

the



Record

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U. S. DEPARTMENT OF HEALTH, EDUCATION, AND WELFARE

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NATIONAL INSTITUTES OF HEALTH

George F. Russell, Jr., Named OMP Director

Rush hour traffic can get on anyone's nerves. But how would you like to commute from Philadelphia, Pa.? George F. Russell, Jr., the new director of NIH's Office of Management Policy, does—and will—until he moves here in the middle of June.

Mr. Russell replaces Carolyn Casper who retired Feb. 28 after 32 years' Federal service.

OMP consists of three branches involved with administrative management activities.

The Business Systems Branch provides systems analysis and programming for computer applications in business areas, such as personnel and financial management,

(Continued on Page 7)



Mr. Russell

Search Comm. Seeks New NHLI Director

A Search Committee to make recommendations for a new Director of the National Heart and Lung Institute has been appointed by Dr. Robert S. Stone, NIH Director.

Members are: Dr. Robert S. Gordon, Jr., chairman, Drs. Dorland J. Davis, Nathaniel Berlin, Anthony Bruno, Martha Vaughan, Robert L. Bowman, Christian B. Anfinsen, and Ronald W. Lamont-Havers, and Juanita Cooke.

The committee wishes to receive the names of possible candidates who have a record of research accomplishments in fields related to heart, lung, or blood diseases and competence in administration.

Salary will be subject to the Federal executive salary ceiling now set at \$36,000 annually.

Names of applicants and nominees should be forwarded to Dr. Robert S. Gordon, Jr., Bldg. 10, Room 1N212, Clinical Center, NIH, Bethesda, Md. 20014.

New Diagnostic Test to Rapidly Identify Pregnant Primates Will Aid Research

A new diagnostic test that permits the rapid identification of early pregnancies in macaques and baboons has been developed by Drs. Gary Hodgen and Griff Ross of the National Institute of Child Health and Human Development's Reproduction Research Branch.

Dr. Mortimer B. Lipsett, associate scientific director, Reproductive Biology, NICHD, commented that "the new test will greatly facilitate research on pregnancy and on the effects of oral contraceptives in rhesus monkeys."

Hormone Identified

The test depends on the presence of chorionic gonadotropin, a pregnancy hormone in urine. Previously, detection of the hormone in urine of monkeys and baboons involved an expensive, time-consuming biologic assay and required collection and extraction of a 24-hour specimen.

This discovery enhances the usefulness of these primates in the study of the teratogenic effects (physical defects in the developing embryo) of infectious diseases or drugs which are potentially hazardous to man. The developing fetus is vulnerable to such agents causing deformities only during very early pregnancy.

Also, an early definitive test result is vital in the evaluation of most types of fertility control. From the results of such studies, scientists can draw inferences about how these agents may affect fertility or fetal growth and development in man.

The new test is particularly timely due to the restrictions on the importing of primates, especially rhesus monkeys, for research.

Since the shortage has necessitated large scale domestic breeding

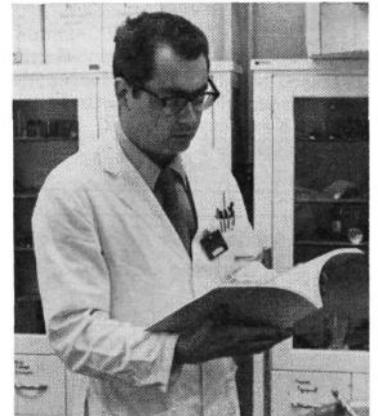
(Continued on Page 7)

Planning Funds Are Approved For Ambulatory Care Center

HEW Sec. Caspar W. Weinberger recently approved \$4 million in funds for planning a Clinical Center Ambulatory Care Center.

When completed, the center will provide clinic space for 150,000 annual ambulatory patient visits as well as laboratories and offices for clinical personnel.

Estimated total cost of the facility is \$65-75 million.



Dr. Hodgen looks over "The Journal of Clinical Endocrinology and Metabolism," in which the recently developed diagnostic test was reported.

Center for Collection of Platelets Opens In Trailer Just Outside CC Blood Bank

An NIH Plateletpheresis Center was recently established to collect platelets for Clinical Center patients with blood diseases such as leukemia and aplastic anemia.

The center, located in a trailer just outside the CC Blood Bank at the west end of Bldg. 10, is being operated under contract.

Blood Bank chief Dr. Paul Schmidt, NIH project officer for the contract, explained that the center will remain open evenings and weekends as well as week days in order to facilitate the collection of the required large amounts of matched platelets.

Formerly, platelets were collected in the NIH plasmapheresis laboratory which is also responsible for collecting white blood cells. Employees may now donate platelets in the new center.

A citizens advisory committee headed by Patricia Alsop is directing the recruiting of donors in nearby communities.

Employees are invited to visit the trailer, meet the staff, and see plateletpheresis. Those between ages 18 and 60 who wish to donate may call Ext. 62022 to make an

(See PLATELETS, Page 6)

Stone Dedicates NIEHS Bldg., Soviet Scientists Attend Ceremony, Picnic

Dr. Robert S. Stone, NIH Director, dedicated a new NIEHS building on May 23 in Research Triangle Park, N.C. The facility houses the library of the National Institute of Environmental Health Sciences, a conference room seating 100, and the offices of the Biometry Branch. Dr. David P. Rall, NIEHS Director, presented a welcoming address.

Soviets on Exchange Visit

The ceremony, which took place late in the afternoon, was followed by a picnic—arranged by the NIEHS EEO advisory committee—for employees and their families.

Four scientists from the Soviet Union who were visiting NIEHS attended both the dedication ceremony and the picnic. They were here on an exchange visit under the Medical Sciences and Public Health Cooperative Agreement.

