

the



Record

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

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NATIONAL INSTITUTES OF HEALTH

Dr. George Willis Cited By EEO, 2 Institutes For Special Achievement

Dr. George M. Willis, retired from the National Cancer Institute since February because of illness, recently received an Equal Employment Opportunity Special Achievement Award from NIH Director Dr. Donald S. Fredrickson during presentation ceremonies in the Willis' home.

Dr. Willis was recognized for "invaluable service" in developing the Minority Biomedical Support Program and his dedication and initiative while serving as a member of the Coordinating Committee for NIH Minority Research and Training.

Was Scientist Administrator

In addition, Dr. Willis was cited for exemplary service in his positions as a Division of Research Resources health scientist administrator from 1971 to 1972 and as the program director of the Cancer Biology Program, NCI, from the beginning of 1973 until his retirement.

He received commendations from both DRR and NCI's Division of Cancer Research Resources and Centers for his superior service.

During the presentation, Dr. Fredrickson called Dr. Willis "the one who truly conveyed to the minority community the earnestness of NIH's intent."

He also cited Dr. Willis' role in
(See DR. WILLIS, Page 3)



Dr. Fredrickson (l) congratulates Dr. Willis before presenting the award at a ceremony in the Willis' home.

CC's New Computerized MIS to Improve Communication Speed and Accuracy

After a 4-year effort involving a multidisciplinary team, the Clinical Center's computer-based Technicon medical information system (MIS) is now operating on eight nursing units.

The \$1,980,000 system can handle information in parts of the CC in half the time and with greater accuracy than was previously possible.

For example, on CC nursing unit 5 West, a physician pushes a button on a light pen to use a MIS Video Matrix Terminal (VMT) to prescribe a new medication for a patient.

A medication order is simultaneously printed by MIS high speed multi-printers at the nursing station and at the CC pharmacy.

The order is reprinted on a patient care plan at the nursing station at the beginning of each work shift, on a list when the medication is due to be given, and in the pharmacy once each day for as long as the prescription lasts.

Using MIS for this transaction saves nurses on 5 West from transcribing doctors' orders to the Kardex and then continually checking the Kardex for accuracy.

On 4 West, unit clerk Eleanor Fox types a time and date on the VMT keyboard to reschedule a patient's radiology appointment. The appointment is confirmed and appears almost instantly on the VMT screen.

Mrs. Fox makes no phone calls
(Continued on Page 7)

Dangers of Tick-Borne Diseases Continue Thru' Fall and Winter Season



Dr. James E. Keirans, an entomologist at NIAID's Rocky Mountain Laboratory, Hamilton, Mont., examines a jar in the Bishopp tick collection, recently transferred from the Smithsonian Institution to the world's largest tick collection at RML. For about 50 years, the late Dr. Fred C. Bishopp, an entomologist with the Oscar Johnston Cotton Foundation, used his own system of numbers and types to identify the ticks in the 800 jars and 9 slide boxes of this collection.

Although the tick season generally runs from spring through early summer, persons camping or engaged in activities in wooded areas may also encounter ticks during the fall and winter.

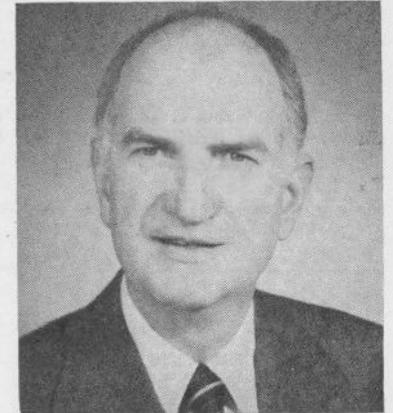
If not diagnosed properly or treated in time with effective antibiotics, one tick-borne disease—Rocky Mountain Spotted Fever—can be fatal.

The name is a misnomer because the disease has occurred over almost all the U.S. and is not confined to the mountains.

The incidence of the disease has recently been increasing, affecting a number of Washington area residents.

A 62-year-old man in D.C. died of the disease in June. Two dan-
(See TICK DANGERS, Page 6)

Dr. William Jordan Heads NIAID Microbiology and Infectious Diseases Prog.



