In addition to the election of three members to the board of directors and three members to the credit committee announced by the NIH Federal Credit Union at its annual meeting on Feb. 22 in the Masur Auditorium, changes in loan policies were also announced.

For automobile loans (which are now limited to $5,000) and for unsecured signature loans (limited to $1,000), Credit Union Members will pay 12 percent (Annual Percentage Rate) interest, and for share loans, the interest rate is 8 1/2 percent (APR).

These changes were necessary because of the rates of interest set by the Federal Reserve Board, which resulted in a reduction in savings, and consequently less funds are available for loans.

The appointment of Fred Kruhm as general manager of the Credit Union was announced by the board of directors at a later meeting. Mr. Kruhm, who has been with the Credit Union since 1972 and served as deputy general manager since 1977, replaces Thomas M. Mannix, who recently retired on disability.

The reelected executive committee members are: Catherine P. Dougherty, president; Albert Cleveland, vice president; Frances Zubovic; NICEDS, Doris Parker; NIH, Roger L. Gilkeson.

High Blood Pressure Control

FASEB To Hold 63rd Annual Meeting

The 63rd annual meeting of the Federation of American Societies for Experimental Biology will be held this year from Apr. 1 through Apr. 10 in Dallas, Tex. The 10-day meeting is expected to attract about 20,000, including 15,000 biomedical scientists.

Approximately 7,000 scientific papers reporting research in the life sciences will be presented in meeting rooms in the Convention Center and in nearby hotels serving as headquarters for the six FASEB societies.

A highlight in the program will be an NIH Night, sponsored by the FASEB Public Affairs Committee, to be held Apr. 3 at 8 p.m. in the Convention Center theater, at which a panel of four NIH representatives will discuss various aspects of the grant and contract awards process.

Representing NIH will be Dr. William F. Raub, NIH Associate Director for Extramural Research and Training; Dr. Doris Merritt, Special Assistant to the NIH Director; Dr. S. Stephen Schiaffino, chief, Scientific Review Branch, DRG; and Helen R. Schroeder, Assistant Policy and Procedures Officer, OD/NIH.

The panel will discuss four topics: Recent Trends in NIH Awards; Reducing the Nonfiscal Requirements on Research; Revisions of the Peer Review System; and Status of Research Training.

On the lighter side, the NIH Alumni Association will sponsor an alumni mixer for former NIH'ers on Apr. 4 from 5:30 to 7:30 p.m. in the Pavilion Room of the Fairmont Hotel.

Dr. Henry Blackburn of the University of Minnesota will present the opening address at dinner on Wednesday evening, Apr. 4. The Honorable Paul Rogers, former Congressman from Florida, will present the keynote address Apr. 5.

Dr. Norman M. Kaplan of the University of Texas Health Science Center at Dallas will chair the conference, which is sponsored by the National High Blood Pressure Coordinating Committee.

The NIH Record

March 20, 1979
Sen. Charles Mathias Addresses Scientists

In his address before the Interassembly Council of Scientists on Mar. 8 in the Masur Auditorium, Senator Charles McC. Mathias underscored Congress’ continuing commitment to basic research. NIH’s budget has steadily increased since the agency was created in 1948. However, for the first time, the administration’s NIH budget request of $3.172 billion is slightly below that of FY 1979.

Senator Mathias, stating his commitment to encourage Congress to increase the NIH budget, called upon the NIH scientists to “give NIH competent, efficient management (and) be prudent with the taxpayer’s money. If there is waste, you must cut it. If there is fraud, you must expose it. If there is abuse, you must eliminate it.”

A member of the Labor-H.E.W. Appropriations Subcommittee, the senator pointed out that every dollar spent by NIH saves society $20 in reduced health care costs and increased human productivity. He stated that NIH is in the forefront of the struggle to reduce public spending because the agency’s efforts ultimately result in fewer hospital visits and in healthier people.

In closing, Senator Mathias said, “Good health is the most precious gift that we could give the American people. That gift is within your reach. We, in the Congress, have a moral obligation to help you grasp it.”

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Dr. von Brand Honored Posthumously By Robert Koch Foundation

The Gold Medal and Scroll, the most prestigious award of the Robert Koch Foundation, was presented posthumously at a recent ceremony, to Mrs. Theodor von Brand, widow of the late Dr. von Brand, by Ambassador Berndt von Staden of the Embassy of the Federal Republic of Germany.

Dr. von Brand, internationally recognized parasitologist with the Laboratory of Parasitic Diseases, National Institute of Allergy and Infectious Diseases, was honored for his outstanding research in the field of parasitology.

Born and educated in Germany, Dr. von Brand came to this country in the late 1930’s, joining NIH in 1947. He served as head of the Physiology and Biochemistry Section of the Laboratory of Parasitic Diseases until his retirement in 1969.

After retirement, Dr. von Brand’s continued interest in parasitological research led to the publication of two new texts: Parasitenphysiolog in 1972, and his forthcoming Biochem-

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Dr. Simon Returns To Conduct Seminar on Finances

Dr. Francis M. Simon is returning to NIH to conduct a financial seminar on Tax and Financial Planning Techniques on Tuesday, Apr. 3, at 11:30 a.m. in Wilson Hall, Bldg. 1.

The seminar is sponsored by the NIH Recreation & Welfare Association.