The Soviet researchers, who are collaborating on research projects with their U.S. counterparts, also

(See DEDICATION, Page 4)



KEEP SMILING—Ethel Kennedy refuses to watch as nurse Elaine Parsons takes a blood sample for platelet typing. Mrs. Kennedy initiated a community platelet donor recruitment drive on May 30 when she visited the Plateletpheresis Center for an HL-A test.—Photo by Ed Driscoll.

the NIH Record

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EEO Advisory Council Holds Open Meeting on June 6

Tomorrow (Thursday, June 6), the NIH EEO Advisory Council will hold a meeting for all employees in the Masur Auditorium from 2 to 4 p.m. Topics to be discussed include EEO program objectives, the role of EEO counselors, and the discrimination complaint process. There will also be a question and answer period.

Annual Art Show at NIH Will Open Next Month

The annual NIH art show, sponsored by the Recreation and Welfare Association, will be held in the Clinical Center lobby from June 24 to July 19.

NIH employees and members of their immediate families (over the age of 16) may submit their entries on June 21. These may be brought to the Masur Auditorium between 3 and 6 p.m.

No Craft, Hobby Items

No craft or hobby items will be accepted.

Each entrant may submit up to 10 pieces with no more than five in one category. There will be a nominal fee of \$1 per entry, and cash prizes will be awarded for outstanding work in each category.

The show will be judged by three professionals.

Entry forms will be distributed throughout the various buildings in the near future, and will also be available on June 21 in the Masur Auditorium.

Samuel B. Calley Dies; Retired DRS Engineer

Samuel B. Calley, 55, a former mechanical engineer at the Office of Engineering Services, died after a heart attack on May 22 at George Washington University Hospital.

After serving in the U.S. Navy during World War II, Mr. Calley, a native of Berwick, Pa., came to the Washington area in 1945. He served as a civilian planner and estimator at the U.S. Naval Receiving Station until he rejoined the Navy during the Korean conflict.

When the war ended, he returned to the naval station, joining the engineering staff at the Division of Research Services in 1960. He retired in 1971.

Mr. Calley was a graduate of Montgomery College and also studied electrical engineering at the Columbia Technical Institute.

He is survived by his wife, Mary Ruth, who is chief of the Clinical Center Special Events Office, his mother, two brothers, and two sisters.

The family requests that expressions of sympathy be sent to the CC Patient Emergency Fund.

Dr. Herman Receives Medallion

Dr. Lloyd Herman, DRS, has been awarded a bronze medallion for special services to the American Society for Microbiology, which is celebrating its 75th anniversary.

Dr. Herman is an environmental microbiologist with ESB.



Mr. Calley

Safety Tips for NIH



THE BEST DE-BUGGING DEVICE AVAILABLE

A laminar flow biological safety cabinet should be used when a possibility exists that viable research materials may contaminate the environment or pose a threat to the health of the laboratory staff—the cabinets are not for use with volatile chemicals or radionuclides.

All cabinets should be tested at least annually by qualified personnel to certify correct containment and operation.

For information on procurement, certification, or use of laminar flow biological safety cabinets, call the Environmental Services Branch, Ext. 66034.

The NCI Office of Biohazards and Environmental Control has available a training package for instruction on effective use of a cabinet.

The package includes color slides and a narrative which outlines procedures to be followed to derive optimum benefits from the cabinet. Call Ext. 66981 to borrow the program.

EHS to Present 'Cataract' As Its Movie of the Month

As its June movie, EHS will present "Cataract," through the courtesy of the National Society for Prevention of Blindness.

"Cataract," a 13½-minute film, gives the personal recollections of actress Sylvia Sidney as she faced loss of sight from cataract, sought help, and regained her vision.

The film reinforces the importance of early treatment, the needlessness of cataract blindness, and safety and success rate of surgery in restoring sight.

The movie will be shown in the Masur Auditorium on Wednesday, June 12, at 11:30 a.m., 12:15 p.m., and 5:30 p.m.

On Thursday, June 13, the film will be presented in Westwood Conference Room D at 1:15 and 2 p.m.

Rules for Overtime Pay Changing For Employees Under Fair Labor Act

The most significant addition to the Fair Labor Standards Act—under which Federal employees are now covered for the first time—effective May 1—pertains to the performance of, and payment for, overtime work.

The overtime provisions apply to GS employees in grades 1 through 4, all Wage Grade and Wage Leader employees, and some others.

These employees covered under the Act are called "nonexempt," and must be paid overtime if they work in excess of 40 hours a week. This includes working during the 30-minute lunch period as well as before or after established work hours.

HEW Interprets Act

According to HEW interpretation of the Act, an employee working overtime is not permitted to get compensatory time instead of payment.

Supervisors are responsible for making sure that nonexempt employees do not work outside of their scheduled tours of duty unless it is intended that they be paid overtime compensation.

This differs from the Civil Service regulations which allow overtime compensation only when work is officially ordered and approved. These earlier regulations continue to apply to overtime work by employees not covered by the FLSA.

Computing Overtime Is Complex

Nonexempt employees are paid overtime under whichever procedure (FLSA or Civil Service regulations) will result in the largest amount of pay.

Computation of overtime pay is a complex procedure, and employees should direct their questions to their personnel office.

The overtime provisions do not apply to exempt employees: a group predominantly made up of those in executive, administrative, and professional positions and all employees serving in foreign areas.

The B/I/D personnel offices will provide supervisors with lists showing which employees are in each category. Employees will be informed by supervisors whether or not they are exempt.

Glee Club Sings for CC Patients

The Knights of Columbus Mixed Glee Club of Arlington, Va., will present a concert on June 12 for CC patients and their families and NIH employees. The performance, sponsored by the Patient Activities Section, will be given at 7:30 p.m. in the 14th floor auditorium of the Clinical Center.

The Pedigree of NICHD's Rhesus Breeding Colony in Davis, Calif., Is Known to Nth Degree! This Knowledge Makes Animals Much More Valuable for Scientific Data



The advisory group on a visit to the center inspects an outdoor enclosure. Scientists at Davis are working on controlling weather extremes inside the enclosures. The environmental control procedures will ensure comfortable quarters for the



rhesus all year 'round. Number-tagged rhesus comfortably perch on a bar. Two males and eight females and their offspring make their home in the enclosure. In cool weather infrared heat is turned on. The object in the background is a feed box.