From 1967 to 1971, Dr. Jordan served on the Infectious Disease Advisory Committee of NIAID. Since 1973 he has been a member of FDA's Panel on Review of Viral Vaccines and Rickettsial Vaccines and is also currently a consultant to the Armed Forces Epidemiology Board.

Dr. William S. Jordan, dean of the College of Medicine, University of Kentucky, from 1967 to 1974, has been appointed director of the Microbiology and Infectious Diseases Program—a new position in the National Institute of Allergy and Infectious Diseases, effective Sept. 1.

The new position reflects the current reorganization of the Institute along program lines. Dr. Jordan will be responsible for grants and contracts awarded for training investigators and for research into the causes, diagnosis, prevention, and treatment of infectious diseases.

Will Aid Various Groups

He will assist advisory groups, work closely with voluntary and professional health organizations in identifying infectious disease research needs, and also coordinate the Institute's infectious disease program with those of four other NIH Institutes and other Government agencies.

As professor of community medicine and of medicine at the University of Kentucky since 1967,
(See DR. JORDAN, Page 7)

Time Limits Will Apply In Visitor Parking Areas

In the near future there will be a time limit on visitor parking on the NIH reservation. All visitor parking in lots 10E, 38A, and one row of visitor spaces in parking lot 1B will have a 3-hour limitation.

All other visitor parking spaces throughout the NIH reservation will have a 2-hour limitation.

This restriction is necessary to eliminate many non-visitors' present abuse of visitor parking areas and to accommodate more bona fide visitors each day.

When an official visitor must overstay the posted limit, the time may be extended by informing the Parking Traffic Control Section, Ext. 66851, of the circumstances.

the  **Record**

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Happiness Is . . . Honesty!

During the evening of July 7, a group of electrical construction workers were moving materials into Bldg. 10. While searching in his pockets for a coin, Fred Lattimore, one of the Satellite Electric employees, accidentally left \$200 in cash, wrapped in a bank deposit slip, on a pallet.

Finder Rewarded

Later, he discovered his loss but could not remember where he might have left the money, since the men had been working throughout the building.

Meanwhile, Ann P. Stiney, on night duty with the Housekeeping Department, found the money and searched for the owner, who was so overjoyed that he insisted she keep a \$20 reward.

NLM Is Subject of New MEDLINE Search List

The National Library of Medicine is the subject of a new MEDLINE literature search.

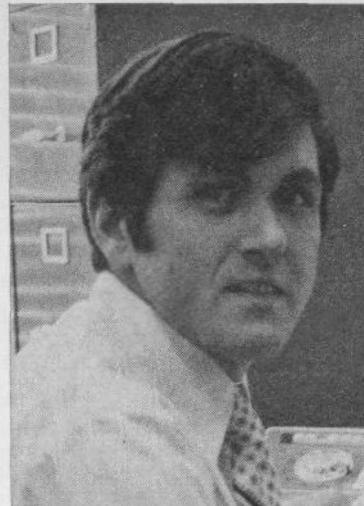
The search, listing almost 500 references, includes articles directly about NLM as well as the Library's relation to medical librarianship, communication systems, and computer processing.

Other new MEDLINE searches include: *Vasoactive intestinal polypeptide; Informed consent, and The role of interferon and interferon inducers in cancer.*

A complete list of literature searches appears in each issue of *Index Medicus* and *Abridged Index Medicus*.

The searches, requested by title and number, are available without charge.

Allan Summers Will Head NHLBI Personnel Office



Mr. Summers will direct the Institute's Personnel Management Branch in performing such functions as recruitment and staffing, classification, training and career development, and upward mobility.

Allan Summers was recently appointed personnel officer, National Heart, Lung, and Blood Institute.

Mr. Summers graduated in 1964 from Catholic University. He served 3 years in the U.S. Marine Corps, including 13 months as a Captain in Viet Nam.

From 1967 to 1970 Mr. Summers worked in personnel at the General Accounting Office in Washington, D.C. In 1970 he joined the Arms Control and Disarmament Agency, serving as personnel officer from 1974 to 1976.