Dr. Simon, regional vice president of the Putnam Group—an investment group managing over $5 billion—is a member of the New York and Federal bars. He is the author of several books and numerous articles which have appeared in professional journals.

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R&W Offers Trip To ‘Shoot the Rapids’ On May 5

Shooting the rapids is an exhilarating and unforgettable experience. R&W will take you to the awe-inspiring and unspoiled Cheat River in West Virginia on Saturday, May 5.

The $32.50 cost for the trip includes the raft trip and lunch on the river. R&W will provide camping or lodging arrangements if desired. Transportation to West Virginia will be via car pools.

The Cheat River Canyon is a very special kind of place. Almost immediately downstream of the “put in” is Decision Rapids. It gives a taste of the river, and true to its name, presents a decision: to take this last opportunity to leave the canyon or to proceed and meet the challenge and thrill of Beach Run Rapids, Old Nasty, and Even Nastier.

After lunch, one can take on a series of the five most challenging rapids: Tear Drop, High Falls, Maze, Coliseum, and Pete Morgan’s.

Besides the almost continuous stream of rapids, there is the gorgeous scenery. Don’t miss this exciting experience, sign up now at the R&W Activities Desk, Bldg. 31, Rm. 1A-18.

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New Volume Lists Research Grants Awarded From FY 1978 Funds

The publication, National Institutes of Health Research Grants, Fiscal Year 1978 Funds, has recently been issued. The volume presents 16,687 research career program awards and research grants awarded by NIH from FY 1978 funds.

A summary indicating the extent of financial support given by each supporting component is presented. In addition, grants and awards are shown by recipient area, principal investigator, and the organization having professional responsibility for the work.

Soon to be released are volumes presenting contracts, training, construction, and medical libraries support.

Single copies of the research grants volume, DHEW Publication No. (NIH) 79-1042, are available free of charge from the Division of Research Grants.

Multiple copies may be purchased at $4.50 each from the Superintendent of Documents, U.S. Government Printing Office, Washington, D.C. 20402, (GPO Stock No. 017-040-0044-3).

All Tennis Players Invited To April 4 Meeting

This year’s first meeting of the NIH R&W Tennis Club will be held on Wednesday, Apr. 4, from 11:30 a.m. to 1 p.m. in Wilson Hall, Bldg. 1.

All NIH’ers interested in tennis, beginners to pros, are urged to attend. League teams, flight tennis, ladder play, a proposed mixed-doubles ladder, lessons, and the spring tournament will be discussed.

A lessons committee and a tournament committee will also be formed. Players are asked to join their fellow enthusiasts in talking, complaining, working and, mainly, playing the very best of games.

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March 20, 1979

The NIH Record
NCI Recognizes Columbia University Research Group As 21st Comprehensive Cancer Center; 2nd in N.Y.C.

Dr. James A. Wolff is director for cancer control. Professional outreach programs include Project OPEN (Oncology Physicians Education Network), a 24-hour-a-day, 7-day-a-week telephone service providing information to physicians about cancer care, postgraduate educational activities, and other services available at the cancer center.

A pediatric cancer control program coordinates care of childhood cancer patients at the center's affiliated hospitals and provides a mechanism for rapid dissemination of new information.

The center is working with a consortium of New Jersey hospitals known as the Cancer Control Network to create a community-sponsored cancer control program.

The hospitals are the Morristown Memorial Hospital in a suburban and rural area, the Overlook Hospital in Summit, a suburban area, and Elizabeth General Hospital in a highly industrialized area.

Director for educational programs is Dr. I. Bernard Weinstein, who also directs a program of research in chemical carcinogenesis. Educational activities include oncology courses for 2nd-year students at the Columbia-Presbyterian Medical Center, and electives in oncology for 4th-year students.

Sailing Club Announces Upcoming Events for Spring

The NIH Sailing Club has announced several important upcoming events for spring.

Their first event will be a movie, slide show, and an equipment display on windsurfing at their next scheduled meeting on Thursday, Mar. 29th in Bldg. 30, Conf. Rm. 117, at 8 p.m.

The purpose of the meeting is to explore the possibility of forming a windsurfing group within the Sailing Club. A portion of the meeting will be devoted to a presentation on windsurfing by Paul Pinkney, east coast representative for Windsurfing International.

All employees interested in windsurfing are urged to attend and join in the discussion. For additional information, call Rolf Tschudin on 496-1024 or 262-4187.

The Sailing Club will also begin its spring racing season with its First Intramural Championship (Hot Shot) Regatta to be held on Apr. 28 at Oyster Harbor, Md.

Winning skippers from the last 2 year's regattas are eligible to compete in this event. After this year's race, the club's perpetual Intramural Championship Trophy will be presented to the winning skipper.

The club's Apr. 28 regatta will give contestants a chance to race at an intermediate level; in anticipation of competing in future sanctioned Flying Scot events.

The Sailing Club's trophy will be on display and interested employees can find out further details about the regatta at the Mar. 29 NIHSA meeting.

Federal Retirement Forum To Be Held on Friday, Mar. 30

A federal retirement forum composed of retirement program experts will be held on Friday, Mar. 30, at Masur Auditorium from 6 to 8 p.m.

Retirement issues that will be discussed include Social Security coverage, annuities to Federal retirees and what changes in regulations may become retroactive.