The background of rhesus monkeys used in research—their medical, reproductive, and genealogical history—is as important to a scientist as the lineage of a blue-blood tracing his forefathers in order to become a member of an exclusive club.

The National Institute of Child Health and Human Development maintains a breeding colony of rhesus at the California Primate Research Center in Davis. This facility ships rhesus to NICHD-supported investigators all over the country—mostly to extramural scientists and some to scientists at NICHD.

Rhesus monkeys from the NICHD resource have been air-shipped to researchers in hospitals and universities who are specializing in pediatrics, biochemistry, neurosurgery, pathology, neurophysiology, endocrinology and the behavioral sciences.

An adult rhesus weighs about 12

to 18 pounds; the weight of a newborn rhesus is a little over one pound. Baby rhesus may be shipped out when they are a few days old. It costs about \$15 to \$18 to air-ship an animal clear across the country—from California to New York or Massachusetts.

Often, investigators studying the newborn request the mother who is in the last stages of pregnancy. In certain types of research the exact stage of pregnancy must be known. They may ask for a female with a timed pregnancy—where the time of conception and current stage of pregnancy is known precisely.

Or they may ask for a random mated pregnancy—where the female lives outdoors with a group and breeds at random. In the latter case, scientists at Davis know within 2 months when pregnancy occurred, but not the precise day as in timed pregnancies. (See story on diagnostic test, page 1.)

Females are loaned on fee to investigators with the understanding that the healthy mother will be shipped back to the colony after the infant is delivered. In some cases, the infant is also returned.

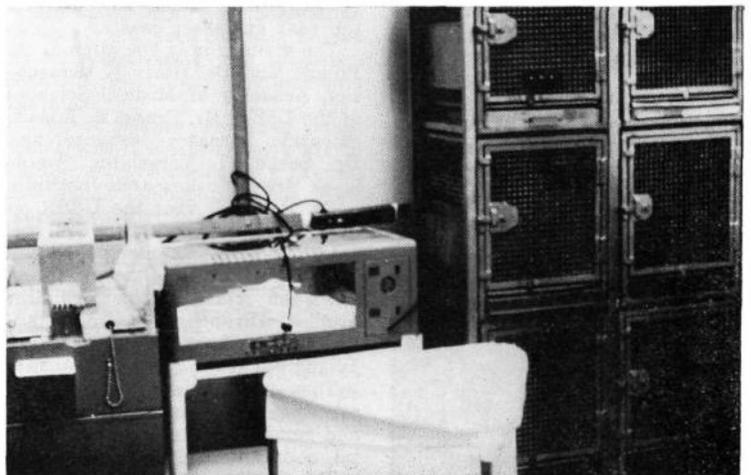
Investigators save money with this system because the animals are maintained in their laboratory a minimum amount of time, and a partial refund is made for animals returned in good health. Also, NICHD retains and expands its proven breeding stock for future needs.

Drs. John I. McKigney, Growth and Development Branch, and Don Gibson, Adult Development and Aging Branch, NICHD scientist administrators who are co-project officers for the facility, periodically inspect the breeding colony, and keep in contact with the facility by telephone and through monthly reports on the health, productivity, and shipments of the animals.

(See NICHD'S RHESUS, Page 8)



Time-mated rhesus in their indoor cages—the time of mating is defined within 2 hours. Researchers may request a female with a timed pregnancy—where the time of conception and current stage of pregnancy is known precisely. A



treatment room contains an isolator for baby rhesus born prematurely or one with respiratory trouble. The mother stays in the same room, in a cage, with the infant.

NIH Visiting Scientists Program Participants

4/7—Dr. Bogomir B. Mrsulja, Yugoslavia, Laboratory of Neuro-pathology and Neuroanatomical Sciences. Sponsor: Dr. Igor Klatzo, NINDS, Bg. 36, Rm. 4B22.

4/15—Dr. Emel Arinc, Turkey, Pharmacology Branch. Sponsor: Dr. Richard M. Philpot, NIEHS, Research Triangle Park, N.C.

4/23—Dr. Eugene Samojlik, Poland, Reproduction Research Branch. Sponsor: Dr. Mortimer B. Lipsett, NICHD, Bg. 10, Rm. 12N-204.

4/25—Dr. Takashi Yamauchi, Japan, Laboratory of Neurochemistry. Sponsor: Dr. Seymour Kaufman, NIMH, Bg. 36, Rm. 3D30.

4/26—Dr. Hiroshi Yamamoto, Japan, Laboratory of Oral Medicine. Sponsor: Dr. Abner L. Notkins, NIDR, Bg. 30, Rm. 303.

4/29—Dr. Emanuela Coronetti, Italy, Medicine Branch. Sponsor: Dr. Muriel Lippman, NCI, Bg. 37, Rm. 5D18.

4/29—Dr. Nobukata Shinohara, Japan, Laboratory of Biochemistry and Metabolism. Sponsor: Dr. Milton Kern, NIAMDD, Bg. 10, Rm. 9B11.

5/6—Dr. Susanne Hetzel, Germany, Developmental Genetics Section. Sponsor: Dr. Kenneth S. Brown, NIDR, Bg. 30, Rm. 106.

5/9—Dr. Javier M. Coll, Spain, Macromolecular Biology Section. Sponsor: Dr. Peter T. Mora, NCI, Bg. 8, Rm. 123.

Other Scientists Listed

5/12—Dr. Jacques St. Laurent, Canada, Laboratory of Clinical Science. Sponsor: Dr. Frederick Goodwin, NIMH, Bg. 10, Rm. 4S239.

5/13—Dr. Tadako Iijima, Japan, Laboratory of Molecular Biology. Sponsor: Dr. Ernst Freese, NINDS, Bg. 36, Rm. 3D30.

5/16—Dr. Takumi Okazaki, Japan, Chemistry Branch. Sponsor: Dr. John P. Bader, NCI, Bg. 37, Rm. 3E06.

5/17—Dr. Branislava J. Mrsulja, Yugoslavia, Laboratory of Neuro-pathology and Neuroanatomical Sciences. Sponsor: Dr. Igor Klatzo, NINDS, Bg. 36, Rm. 4D02.