His wife, Anne, is an administrative officer for the National Institute of Child Health and Human Development.

Requestors should send a self-addressed, gummed label to Literature Search Program, Reference Section, National Library of Medicine, 8600 Rockville Pike, Bethesda, Md. 20014.

'Fed'l Register' Publishes Proposed Revised Rules For Outside Activities

A proposed revision in the rules governing outside work and activities of NIH employees was published in the Aug. 2 *Federal Register*.

The rules, which supplement HEW's Standards of Conduct would make less restrictive the conditions under which an NIH employee may engage in work and activities outside Federal employment.

Activities Permitted

Under the new criteria, professional employees could perform profession-oriented activities, including private medical and dental practice, consulting, teaching, lecturing, and speechmaking.

Service to PHS contract- or grant-assisted institutions would now be permitted under certain circumstances.

Top level operating officials would not be permitted to accept remuneration for outside activities except under unusual circumstances. A teaching activity in a particular specialty might involve such an exception.

More Restrictions Listed

NIH officials holding positions that may enable them to influence the award of a grant or contract could not accept an honorarium for any outside work activity from an institution that has recently negotiated or in the near future may seek a grant or contract from NIH.

Register to Vote in D.C.

Persons eligible to register to vote in the District of Columbia who have not registered must do so by Aug. 14 if they wish to vote in the Sept. 14 primary election.

For additional information concerning registration and voting, check the Official Bulletin Boards.



A Patient Emergency Fund benefit softball game drew a spirited crowd of over a hundred behind the National Library of Medicine on July 26. The NIH Gashouse Gang (National Institute of Allergy and Infectious Diseases Clinical Associates) were favored by the crowd, but could only come up with

8 runs. Their professional-looking competitors, the WWDC Radio Wonders, scored 23. Volunteers, who accepted contributions for admission to the game and sold baked goods to aid the Fund, declared the event a "success."—Photos by Kurt Heine.

Camera Club Members Sharpen Photo Skills



Gary Peck, Camera Club member, won the club's print-of-the-year competition last year with this shot.

NIH photo buffs, seeking to sharpen their camera skills and to find people with similar interests, have a club.

The NIH Camera Club usually meets twice a month for competitions, guest speakers, assignment critiques, field trips, or workshops run by some of the 50 club members.

Competitions Held

In competitions, members submit their work for evaluation by an outside judge. Topics for this year's six planned competitions include pictorial, portrait, photojournalism, nature, and slide of the year/print of the year.

Up to four slides may be entered in either the novice or the advanced slide category. There is also a category for black and white prints of any size, and a color print class is planned.

A speaker from the *National Geographic* is tentatively scheduled

Taiwan's Happy Voice Choir To Benefit PEF on Aug. 12

The Happy Voice Children's Choir from Taiwan, Republic of China, will perform Thursday, Aug. 12, at 8 p.m. in the Masur Auditorium.

The program, sponsored by the NIH Recreation and Welfare Association, will include sacred songs, folk music of Europe, Chinese songs and dances, and a violin solo.

The children's group, now on a 3-week Bicentennial celebration tour of the U.S., has appeared on television in Taiwan, and toured the U.S. last year as well.

Tickets—at \$2 each—are available at the R&W Activities Desk, Bldg. 31, Room 1A-18, and at the Westwood R&W Gift Shop, or by calling Ext. 66061. There will be no reserved seats.

Proceeds will benefit the NIH Patient Emergency Fund.

to address the club in November, and two other speakers are planned for the year.

Membership in the club is limited to NIH Recreation and Welfare members and their families, and costs \$3 a year. A darkroom in Bldg. 15K is available to club members for an additional dollar a year.

The NIH Camera Club is a member of both the Photographic Society of America and the Greater Washington Council of Camera Clubs.

For further information, contact Bob Baird, president, Ext. 66037, Bldg. 12A, Room 3053.

NOTICE: 20 m.p.h. Zone

The reservation's posted maximum speed limit is 20 miles per hour. This speed is reasonable and safe, based on factors such as pedestrian activity, parking practices, road characteristics, and accident experience.