Reservations for the forum are necessary and may be obtained by contacting the Federal Professional Association at 592-0016. Their office is open from 8:30 a.m. to 8 p.m., Monday through Friday and on Saturdays from 9 a.m. to 1 p.m.
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Peer Review System Described

The NIH peer review system is based upon two sequential levels of review, referred to as the "dual review system." Both levels have statutory bases.

The first level of review is performed by scientific review groups which are established, in general, along lines of scientific disciplines and consist of experts in relevant research fields. The scientific review groups managed by the Division of Research Grants are referred to as Study Sections.

Review Levels Noted

The Study Sections consist of 12 to 20 members each and have as their primary function the review and evaluation for scientific merit of research grant applications.

Other scientific review groups are managed by the Bureaus, Institutes, and Divisions and have diverse review responsibilities, such as multidisciplinary research requests and a variety of other specialized programs, including research contract proposals.

The second level of review for research grant applications is performed by a national advisory council or board for each B/1/D which supports extramural research. These groups are comprised of both scientists and nonscientists and have broader responsibilities.

Program Knowledge Essential

The mix of members brings to bear on the grant review and award process knowledge in each of the relevant programmatic areas, familiarity with NIH procedures as well as awareness of the roles of the diverse institutions in biomedical research and of the health needs of the American people.

The councils and boards also offer advice and make recommendations on policy and matters of significance to the mission and goals of the B/1/D's they serve.

The second level of review for contract proposals is conducted by an executive staff committee of each of the B/1/D's. Each scientific review group is composed primarily of non-Federal scientists selected by NIH for their competence in the particular scientific areas for which that group has review responsibilities.

Meets 3 Times Yearly

Review groups usually meet three times yearly. Each meeting generally requires 2 or 3 days of intensive review of research proposals.

Six to eight weeks before the meeting date, the Executive Secretary, who is an NIH health scientist administrator, assigns specific applications to each member who prepares written detailed critiques prior to the meeting and leads the discussion of these applications at the meeting.

In addition, every member is expected to read and be prepared to contribute to the discussion of all other applications to be reviewed at the meeting.

Members also participate in project site visits when these are deemed necessary for an adequate review of a specific application and to survey, as scientific leaders, the status of research in their field.

Members generally serve terms not to exceed 4 years.

Procedures for Nominations

Begin With Exec. Secretaries, End With NIH Director

Recommendations for membership on NIH scientific review groups originate with NIH Executive Secretaries who, on the basis of personal knowledge of the disciplines and of the scientists who are making significant research contributions, identify candidates, lists of female and ethnic minority scientists, scientific publications, and recommendations from NIH staff and current and former members.

Responses to announcements issued by NIH will constitute an important new source of potential members. Approximately 25 percent of the positions become vacant each year. One candidate is nominated for each vacancy.

Once that candidate has been identified, the steps in the nomination procedure are:

- Recommendation by the Executive Secretary;
- Review and concurrence by the B/1/D Director;
- Determination by central NIH staff that all administrative criteria are met;
- Issuance of a letter that advises the potential member of the conditional status of the appointment until completion of the Confidential Statement of Employment and Financial Interests;
- Receipt and review of that statement and other appointment documents; and
- Notification of appointment.

Final appointment is made by the Director, NIH.

NIH Inviting Nominations For Membership On Its Scientific Review Groups

As a result of the NIH Grants Peer Review Study Team's recommendations, NIH is inviting nominations for membership on its scientific review groups that provide technical and scientific merit review of grant applications and contract proposals.

The mix of members brings to bear on the grant review and award process knowledge in each of the relevant programmatic areas, familiarity with NIH procedures as well as awareness of the roles of the diverse institutions in biomedical research and of the health needs of the American people.

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RSV and Other Respiratory Viruses Cause Of Naples' Infant Disease Outbreak, Say Experts

Responding to a long-distance plea for help, two scientists from the National Institute of Allergy and Infectious Diseases, Dr. Stephen Suffin and Dr. Gregory Prince, journeyed to Italy last month, joining a group of international experts asked to evaluate an outbreak of infant respiratory disease in Naples.

According to the panel of experts, the outbreak most likely was caused by respiratory syncytial virus (RSV) and possibly by other respiratory viruses—not by a "mystery" agent.

Viral isolations were made from only a limited number of the babies who died in the outbreak. Adenovirus, influenza virus, and RSV were found among those specimens. The lack of data made it inappropriate to attribute deaths to RSV alone.

The panel deemed the events in Naples similar to seasonal outbreaks observed elsewhere and recommended strategies for handling future situations. Pre-October cases were considered to have causes unrelated to the winter outbreak.

Dr. Chanock Telephoned

NIH involvement began Jan. 25 when a virologist in Naples telephoned Dr. Robert Chanock, chief of the NIAID Laboratory of Infectious Diseases, for help in the outbreak, which the Italian assumed was caused by RSV. Drs. Prince and Suffin, actively engaged in RSV research, were selected, but were delayed until diplomatic formalities were complete and the international panel met Feb. 13-16.

The commission, at the request of the Italian government, was to serve as a temporary advisory committee.

The panel displayed collective expertise in pathology, virology, epidemiology, and respiratory diseases. In addition to the two NIH scientists, members included Dr. William Baine, an epidemiologist from the U.S. Center for Disease Control; Dr. Michele Aymard, head of the influenza surveillance group in southern France; Dr. M. Likar, dean of a Yugoslavian medical school who has research experience in the pathogenesis of viral infection; Dr. Marguerite Pereira, a virologist from Great Britain; and Dr. N. S. Gaihlbrath, an epidemiologist also from Great Britain.