5/21—Dr. Etsuo Okazaki, Japan, Viral Oncology. Sponsor: Dr. Tadao Aoki, NCI, Bg. 41, Rm. 300.



Nat'l High Blood Pressure Month Ends But Educational Efforts Are Redoubled

May—National High Blood Pressure Month—has drawn to a close, but a number of high blood pressure education programs are now shifting into high gear.

Over 180 American Forces Radio stations (serving an audience of about one million service personnel, civilian employees and their dependents overseas) broadcasted public service announcements about HBP during last month.



Debbie Ris is all smiles as she is presented with a special achievement award from Dr. John B. Stokes III, NHBPEP program coordinator. Mrs. Ris received a certificate and cash award for outstanding service during the development of the National High Blood Pressure Education Program.

Dr. Giovanni Di Chiro of NINDS Gives Cassen Memorial Lecture

Dr. Giovanni Di Chiro, chief of the NINDS Surgical Neurology Branch's Section on Neuroradiology, recently delivered the third annual Benedict Cassen Memorial Lecture at U.C.L.A.

Dr. Di Chiro spoke on Cisternography—Current Concepts.

The lecture series—sponsored by the Southern California Chapter of the Society of Nuclear Medicine—was named for Dr. Cassen, the inventor of the radioisotope scanner.

DEDICATION

(Continued from Page 1)

visited other health facilities on the east and west coasts.

The visitors are: Dr. Migmar A. Pinigin and Dr. Guriy N. Krasovskiy, Academy of Medical Sciences of the USSR, Dr. Ernest A. Rudzit, Scientific Research Institute, and Dr. Sergey I. Voroshilin, Sverdlovsk Scientific Research Institute.

Dr. Rall will visit the USSR on June 16 with two other U.S. researchers—Dr. Raymond R. Suskind, University of Cincinnati, and Dr. John Knelson, chief, Clinical Studies Branch, Environmental Protection Agency in Research Triangle Park.

They will meet with Russian scientists to discuss the biological and genetic effects of environmental pollutants.

This is one of a series of meetings under the U.S.-U.S.S.R. Agreement of Cooperation in the Field of Environmental Protection.

Dr. Pearson Heads NCI Microbiology Section

Dr. Gary R. Pearson has been appointed head of the Microbiology Section, Viral Biology Branch in NCI's Division of Cancer Cause and Prevention.



Dr. Pearson

Dr. Pearson joined the National Cancer Institute in 1970 as a senior staff fellow.

He received his B.S. and M.S. degrees from the University of Chicago and his Ph.D. from Stanford University.

The author of 36 papers, Dr. Pearson focuses his research on virology, and immunology aspects of virally induced carcinogenesis with emphasis on the herpesviruses as putative oncogenic agents in humans and animals.

The significance of a continuing educational program is underscored by the following statistics:

In 1971 there were some 51 million patient visits to practicing physicians for hypertension or hypertensive heart disease.

In 1972 this figure began to rise and was recorded as 58.4 million visits.

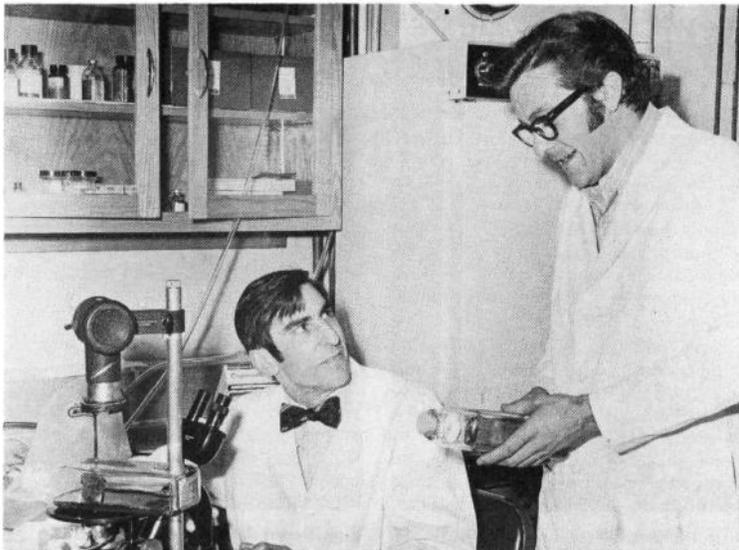
Percentages Rise

In 1973—with the National High Blood Pressure Education Program in operation—such visits climbed to 70.8 million—a 21 percent increase over 1972.

By way of comparison, the total number of visits to office-based practitioners rose only 5 percent during this same time period.



BLOOD PRESSURE NORMAL? During ceremonies proclaiming May as National High Blood Pressure Month, DHEW Sec. Caspar W. Weinberger, (seated left) had his blood pressure checked by Dr. Theodore Cooper, Deputy Assistant Secretary for Health, DHEW. Watching in the background are representatives of the organizations jointly sponsoring High Blood Pressure Month: (l to r) Dr. Emery L. Rann, National Medical Association; Dr. Russel Roth, American Medical Association; Dr. Michael E. DeBakey, Citizens for the Treatment of High Blood Pressure, Inc., and Dr. Richard Ross, American Heart Association.



Dr. Mellman (l) discusses a tissue culture sample with Dr. Thomas A. Tedesco. Medical authorities say genetic birth defects afflict at least one in every 200 infants and are responsible for a large proportion of their deaths.

How Legends on Longevity of USSR Centenarians Evolved, Aging Studies Discussed by Dr. Medvedev

No scientific explanations have been found to account for the longevity claimed for some people in the Caucasus or Altay regions of the USSR—there, long lives are a social rather than a biological phenomenon.

Dr. Zhores A. Medvedev, the noted geneticist, discussed the inhabitants of those areas at a recent lecture in the Masur Auditorium. Dr. Medvedev said the reports about people living to an extreme old age has developed for various social, cultural, traditional, local and political reasons.

He explained that such old people are regarded almost as saints so there is a tendency to exaggerate ages. Also, the publicity in the Soviet press has brought tourism to their areas, fostering competition between villages, and districts for claiming the oldest citizen.