Numerous speeding complaints have prompted frequent radar speed surveillance by the NIH Special Police. Teams of officers will check selected locations at different times of the day. Special attention will be focused on areas where moving violations are most prevalent.

The regulations governing traffic on the NIH reservation state that no persons shall drive a motor vehicle in excess of 20 m.p.h. unless otherwise posted. Offenders will be given citations.

UMC Deadline Is Aug. 18

Upward Mobility College fall semester registration must be completed by Wednesday, Aug. 18, for students enrolled during the spring but not summer semester.

Students may register in the college office, Bldg. 31, Room B2-B15.

DCRT Offers Additional Computer Classes to Fill New, Continued Demands

In response to the continuing demand for computer courses—650 personnel were enrolled last fall—the DCRT Computer Center Branch Training Unit has scheduled 36 courses and seminars for this fall, the 9th consecutive year that the Division of Computer Research and Technology has provided training courses and seminars for the NIH community.

Instructors are from both DCRT and the National Institute of Mental Health.

Courses Offered

In addition to the regular courses in programming languages, operating and terminal systems, special facilities and programming aids, the following seminars will be offered: Introduction to Digital Computing for Executive Personnel, Cluster Analysis, and Introduction to Curve Fitting at NIH.

Also, Applications of Time Series Analysis to Clinical Data, Introduction to the Theory of Noise and Brownian Motion, Macromolecule Ligand Binding Model Fitting, Computer Data Communications, and Microprocessor Hardware and Software.

Brochures Available

Brochures describing the courses in detail will be distributed through B/1/D Personnel Offices, or may be obtained by calling the DCRT Computer Center Technical Information Office, Ext. 65431.

The application procedure is outlined at the back of the brochure. Applications should be made before Aug. 24 and will be accepted in the order received until classes are filled.

DR. WILLIS

(Continued from Page 1)

initiating the first NIH Cooperative Agreements involving NCI with DRR and NIGMS in the Minority Biomedical Support and Minority Access to Research Careers Programs.

"This achievement is not only a first for the NCI but also a milestone for the NIH as a whole," Dr. Fredrickson said of the latter accomplishment.

Other representatives of NIH present at the ceremony included: Dr. R. W. Lamont-Havers, NIH Deputy Director, and Raymond J. Jackson, Director of the NIH Division of Equal Employment Opportunity.

Also attending were: Dr. Thomas E. Malone, Associate Director for Extramural Research and Training, NIH; Dr. Thomas G. Bowery, Director, DRR; Dr. Thom-

Dr. Tice Will Head New NIAMDD Section on Cell Function, Ultrastructure

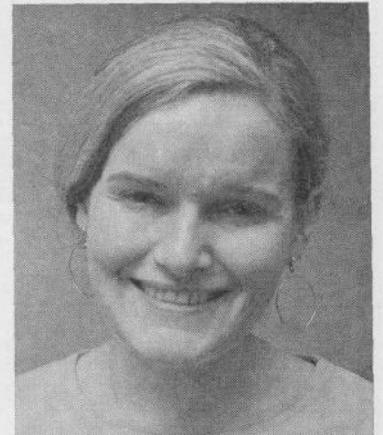
Dr. Lois W. Tice has been named chief of a new Section on Cellular Function and Ultrastructure, established in the Laboratory of Experimental Pathology, National Institute of Arthritis, Metabolism, and Digestive Diseases.

The new Section is particularly concerned with the development and application of methods and instrumentation to permit localization within cells of biochemically defined substances such as antibodies, hormones, and other transmitter substances and their receptor sites.

Graduated From Yale

After receiving her M.D. from Yale University School of Medicine in 1959, Dr. Tice held a fellowship and teaching assistantship for 3 years in Yale's department of anatomy, then was a research associate for 2 years in the department of pathology at Columbia University Medical School.

She came to NIAMDD's Laboratory of Physical Biology in 1965 before joining the Laboratory of Experimental Pathology.