The panel collected no data on its own, but spent 2 days in Rome reviewing presentations by the Italian Ministry of Health concerning Italian investigations. A third day was devoted to a tour of the Naples hospital and laboratories handling the epidemic. After issuing a report on Feb. 16, the commission was dissolved.

The concern over respiratory disease in Naples started last October when 11 deaths of young children were associated with respiratory symptoms. When eight fatalities clustered in the first 2 weeks of January, after seven in November and five in December, concern increased. Then the outbreak seemed to peak, with 24 fatalities recorded during the last 2 weeks of January, and the first weeks of February, bringing the total to 64 for the surveillance period of June 15, 1978, through Feb. 13, 1979.

Drs. Suffin and Prince brought to the commission almost 10 years of research experience with the pathogenesis and immunology of RSV.

Dr. Prince holds a Ph.D. degree in viral pathology from UCLA where he developed the infant ferret model as the first small animal system applied to the study of RSV. He joined the Laboratory of Infectious Diseases as a senior staff fellow in 1977, and began a study of RSV in cotton rats which turned out to more closely parallel human disease. This was another first for RSV research.

Dr. Prince's work at UCLA was continued by Dr. Suffin, a pathologist. Dr. Suffin studied the ferret immunological response to RS virus, especially the transfer of short term immunity from mother to nursed offspring.

In 1978, Dr. Suffin was invited to join the LID under the Intergovernment Personnel Act and is on loan from UCLA's department of pathology for 2 years. RSV has been vigorously studied by the Laboratory of Infectious Diseases since the virus was identified as an agent in human infection by Dr. Chanock in 1957. Current investigations, as pursued by Dr. Prince, Dr. Suffin, and co-workers, center on the study of various aspects of RSV in four animal models, the ferret, the cotton rat, the chimpanzee, and the owl monkey.

A major project of the LID has been the development and animal testing of weakened strains of RSV as prototype vaccine materials. Ongoing studies of RSV strain characteristics, methods of inoculum preparation, routes and frequencies of administration, and host responses will help determine strategies for effective immunological protection.

These vaccine studies are still in experimental stages in animals and have no application to the Naples situation.

VISITING SCIENTIST PROGRAM PARTICIPANTS

<table>
<thead>
<tr>
<th>Date</th>
<th>Name and Affiliation</th>
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<tbody>
<tr>
<td>2/22</td>
<td>Dr. Gabriel Elgavish, Israel, Section on Molecular Chemistry. Sponsor: Dr. Gunther Eichhorn, NIA, Gerontology Research Center, Baltimore.</td>
</tr>
<tr>
<td>2/25</td>
<td>Dr. Fiorenzo Battaini, Italy, Laboratory of Biochemical Genetics. Sponsor: Dr. Alan Peterkofsky, NHLBI, Bg. 36, Rm. 4C09.</td>
</tr>
<tr>
<td>2/25</td>
<td>Dr. Maria Canese, Italy, Laboratory of Infectious Diseases. Sponsor: Dr. Robert Purcell, NIAID, Bg. 7, Rm. 202.</td>
</tr>
<tr>
<td>2/25</td>
<td>Dr. V. Subramoni Iyer, India, Laboratory of Carcinogen Metabolism. Sponsor: Dr. Elizabeth Weisburger, NCI, Bg. 37, Rm. 3R25.</td>
</tr>
<tr>
<td>2/25</td>
<td>Dr. Sang Shin Park, Korea, Laboratory of Molecular Carcinogenesis. Sponsor: Dr. Harry Gelboin, NCI, Bg. 37, Rm. 3E24.</td>
</tr>
<tr>
<td>2/26</td>
<td>Dr. Ada Elgavish, Israel, Laboratory of Molecular Aging. Sponsor: Dr. Bertram Sacktor, NIA, Gerontology Research Center, Baltimore.</td>
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<tr>
<td>2/26</td>
<td>Dr. Evan Williams, Sierra Leone, Laboratory of Biorganic Chemistry. Sponsor: Dr. John H. W. Daly, NIAMDD, Bg. 4, Rm. 410.</td>
</tr>
<tr>
<td>2/27</td>
<td>Dr. Toshiaki Mano, Japan, Laboratory of Biomedical Sciences. Sponsor: Dr. Janice Chou, NICHD, Bg. 6, Rm. 311.</td>
</tr>
<tr>
<td>2/28</td>
<td>Dr. Eva Qwarnstrom, Sweden, Laboratory of Biological Structure. Sponsor: Dr. Arthur R. Hand, NIDR, Bg. 30, Rm. 212.</td>
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<tr>
<td>3/1</td>
<td>Dr. Eric Long, Switzerland, Laboratory of Biochemistry. Sponsor: Dr. Igor David, NCI, Bg. 37, Rm. 4D06.</td>
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March 20, 1979

The NIH Record
Dr. Markley, NIAMDD Burn Expert, Dies of Heart Attack Feb. 28

Dr. Kehl Markley, III, 55, an NIAMDD burn treatment specialist whose interests included painting, poetry, sculpture, stamp collecting, and archeology, died after suffering a heart attack at his Bethesda home on Feb. 28.