Legends Told

The Soviet researcher further pointed out that because Josef Stalin was interested in legends about centenarians in Georgia—his birthplace—local authorities were encouraged to report such stories to him.

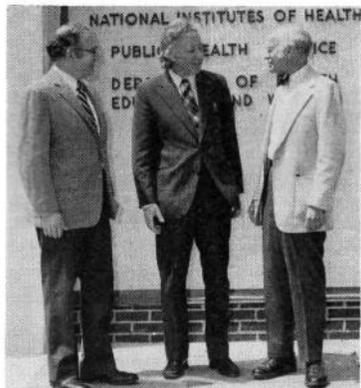
Dr. Medvedev also attended conferences with scientists at the Gerontology Research Center in Baltimore. In a seminar at GRC, he described his studies to uncover the possible molecular bases of aging.

He looked for evidence that errors develop during the synthesis of DNA, RNA, or proteins that might account for the functional losses and eventual death of cells in aging organisms.

His research convinced him that the molecular mechanisms are not the primary ones responsible for senescence.

Dr. Medvedev explained that he now feels "there is no such primary mechanism at the molecular level. Rather, all kinds of age changes, including those at the physiological level, may contribute to the overall aging of the organism."

Since 1973, Dr. Medvedev has been a visiting scientist at the National Institute of Medical Research in London. He formerly headed the Laboratory of Molecular Radiobiology, USSR Academy of Sciences.



Dr. Medvedev (c) meets with Dr. Nathan Shock (r) GRC chief, and Dr. Reubin Andres, assistant chief, at the center in Baltimore where the noted Soviet geneticist delivered a lecture entitled *Error Theories and Aging*.

Physicians Assistants to Meet

NIH employees who are members of the American Association of Physicians Assistants are requested to contact George Mook or Catherine Quigley about an upcoming meeting.

Mr. Mook is in Bldg. 10, Room 3D-08, Ext. 63285; Ms. Quigley, in Bldg. 10, Room B2-A06, Ext. 64411.

Human Genetics Centers Established in U. of Pa., Midwestern Med. School

Two universities, the University of Pennsylvania and the Indiana University School of Medicine, have been awarded Federal funds to establish human genetic centers.

The centers will receive grants from the National Institute of General Medical Sciences.

A grant of \$711,813 will support the center at Indiana's School of Medicine during its first 2 years. It will be located in the James Whitcomb Riley Memorial Hospital for Children. Dr. Walter E. Nance, professor of medical genetics, will direct the research activities.

Twins Studied

The studies will include hereditary deafness, identical twins and their families, normal variations of human proteins and enzymes, chromosome abnormalities, the effectiveness of genetic counseling, the recognition of new genetic diseases and their causes, and the chromosomal localization of human genes.

The Indiana genetics center, the first in the Midwest, is the tenth to receive support from NIGMS.

The grant funds at Pennsylvania will total \$519,560 in the first year; the support is expected to continue for 5 years.

Dr. William J. Mellman, chairman of the university's Department of Human Genetics, is the principal investigator. This center is the ninth to receive support from NIGMS.

According to medical authorities, genetic birth defects seriously afflict at least one in every 200 newborn children and are responsible for a large proportion of all infant mortality in the United States.

Susceptibility Inherited

Many people also inherit traits which make them more susceptible in later life to such chronic diseases as arteriosclerosis and diabetes, arthritis, gout, and several forms of cancer.

Genetic centers previously established with Federal support are in California, Washington, Texas, Maryland, Connecticut, and New York.

Dr. DeWitt Stetten, Jr., Speaks At Washington U. Graduation

Dr. DeWitt Stetten, Jr., NIH's Deputy Director for Science, recently delivered the Commencement address at Washington University's (St. Louis) 113th Commencement program.

His topic was The University and Professional Schools.

Dr. Stetten also received an honorary doctor of science degree at the graduation exercises.

Dr. Burk, NCI, Retires; Joined Institute in 1939

Dr. Dean Burk, who has been with the National Cancer Institute since 1939, retired recently after 45 years of Federal service. Dr. Burk headed NCI's Cytochemistry Section, Division of Cancer Biology and Diagnosis, from 1946 until his retirement.

Dr. Burk began his Federal career in 1929 as an associate physical chemist in the Department of Agriculture before joining NCI as a senior chemist.

He is noted for his research on the role of fermentation and the Pasteur reaction in relation to cancer cell growth; studies of the one quantum mechanism and energy cycle in photosynthesis, and more recently, studies on "healthier cigarettes" and cancer chemotherapy.

Dr. Burk is best known for the "Lineweaver-Burk Plot" for the determination of enzyme dissociation constants which was published in



At his retirement party, Dr. Burk was presented with HEW'S Certificate of Merit by Dr. Nathaniel Berlin (l).

1934, and for his co-discovery of biotin.

Dr. Burk received both his B.S. and Ph.D. degrees from the University of California. From 1927 until 1929 he was a Fellow with the National Research Council and the International Education Board at the University of London, the Kaiser Wilhelm Institute for Biology, and Harvard University.

His scientific honors include the Hillebrand Award of the American Chemical Society and the Gerhard Domazk Award for Cancer Research. In 1971 he received the National Health Federation Humanitarian Award.

Dr. Burk was made a foreign scientific member of the Max Planck Society in 1953, and was knighted in 1970 by the Medical Order of Bethlehem, founded by the Vatican.

Dr. Burk is the author of 227 papers, and is on the editorial board of the *Record of Chemical Process and Enzymologia*.

He will continue to write and lecture, and will serve as a visiting scientist at the National Naval Medical Center. Dr. Burk also plans to go on with his work in portrait painting and his interest in music.

Ouchless.



Join the Payroll Savings Plan.
Take stock in America.

Experts Recommend Guidelines to Improve Hemodialysis Methods

The need to improve methods of hemodialysis was the theme of the recent Adequacy of Dialysis Conference, sponsored by the Artificial Kidney-Chronic Uremia Program of the National Institute of Arthritis, Metabolism, and Digestive Diseases.