Dr. Tice will head investigations of the ultrastructural changes which various cell types exhibit under changed biochemical, physiological, and pharmacological conditions.

as J. King, director, DCRRC, NCI, and Dr. Zora J. Griffo, chairman, Coordinating Committee for NIH Minority Research and Training.

During the formative phases of the Minority Biomedical Support Program, Dr. Willis once visited 30 minority educational institutions in 1 month. His wife, Edwardlene, met him periodically to deliver changes of clothes as he passed through Washington area airports.

In 1974 his Public Health Service NIH Special Achievement Award citation read, in part, "in recognition of his carrying out duties . . . at a level beyond that expected and sometimes under difficult conditions."

Secretarial Skills Seminar Sponsored by NIAID



Evaluating present attitudes and performances and determining how to meet future challenges gave participants an opportunity to obtain job-related insights and skills. Carolyn Marcucilli (standing r), from the Washington School for Secretaries, was one of the instructors in the course, given under the general direction of Edna Miller (standing c), NIAID employee development specialist.

Recognizing that there is more to being a secretary than typing 60 words per minute, the National Institute of Allergy and Infectious Diseases sponsored a seminar on Essentials in Secretarial Procedures on July 27-29.

The course, attended by 31 NIAID employees, was conducted at NIH by the Washington School for Secretaries.

Practice drills on speaking correctly—for example, "Did you ever pay him?" instead of "D'jever payim?"—and a motivation feedback questionnaire were some of the tools used by instructors.



Kathy Furey, a resident in hospital administration at the Clinical Center, prepares to count a bucketful of pennies recently donated to the Patient Emergency Fund. The \$52.59 worth of pennies were the savings of a former patient. Upon the child's death, the family requested that the pennies be given to the Fund to help other CC patients. To donate to the PEF, call the CC Social Work Department, Ext. 62381, or stop by Bldg. 10, Room 7D-51.

NLM Aids Preservation Of Senator Hill's Papers

Future medical historians delving into the period between Warren G. Harding's administration and Lyndon B. Johnson's will find a wealth of processed and micro-filmed papers relating to the public career and legislative interests of Lister Hill, former U.S. Senator from Alabama.

Pioneered Health Bills

Senator Hill's career as a lawmaker spanned the years 1923-68, and his imprint is to be found on much of the important health legislation of that period.

The material now exists as 910 linear feet of records, estimated to contain over a million items relating to Senator Hill's public life.

The National Library of Medicine has contracted with the University of Alabama in Birmingham (Lister Hill Library of the Health Sciences) to process and microfilm the records.

Monograph Contracted

The contract also includes the preparation of a monograph, *Lister Hill—Health Statesman*, to be written by Dr. Virginia Hamilton, chairman of the University's department of history.

The 200-page monograph will trace the development of health-related legislation which Senator Hill helped steer through the Congress and will evaluate his stature as a statesman in the area.

Senator Hill (with Senator John F. Kennedy) co-sponsored the legislation which in 1956 created the NLM, and lent his name to the research and development component of the Library—the Lister Hill National Center for Biomedical Communications.

It is not hard to learn more. What is hard is to unlearn when you discover yourself wrong.—*Martin H. Fischer.*

Dr. C. L. Mitchell Joins NIEHS to Develop New Toxicology Programs

Dr. Clifford L. Mitchell, a noted central nervous system pharmacologist, has joined the National Institute of Environmental Health Sciences in Research Triangle Park, N.C.

He will be responsible for developing intramural and contract programs in selected areas of behavioral and neurological toxicity of environmental factors and will establish a core group of neuroscientists at NIEHS to provide expertise and advice to the Institute's Director and scientific director.

Because behavioral changes, in many instances, may occur before significant somatic effects can be demonstrated, these changes can serve as an advance warning of other toxic effects.

Dr. Mitchell will also carry out his own research program—developing new tests for detecting behavioral and neurological effects of environmental factors, establishing the dose-response and time-response relationships of these effects, and validating both new and existing behavioral and neurological test procedures.

Dr. Mitchell received his B.A. in 1952 and his B.S. in pharmacy in 1954 at the University of Iowa. After military service, he returned to the University of Iowa and received his M.S. in 1958 and his Ph.D. in pharmacology in 1959.