Dr. Markley’s interest in burn treatment began in 1951 when, after finishing his medical internship at New York Hospital, he was sent to Peru to oversee clinical trials in the use of a salt solution in the treatment of shock and burn victims.

While there, Dr. Markley’s research proved that salt solution treatment of burn and shock victims was superior to the then conventional plasma therapy.

His work demonstrated that severe burns resulted in the suppression of certain immune reactions in a patient’s body. His research proved that a patient, even after he was treated, was susceptible to infection because of his weakened immunological condition.

Dr. Markley was born in Pennsbury, Pa., graduated from Pennsylvania State University in 1943, and from the University of Pennsylvania Medical School in 1947. He served in the U.S. Army during World War II. His membership in professional groups included the American Physiological Society and the American Burn Association.

While in Peru, Dr. Markley met and later married the former Nena Cabieses in 1952. He is survived by his wife and four children; Sanford, Lena, Pilar, and Richard. Prior to his death Dr. Markley was active in the River Road Unitarian Church in Bethesda.

The Markley family has asked that expressions of sympathy be in the form of contributions to the Kehl Markley Memorial Fund at River Road Unitarian Church, Bethesda, Md.

Ingenious Device Gives Precise Measurement Of Hind Leg Strength in Lab Rats

Scientists at the National Institute of Environmental Health Sciences have reported the invention of an ingenious inexpensive device which gives a precise measure of hind leg strength in laboratory rats. The technique has been used by the institute’s Laboratory of Behavioral and Neurological Toxicology to investigate the effects of environmental contaminants on laboratory animals’ nerves and muscles.

The device consists of a strain gauge with an attached T-bar, on which the rat’s hind feet are placed, and a platform on which the rat rests its front feet. A puff of air from behind, administered by the experimenter, startles the animal, causing it to jump from the T-bar. The strain gauge measures the force of the jump reflex in the hind legs.

The hind limb strength measurement is a parallel procedure to a forelimb grip strength testing method also developed at NIEHS.

The forelimb grip strength device measures the force required to make a rat release its grip on a grasping ring connected to a recording strain gauge.

Both instruments are useful for detecting increases and decreases in muscular strength. The hind limb strength measurement appears to be particularly important for studying the effects of environmental contaminants.

According to Dr. Patrick A. Cabe of LBNT, “The very great length of the nerve fibers in the hind limbs seems to make them especially vulnerable to attack by a variety of chemical substances.” Dr. Cabe and Dr. Hugh A. Tilson, also of the NIEHS laboratory, are co-developers of the hind limb strength test.

The hind limb device was described in a paper authored by the two scientists which appeared in Pharmacology Biochemistry and Behavior, a scientific journal (Vol. 9, pp. 133-136). The forelimb device was described in the previous issue of the same publication (Vol. 8, pp. 101-102).

Advantages of the limb-strength devices over other kinds of tests for neuromuscular strength include the minimal training required for users and animals, the low cost of the unit, the level of quantification obtainable, and the sensitivity of the devices. Both have been used successfully in studies of laboratory animal exposure to acrylamide, inhaled carbon disulfide, and polybrominated biphenyls (PBBs).

Nursing in Ambulatory Setting Is Conference Topic

The Clinical Center Nursing Department and the Outpatient Nursing Service will present a conference on Primary Nursing in an Ambulatory Setting on Wednesday, Mar. 28, at 3 p.m. in the Masur Auditorium.

This conference has been approved for 0.2 continuing education units (CEU), and all NIH staff are invited.

Rabies Transmitted Through Corneal Transplant

The first case of rabies transmitted between humans through corneal transplant is described by scientists from the National Institute of Neurological and Communicative Disorders and Stroke in the Mar. 15, 1979, issue of the New England Journal of Medicine.

Dr. Sidney A. Hoffer and colleagues report that a 37-year-old woman died of rabies 50 days after receiving a corneal transplant from a forester whose death was thought to be due to Guillain-Barré syndrome.

The woman’s death was also first attributed to Guillain-Barré syndrome, but tests conducted at the NINCDS Infectious Disease Branch revealed rabies virus in her eyes and brain. Rabies virus was later found in the eyes of the forester.

Rabies vaccine was given as a preventive measure to at least 60 members of the medical staff who cared for the victims.

A diagnosis of rabies can be easily missed, the authors pointed out, because in up to 20 percent of cases, symptoms mimic Guillain-Barré syndrome—a neurological disorder characterized by progressive paralysis. Rabies was not initially considered since neither the forester nor the woman had a history of an animal bite.

The authors advise caution when approving certain patients as organ donors. Patients with postinfectious polyneuritis (inflammation or degeneration of peripheral nerves) should probably not be accepted, they suggest, nor should patients with a neurotic disease suspected of being caused by a virus.
CALIFANO
(Continued from Page 1)
and Human Development will conduct research on the economic, social, behavioral, and environmental consequences of population growth and demographic changes.

A second challenge confronting us, said Secretary Califano, is “the challenge of restricted budgets and limited resources.”

Underscoring the need to maintain scientific excellence, he noted that construction had begun on two new facilities—the Clinical Center Ambulatory Care Research Facility and the National Library of Medicine’s Lister Hill Center for Biomedical Communications.

Obviously pleased, Secretary Califano regales his audience with personal anecdotes, as well as terming NIH “a national treasure.”