The increasing demand for maintenance dialysis combined with recent Medicare funding for this expensive treatment underscores the need to define "adequate" dialysis therapy, to improve its effectiveness, and to reduce its cost.

With these objectives in mind, experts met in Monterey, Calif., to determine guidelines for treatment and patient rehabilitation.

Recognizing that current dialysis therapy is not uniformly successful in reversing the consequences of renal failure, the participants examined the several organ system lesions involved to determine their relationships to adequacy of dialysis treatment.

Until recently, uremic neuropathy (disturbance of the nervous system due to renal dysfunction) was the only lesion shown to have some quantifiable dependence on the extent of dialysis therapy.

The relationships to dialysis of other abnormalities commonly resulting from kidney failure—such as anemia, immunologic impairment, aberrant carbohydrate and fat metabolism, and others—still remain largely undefined.

Once these relationships can be determined, appropriate adjustments in treatment could be effected.

Prior to and during the meeting, the conferees, grouped into five study sections, examined the impact of renal failure on various organ systems: cardiovascular, hematologic, skeletal, neurological, and dietary.

They developed guidelines for monitoring specific uremic lesions or, in cases where existing data are inadequate, suggestions for further study to develop such a capability.

Dr. Benjamin T. Burton, chief of the Artificial Kidney Program,

Eye Institute Reviews Studies for Area Group

The National Eye Institute served as host to the monthly Washington, D.C. Area Ophthalmology Symposium—an informal meeting of educators and investigators—held May 15 in Wilson Hall.

The research and services provided by the various eye care facilities in the Washington area is described each month by one of some 10 participating institutions.

Dr. Carl Kupfer, NEI Director, welcomed the nearly 100 visitors to the meeting, and Dr. Elmer J. Ballantine, NEI clinical director, reviewed the Institute's research activities in ocular hypertension.

Dr. Jin H. Kinoshita, chief of the NEI Laboratory of Vision Research, followed with a presentation of his work in hereditary mouse cataract.

Other Institute speakers were Drs. Toichiro Kuwabara, Robert Frank, Douglas Gaasterland, and David Cogan.

said that more than 12,000 persons are now being maintained by hemodialysis in the United States, with the figure expected to reach 40,000 to 50,000 in just a few years.

Unfortunately, the time required for dialysis and its frequency vary significantly from treatment center to center with relatively little objective data to support one schedule over another.



CC Director Dr. Robert S. Gordon, Jr., demonstrates how easy it is to have an HL-A test. Center supervisor Gail Welcome prepares to draw an ounce of blood under the watchful eye of Dr. Florence Price. The sample is then sent to California for typing. If the donor's HL-A type matches a CC patient's, an appointment for plateletpheresis is made.

New Clues to Basis of Antibody Diversity Discovered by NIAID, NCI Investigators

A team of scientists from the National Institute of Allergy and Infectious Diseases and the National Cancer Institute has come up with new clues to one of the key mysteries of immunology—the basis of antibody diversity.

Working with closely related strains of inbred mice, the investigators found that the ability of the mice to manufacture a particular type of antibody was closely linked to the presence of certain genetic factors.

Antibodies, protein molecules which arise in vertebrates (including humans) when foreign substances (antigens) enter the body, combine with corresponding antigens in lock-and-key fashion and help to inactivate and eliminate them from the body.

A single animal seems to be capable of producing thousands of different antibodies in response to a similar number of different antigens.

It may be possible, therefore, that an animal possesses, from birth, a genetic blueprint for every one of the antibodies it is poten-

tially able to produce. Or, it may be necessary to invoke some special mechanism to explain this enormous capability.

In an attempt to solve the mysteries relating to the genetic basis of antibody diversity, the researchers studied a particular type of antibody, known as the T15 idiotype, initially obtained from several independently arising tumors of mouse antibody-forming cells.

Significant Levels Found

T15 antibodies are known to combine with an antigen called phosphorylcholine which is found in certain bacteria.

In the present study, the investigators looked for T15 antibodies in sera of various inbred strains of mice, many of which were closely related. They found significant levels of T15 in several of the strains, but not in others.

Germ-free animals of a T15-producing strain did not have the antibody in their sera; however, when they were placed in a normal (germ-containing) environment, they soon produced it.

T15 Increased

When the scientists specifically immunized T15-producing mice with phosphorylcholine-containing bacteria, the amount of T15 antibody in the animals' sera increased.

Most important, only strains of mice carrying a particular set of genes relating to antibody structure turned out to be T15 producers, although not all strains carrying these genes produced the antibody.

It is known that the genes in question do not themselves direct formation of T15 antibodies. Rather, the investigators demonstrated that these genes are located close to those that do control T15 formation.

Supports 'Germ Line Theory'

The finding that the ability to produce T15 antibodies is inherited in such a clearcut fashion tends to support the so-called "germ line theory" of antibody diversity.

The theory holds that mice and men (along with other vertebrates) possess from birth all the genetic instructions for antibody formation that they will ever have.

NIAID's Rose Lieberman, William Humphrey, Jr., and Dr. Stuart Rudikoff, and Dr. Michael Potter, and Elizabeth B. Mushinski of NCI published their findings in the April 1974 issue of the *Journal of Experimental Medicine*.

PLATELETS

(Continued from Page 1)

appointment for HL-A typing.

HL-A type is similar to ABO blood typing except that HL-A antigens characterize white rather than red blood cells and chances of a match are much less—one in several thousand. Because of this, many volunteers may be needed to find the one whose HL-A type matches that of a CC patient.

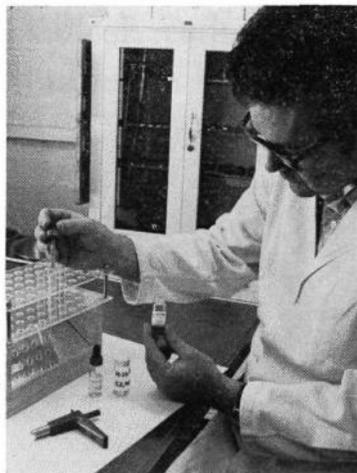
In plateletpheresis, a pint of blood is drawn, the platelets removed, and the remainder of the blood returned to the donor. The process is then repeated; the entire procedure takes approximately 2½ hours.

The donor's body replaces the platelets in a few days, and since no red blood cells are collected, the donors may continue to contribute whole blood.

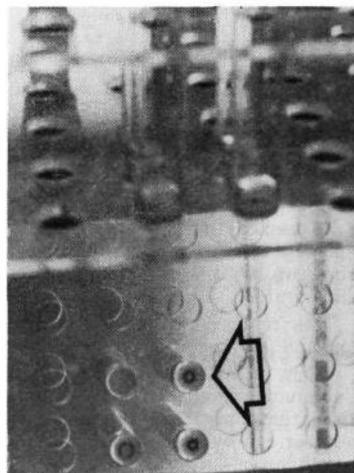
RAPID NEW DIAGNOSTIC PREGNANCY TEST WILL AID RESEARCH



Mr. Barber collects a urine specimen for the diagnostic pregnancy test.



Mr. Turner combines antiserum and other reagents with urine specimens.



In the presence of antiserum, negative test results (left) lack ring formation. The right top ring (see arrow) indicates a positive result.

(Continued from Page 1)

of this primate—used extensively in biomedical research—the new diagnostic test will facilitate maximum breeding efficiency by early differentiation between females which have conceived during the past menstrual cycle and those requiring remating.

The new test procedure was devised using an antiserum, developed by these scientists, to the beta subunit of ovine luteinizing hormone.

The antiserum reacts with antigenic determinants common to the chorionic gonadotropins of humans, gorillas, orangutans, chimpanzees, baboons, and macaques, but not to follicle stimulating hormone or luteinizing hormone of the latter two species.

The presence of macaque or baboon chorionic gonadotropin inhibits the agglutination of human chorionic gonadotropin-coated ovine erythrocytes.

The hemagglutination inhibition test is rapid, simple, and inexpensive and gives the investigator a

definitive diagnosis of pregnancy by the 18th day after fertilization.

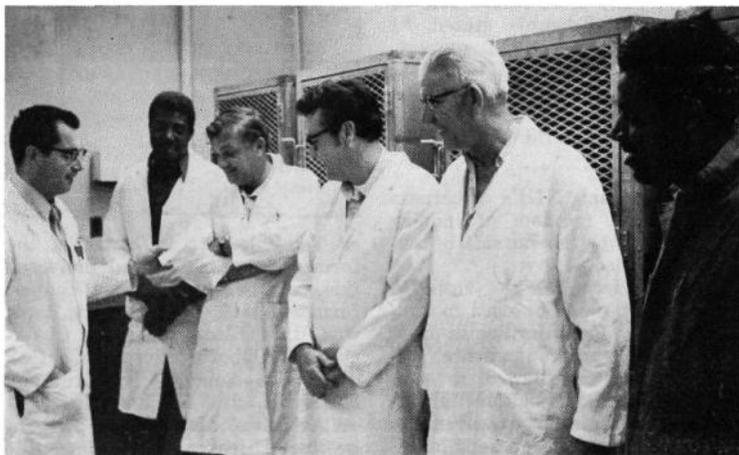
This is up to 3 weeks earlier than conventional pregnancy diagnosis by palpation, and is vastly superior to bioassays which are less sensitive and more time-consuming and expensive.

The new test, which requires 2 hours and only 200 microliters of urine, is reliable in that the frequency of false negative or false positive results is less than one percent.

Other Uses Noted

The antiserum has also been used to develop a highly sensitive and specific radioimmunoassay for chorionic gonadotropin in these primates.

This more sensitive, quantitative method has been used to detect chorionic gonadotropin in serum and urine as early as 9 days after fertilization, which is coincident with implantation of the embryo. However, the radioimmunoassay is not now practical for routine pregnancy diagnosis.



Dr. Hodgen (l) meets with the staff who have been working with the Reproduction Research Branch primate colony (l to r): Donnie Cromartie, Donald Barber, Charles Turner, George Bruchey, and James Lewis. Aline O'Connor and David Hildebrand also contributed to the development of the test procedures.

Dr. Gary J. Nelson Joins DRG Assoc. Program

Dr. Gary J. Nelson, associate research scientist with the New York State Institute for Research in Mental Retardation, has joined the Division of Research Grants Associates Program for a year of training in grants administration.



Dr. Nelson

Dr. Nelson, who conducted studies in the field of lipid chemistry, was a senior scientist at the University of California's Lawrence Livermore Laboratory from 1963 to 1973.

From 1962 to 1963, he was an independent investigator with the American Heart Association, researching the mechanism of atherosclerosis in humans.

He developed infrared spectrophotometric methods for the analysis of phospholipids.

From January 1960 to June 1962, Dr. Nelson held a postdoctoral fellowship with the National Heart and Lung Institute while at the Donner Laboratory, U. of Calif.

Dr. Nelson received the B.S. degree in 1955 and the Ph.D. degree in 1960 from the University of California at Berkeley.

NLM Reschedules Daily Tour

The National Library of Medicine has changed the starting time of its daily tour to 1 p.m., Monday through Friday.

Tours begin at the guard's desk in NLM's front lobby.

GEORGE F. RUSSELL, JR., NAMED OMP DIRECTOR

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for the Office of the Associate Director for Administration.

The Management Operations Branch concerns itself with forms and records management, *Federal Register* and *NIH Manual* issuances, operational planning, system objectives, and employee suggestions.

At one time, the Management Analysis Branch made up the bulk of OMP's work. Through requests, the branch conducts management studies in organization and staffing, manpower utilization, maintenance workload processing, etc.

"This branch is an in-house consultant group," Mr. Russell commented, "when requested, we will look at any aspect of management operations and make recommendations."

"I would like to emphasize to the B/I/Ds that these are reports for their use," he stated, "and that I would welcome more requests."

Mr. Russell began his Federal career in 1958 as a management intern with the Social Security Administration. After 4 years with SSA, he joined NIH as a manage-

ment analyst with OPM under Ms. Casper.