The NIH Fire Alarm Sounds—What Do You Do?

Recently the fire alarm was sounded in one of NIH’s combined office and laboratory buildings. Smoke began to drift, and was blown into several offices by the ventilation system.

People began to leave immediately upon hearing the alarm. Some left their areas and forgot to close the doors—closing doors helps to retard the spread of smoke and fire through a building. Others did close the doors, but some of these employees also locked the doors to their areas.

Close But Don’t Lock Door

When the Fire and Rescue personnel arrived, they searched for the smoke source and any endangered people. Open doors allowed smoke to travel throughout, and the specific source could not be immediately ascertained. Locked doors prevented Fire and Rescue personnel from entering suspected areas. Only after an inordinate amount of time were they able to get things under control.

In case of fire emergency, the NIH Safety Office suggests the following to protect yourself and assist Fire and Rescue personnel:

- Activate the building fire alarm.
- Dial the NIH Fire Department, 116, and tell them—
  - Building number
  - Floor number
  - Room number
  - Nature of emergency (smoke, fire, etc.)
  - Your name
- Turn off gas and electrical appliances.
- Close all doors to confine fire, smoke, or fumes—do not lock.
- Proceed to the nearest exit in an orderly manner.

Do you have relationship problems? Call Employee Assistance Program 496-3164

David Saunders Heads Information Systems Branch of NHLBI

David Saunders has been appointed chief of the Information Systems Branch, Office of Program Planning and Evaluation, National Heart, Lung and Blood Institute. He has served as information systems coordinator for that office for the past year.

Prior to his arrival at NIH, Mr. Saunders spent 15 years in private industry in data processing and systems development and design, and for the past 10 years had been working on the design of large information systems for agencies of the Federal government.

In addition to his official duties as branch chief, Mr. Saunders serves as executive secretary of the NHLBI Information Systems Working Group, which determines for the Institute future directions in data processing and information systems.

Mr. Saunders received his undergraduate degree in mathematics from the University of Miami, and has done graduate study in operations research at the University of Richmond and systems management at American University.
Task Forces Suggest Techniques For Antenatal Diagnosis

Three task forces, meeting at a Consensus Development Conference at NIH on Mar. 5-7, issued recommendations about various techniques used in antenatal diagnosis. Each dealt with a separate topic—predictors of hereditary disease and congenital defects; predictors of fetal maturity; and predictors of fetal distress.

The task forces, comprised of scientists, physicians, lawyers, ethicists, other specialists, and consumer representatives, developed draft documents for each of these topics prior to the 2½-day conference, sponsored by the National Institute of Child Health and Human Development. They then produced final conclusions during the meeting based on draft papers and lengthy debate, which included extensive give-and-take by members of the audience.

During the discussion on hereditary disease and congenital defects, panelists noted that each year in this country 100,000 to 150,000 infants are born with various types of defects. Within the past 10 years, technological advances have made it possible to diagnose many of these fetal defects during the second trimester (4-6 months) of pregnancy. Procedures now available include amniocentesis, pulse echo sonography (ultrasound), fetoscopy, and measurement of alpha fetoprotein in maternal serum and amniotic fluid.

Recommendations Noted

- **Amniocentesis**, the best known of these techniques, involves insertion of a needle into the uterus to withdraw a small amount of amniotic fluid to be analyzed.
- The panel on hereditary disease and congenital defects recommended:
  - Any pregnant woman age 35 or older should be advised about the possibility of undergoing amniocentesis (for detection of chromosomal abnormalities in the fetus). A pregnant woman also should be offered the option of amniocentesis if certain birth defects have appeared in previous children or in other members of the family.
  - Although a physician may inform a woman she is at a higher-than-usual risk of bearing a defective child, the ultimate decision on whether to have amniocentesis should be up to the patient.
- Ultrasound is a valuable technique for viewing the fetus and placenta prior to amniocentesis, but more clinical research will be required before it can be relied upon as a tool for diagnosis of physical defects in its own right.
- Fetal hearing and fetal blood sampling remain experimental and are not ready for general use at this time. Measurement of alpha fetoprotein in amniotic fluid is now an accepted practice for detecting neural tube defects in pregnancies at high risk for them, and for all women undergoing amniocentesis for other reasons.
- In addition, it may soon be possible to screen large numbers of pregnancies by measuring alpha fetoprotein in a blood sample from the pregnant woman. This screening procedure, however, cannot be recommended for wider use until pilot studies prove its efficacy.

Predictors of fetal maturity are obstetrical techniques used to determine the age of a fetus and whether its lungs are mature enough to permit survival outside the uterus. Ultrasound and third trimester amniocentesis are two techniques available for determining fetal maturity.

Among recommendations issued by the panel on fetal maturity were:
  - The potential benefits of both techniques in preventing premature deliveries far outweigh the costs and possible risks. But, because the long-range effects are unknown, ultrasound should not be used routinely for all women, and ultrasound and third trimester amniocentesis should be used only when indicated: in high risk pregnancies, in cases where the woman has had previous cesarian sections, and in other cases where the physician feels the information on fetal maturity may be needed.
  - Amniocentesis and ultrasound require considerable expertise, and postgraduate training in these methods should be given to physicians with no experience in the techniques.

Conclusions Issued

Fetal monitoring, considered by the panel on fetal distress, is designed to detect decreased oxygen supply (hypoxia), which can lead to fetal death or damage during labor and delivery. Procedures used include electronic fetal monitoring (EFM).