As a National Institute of Public Affairs fellow, Mr. Russell completed his M.P.A. at Indiana University in 1966. He earned his B.A. in 1958 from the University of Buffalo, S.U.N.Y.

He then went to the National Library of Medicine as assistant executive officer and later served as executive officer.

In 1970 he was named executive officer for the National Institute of Child Health and Human Development as principal advisor to the Institute Director on management.

In 1973 Mr. Russell received a Superior Service Honor Award for "... providing the NICHD with exceptional executive leadership in financial, personnel, and administrative management."

For the past year, Mr. Russell was on leave without pay as executive officer of the Health Sciences Center at Temple University. He maintained his Federal status by being assigned to the post through the Inter-Governmental Personnel Agreement.

Personal Pager System Made Easier— 'Just Dial and Wait for a Return Call'

With the recent installation of a new Personal Pager system, anyone using an NIH telephone can contact a particular employee carrying a receiver by dialing an access code plus three digits assigned to activate the squelch (signal tone).

"Under the old system," commented George Hoff, Communications Section head, "anytime you wanted to contact someone carrying a pager, you had to call the switchboard operator—now you can just dial your phone and wait for a return call."

The new personal pager contracted from General Electric offers several advantages over the replaced system.

● With one 330-watt transmitter and a specially designed antenna on top of Bldg. 10, signals can be sent over a 15-mile radius.

Covers 'Dead Spots'

This replaces the several transmitters that were needed to cover "dead spots" the old system could not reach. "In fact," Mr. Hoff said, "with the new method, signals have been received in the lower basements of the National Library of Medicine."

● Telephones in the Landow, Federal, Auburn, and Westwood buildings may also, be used to dial into the system.

● The GE pager operates on FM—an important feature since the AM signal of the phased-out system would regularly upset research experiments involving electronic equipment.

● Nearly 500 receivers are now being utilized by B/I/Ds and the Clinical Center, with a total capacity of approximately 900 users.

This more than triples the capacity of the old system.

● The personal pager eliminates one phone call. To operate the pager, dial the access code plus three digits assigned the receiver.

When a ring is heard, the squelch has been activated—simply hang up. When a busy signal is heard, hang up, wait a few seconds, and dial again.

This replaces calling the operator and leaving a message.

When utilizing the system, the Communications Section emphasizes that only one predetermined number can be used to call back for messages.

● A special feature has been added to the NIH system to contact the seven-man cardiac arrest team.

When they need to be alerted, the switchboard operator can dial one number to signal the entire unit.

To eliminate a return call, she can also send a one-way voice message to inform the team where the emergency is located. This feature is available only to the cardiac arrest team.

B/I/Ds Buy Own Units

When the operator sends a voice communication, she automatically interrupts all other personal pager transmissions. Those trying to contact an employee carrying a receiver need only hang up and dial again a short time later.

Each B/I/D must order and purchase their own units—the Communications Section will maintain and service them.

For additional information, contact the Communications Section, Ext. 65671.

Dr. Edwards Addresses PHS Meeting; Reaffirms NIH's Role in Research



Nurse director Elinor D. Stanford, outgoing COA president, presents the J. D. Lane Award to Dr. Kulczycki. He was given a plaque and a \$200 cash prize for his paper, IgE Binding to Leukemic Basophils.

Dr. Charles C. Edwards, HEW Assistant Secretary for Health, recently told the joint meeting of the USPHS professional associations "the PHS has a more essential and challenging role today than it has ever had before."

Dr. Edwards further emphasized that "the Department is committed not just to retaining the Service, but to giving it new opportunities to provide expert, creative leadership at a time of remarkable change in the total health enterprise of this country."

More than 500 members and guests, representing the Commissioned Corps, the Commissioned Officers Association, and the Civil Service attended the meeting. Dr. Roger L. Black, Clinical Center associate director, served as general chairman.

On the subject of NIH's role in research, Dr. Edwards stated, "I neither have, nor will I support, any notion that NIH is to depart from its distinguished record as the finest biomedical research institution in the world."

Remarks Noted

He said that NIH's greatness rests on the freedom of inquiry fundamental to the pursuit of scientific knowledge.

While society has the right to insist public funds be used to support research on major health problems, "such targeted research efforts cannot be allowed to supplant the kind of fundamental, investigator initiated research on which biomedical progress is largely dependent," Dr. Edwards said.

Other highlights of the 3-day meeting included the annual Luth-

NICHD'S RHESUS

(Continued from Page 3)

An ad hoc advisory group representing several scientific disciplines also meets yearly at Davis to review the progress of the project. During the year they also review, via mail, applications for the purchase of animals submitted by investigators.

Dr. McKigney and Dr. Gibson stated that NICHD scientists increasingly are using the rhesus for studies because of its similarity to man. They explained that any primate larger than the rhesus is difficult to manage and is more expensive to maintain.

Advantage Explained

A major advantage of the NICHD resource is that healthy animals with known medical and nutritional history are much more valuable in research because health problems and variability between animals are greatly reduced. A larger number of animals from imported sources would be required to yield the same quantity of scientific data.

Because of NICHD's decision to organize the rhesus monkey colony, a greater variety of research is underway using these healthy, standardized, well-defined animals.

Other material available from the NICHD resource includes embryonic and fetal substances and certain biopsy specimens.



James B. Davis (r), Office of Administrative Services Director, presents a petition to Paul W. Brown. Signed by more than 100 NIH'ers in Bldg. 1, the document recommended Mr. Brown for an award in recognition of his outstanding performance in running the Bldg. 1 Xerox room. Surrounded by co-workers and friends, Mr. Brown remarked that he "will continue to do no less than he has done before."

Building plan.

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er Terry lecture in honor of the former Surgeon General delivered this year by Dr. Theodore Cooper, former NHLI Director. His topic was High Blood Pressure: Obstacles and Opportunities for Control.

At the banquet, Dr. Anthony Kulczycki, Jr., National Institute of Arthritis, Metabolism, and Digestive Diseases, was given the J. D. Lane Award for the best paper based on original research by a junior PHS scientist.