The panel issued these conclusions:
  - The use of EFM should be strongly considered in high risk patients. These include cases of anticipated low birth weight; women with complications of pregnancy; when there is the presence of meconium in the amniotic fluid; and when abnormal fetal heart rate is detected.
  - Although there is no evidence that EFM reduces mortality or morbidity in low risk patients, under certain circumstances mothers may choose this monitoring even in low risk situations. In any case, whether or not EFM is used, it should not be a substitute for clinical judgment.
  - Appropriate use of EFM should include a full discussion with the patient to learn about her wishes and concerns about fetal monitoring. EFM may be considered intrusive by women who desire a natural, family centered birth, but when properly used and explained it need not be.

The NIH Office for Medical Applications of Research and the Fogarty International Center assisted NICHD in planning the conference.

Copies of the final reports will be available in about 2 months. Call (301) 496-5133 or write Office of Research Reporting, NICHD, Bldg. 31, Rm. 2A-34, NIH, Bethesda, Md. 20205.
NINCDS Study
On Parkinson's Disease
Needs Normal Volunteers

Normal volunteers are still needed for a study on Parkinson’s disease conducted by the Experimental Therapeutics Branch, NINCDS.

Researchers will test the theory that one cause of parkinsonism is an acceleration of the normal aging process, and will try to identify factors which lead some people to develop brain changes that cause Parkinson’s disease.

The study will evaluate changes in brain chemistry as reflected in the cerebrospinal fluid of normal healthy volunteers, 20 to 70 years of age. A sample of cerebrospinal fluid will be obtained from each volunteer through a spinal tap.

Since headaches occasionally occur if patients move about soon after a spinal tap, volunteers will be asked to lie down for several hours after the procedure. Other complications are rare.

In addition, tests will be done to measure the dexterity of the hands and the electrical activity of the muscles that move the fingers. These tests are painless and involve no risk. A variety of tests of such intellectual abilities as memory and reasoning will also be given. These involve no risk.

Volunteers must not be blood relatives of persons with Parkinson’s disease, but spouses may participate. All volunteers will be paid according to NINCID guidelines.

For further information, contact Dr. Govindan Gopinathan, Bldg. 10, Rm. 3D-12, telephone 496-4604.

N.Y. Yankees, Baltimore Orioles Meet in Thursday Night Game

Last year's baseball world champions, the New York Yankees, and the Baltimore Orioles will swing their bats again this year at a Thursday night Apr. 12 game at Memorial Stadium in Baltimore.

N.N.C. Recreation and Welfare Association has arranged reserved seats and round-trip bus fare for the game, for $7. Buses will leave Bldg. 31-C at 6 p.m. and return after the game.

Employees can sign up for tickets at the R&W Activities Desk, Bldg. 31, Rm. 1A-18.

NIH Golf Association Plans
Apr. 3 Outing at Bretton Woods

The R&W-sponsored NIH Golf Association is now planning for the forthcoming golf season. The first stroke play outing will be held Apr. 3 at Bretton Woods.

In all, there will be six stroke play outings—two per month—until August when the double elimination match play begins.

There will be additional prizes—for the best in their flights.

All employees who wish to join should contact any of the following members of the NIHGA board of directors:

Dan Kenney, president; Bill Cissell, vice president; Ralph Stork, secretary; Jim Harrington, treasurer; Joe Corliss, handicapper; and team captains Ed Fitzgerald, Larry Willhite, Bob Lutz, Dave Rogerson, and Brad Crowley.

Blind and Disabled Children Eligible for SSI Program

Blind and disabled children along with adults are eligible for payments under the Supplemental Security Income Program, says Walter Miller, manager of Maryland's Social Security Office in Silver Spring.

Normally SSI payments are made to persons who are 65 or over, blind, or disabled. Their amount of payment is based upon a person's income and personal property.

In the case of children, the parents' income and property are considered when eligibility is determined, said Mr. Miller. For a child to be considered for SSI payments, his physical or mental impairment must be comparable in severity to one which would prevent an adult from working, he said. The child's impairment must be considered to be of a lasting nature or will persist for at least 1 year in order to be eligible under the SSI program.

Blindness is defined under the program as someone whose vision is less than 20/200; even with the aid of eyeglasses.

Anyone knowing a disabled or blind child who might qualify for SSI payments should contact his nearest Social Security office.

Reprints Describe 4 General Clinical Research Centers

Reprints of four magazine articles, each describing General Clinical Research Centers (GCRC), are available in a publication produced by the Office of Science and Health Reports, Division of Research Resources.

The four articles, which appeared originally in medical center publications, describe the GCRCs at Washington University, Mayo Clinic, Duke University, and the University of Texas Health Sciences Center in Dallas.

GCRCs are special patient-centered hospital research units funded by DRR at medical centers across the U.S. The 75 centers are miniature research hospitals within the larger host hospital, providing specialized clinical research facilities to host institutions.

Copies of the publication containing the reprints are available free by writing: Office of Science and Health Reports, Division of Research Resources, Bldg. 31, Rm. 58-13, NIH, Bethesda, Md. 20205.

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US-USSR To Cooperate In Vision Research, Scientific Exchange

The United States and the Union of Soviet Socialist Republics have begun formal collaboration in research on eye diseases.

The two Nations will engage in cooperative vision research projects and scientific exchange under provisions of the US-USSR Program for Health Cooperation, affording vision research the same priority as other ongoing collaborative health research efforts in cancer, cardiovascular diseases, artificial heart, environmental health, schizophrenia, arthritis, and influenza and acute respiratory diseases.

World Blind Estimated 40 Million

In announcing this formal exchange, HEW Secretary Joseph A. Califano, Jr., said, "... this new collaboration between the U.S. and the USSR in vision research comes at a time when experts are estimating that the number of blind people worldwide, now estimated at 40 million, could double by the end of this century."

"By working with the Soviet Union to foster eye research, we hope to contribute to the prevention of such an enormous increase in global blindness and at the same time work to improve the well-being of those who already suffer from disabling eye diseases."

Coordinating the cooperative vision research program for the U.S. is Dr. Carl Kupfer, Director of the National Eye Institute. Professor Michail M. Krasnov, Director of the All-Union Scientific Research Institute of Eye Diseases of the Soviet Ministry of Health, is coordinator for the USSR.

The decision to embark on a formal collaboration in eye disease was reached after an exchange of visits and subsequent informal contacts between Drs. Kupfer and Krasnov over the past 5 years.

This exchange has resulted in the identification of specific research projects and of individual scientists who would participate initially in a vision research exchange program. Detailed plans for implementing the new collaborative effort were developed at the

GWU Offers Several Courses Covering Electron Microscopy

A series of practical courses on scanning and transmission electron microscopy are being offered by George Washington University during June.

Transmission Electron Microscopy is scheduled for June 4-15; Scanning Electron Microscopy, June 18-22 and June 25-29; and Combined TEM and SEM, June 4-22.

Primary emphasis will be on specimen preparation, operation of electron microscope, X-ray microanalysis, and photographic and darkroom techniques.

The tuition charge is $595 for TEM, $520 for SEM, and $935 for the combined program.

For more information write Fred Lightfoot, Department of Anatomy, G.W.U., 2300 "I" Street, N.W., Washington, D.C. 20037, or call (202) 676-2881 or 3511.

Dr. Rowe, NIAID, Two Others Share Paul Erlich-Ludwig Darmstaedter Prize

Dr. Wallace P. Rowe, chief of the Laboratory of Viral Diseases, National Institute of Allergy and Infectious Diseases, was honored on Mar. 14 by the Paul Erlich Foundation, Frankfurt, Germany, with its prestigious Paul Erlich-Ludwig Darmstaedter Prize for 1979 for his significant research accomplishments.

The award, which Dr. Rowe shared with Dr. Arnold Graff and Dr. Otto Muhlböck of Hamburg, consisted of a gold medal presented to each scientist and an honorarium shared by the trio.

The distinguished scientists were honored in academic ceremonies at St. Paul's Church in Frankfurt on the 125th birthday of Dr. Erlich.

The following day, the awardees met at the University in Frankfurt in a scientific colloquium where each scientist lectured about his specific area of research.

The Paul Erlich-Ludwig Darmstaedter Prize is awarded annually to internationally recognized scientists "who have rendered special services in the fields in which Paul Ehrlich was active—especially blood research, immunology, chemotherapy and cancer research."

Selections are made by the Foundation with recommendations by the previous year's winners.

The prize is presented in honor of two of Germany's outstanding scientists. Dr. Ehrlich, a distinguished bacteriologist, considered a pioneer in immunology and the founder of chemotherapy. Dr. Darmstaedter, a chemist, was the founder of the Vereinigt Chemical Company and authored important works in the field of chemistry. He was responsible for the first manufacture of lanolin, in 1890.

The Paul Erlich Foundation was founded in 1929 by Mrs. Hedwig Ehrlich, the late widow of Dr. Ehrlich and since her death, has been carried on under the sponsorship of the Union and Friends of the Johann Wolfgang Goethe Univ. in Frankfurt-am-Main.

Previous winners of this award have included many Nobel laureates.

Dr. Rowe has been the recipient of numerous honors and awards, including the Rockefeller Public Service Award for his "professional accomplishment and leadership" (1972), the DHEW Distinguished Service Medal (1974), and the Howard Taylor Ricketts Award (1974).

His most recent honors include the National Academy of Sciences' Selman A. Waksman Award in Microbiology and the National Cancer Institute's Annual Virus Cancer Program Award.

Dr. Rowe is also a pioneer in the recombinant DNA research program.

Seventh Session of the US-USSR Joint Committee for Health Cooperation held in Moscow. These calls for initial projects in laser treatment of glaucoma, in research on retinal degenerations, and in studies of cataract.

Commenting on the new cooperative effort, Drs. Kupfer and Krasnov issued the following joint statement.

"We look forward to a highly productive collaboration in vision research. A number of important opportunities exist in this field in which scientists from our two Nations can offer their unique expertise and capabilities, not only for our mutual benefit but for the benefit of people everywhere who suffer from blinding and disabling eye diseases."

Pre-School Development Center Is Accepting Applications

The NIH Pre-School Development Center in Bldg. 35 is accepting applications for immediate and future placement. The center is open daily from 7:30 a.m. to 6 p.m. and can offer your 3- and 4-year-old child high quality day care, including an excellent early childhood program and nutritious meals.

For further information, contact Sherrie Rudick, 496-5144.