He then joined the faculty at Iowa. From 1960 to 1962 he did postdoctoral work at Stanford University, returning to Iowa in 1962, and becoming professor of pharmacology there in 1969.

In 1973 he joined Riker Laboratories. Since 1974, Dr. Mitchell has been manager of central nervous system and cardiopulmonary pharmacology at Riker Laboratories in St. Paul, Minn. He has also held a lectureship in the department of pharmacology, University of Minnesota, since 1973.

Belongs to Societies

Dr. Mitchell is a member of numerous professional societies, including the Association for Research in Nervous and Mental Diseases, The Neuroelectric Society, Society for Neuroscience, and International Association for the Study of Pain.

During 1970, he served as a member of the Pharmacology-A Special Study Section for NIH. From 1969 to 1971, he was a member of the Council of Faculties of the Midwest-Great Plains Region of the Association of American Medical Colleges.

From 1972 to 1973, he was a member of the Biometry Panel of the Scientific Advisory Board for

Dr. Zuelzer Receives 2 Honors for Work In Various Fields

Dr. Wolf W. Zuelzer, new director of the Division of Blood Diseases and Resources in the National Heart, Lung, and Blood Institute, has recently received two impressive honors.

The new *American Journal of Hematology* dedicated its second issue to him, and he has been nominated to receive the 1976 Moton-Rasmussen Memorial Award of the American Association of Blood Banks.

This award for his outstanding contributions in immunohematology will be presented to him in San Francisco later this year.

In a two-page testimonial in the *American Journal of Hematology*, the authors encapsulate Dr. Zuelzer's accomplishments in the fields of pathology, hematology, immunology, blood banking, and genetics.

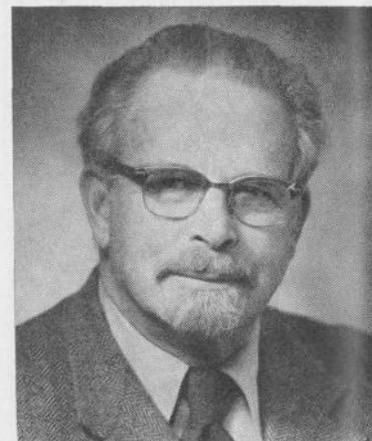
Original Descriptions Noted

They note his original descriptions of megaloblastic anemia in infancy and the genetics and laboratory methods for identification of many of his hemoglobinopathies.

Two decades ago, he initiated a comprehensive approach to therapy of acute leukemia of childhood, which greatly extended the survival of children suffering from disease.

The tribute continues beyond science and medicine into Dr. Zuelzer's interest in the world of art, literature, and music.

He is accomplished on the harp-sichord and piano, and was granted a fellowship at the Sorbonne at age 18 to study French literature.



A recent testimonial to Dr. Zuelzer noted the many "first descriptions" emanating from his laboratories.

the National Center for Toxicological Research.

Author or co-author of more than 75 publications, Dr. Mitchell has also served as consultant to Salsbury Laboratories in Iowa and to the Midwest Research Institute in Missouri.

Rauscher Reviews Role Of X-ray Mammography Breast Cancer Screening

Some 350 NIH women—most from the National Cancer Institute—recently heard Dr. Frank J. Rauscher, Jr., NCI Director, summarize an ongoing review of the role of X-ray mammography in screening for breast cancer, especially in women under age 50.

Entertains Questions

Dr. Rauscher called the July 29 meeting in the Masur Auditorium to permit the women to ask questions and express their opinions.

He and NCI deputy director Dr. Guy R. Newell, Jr., briefly presented data from a breast cancer screening program begun in 1963 and from a current program sponsored jointly by the NCI and the American Cancer Society involving nearly 270,000 women.

Following a question-and-answer session, the women filled out a questionnaire on whether or not they would be willing to undergo mammography as a cancer screening technique.

Of the 287 women completing the forms, 131 (46 percent) said they would have a mammogram, 91 (32 percent) said they would not, and 65 (23 percent) said they did not know.

The women responded according to their age group. They also were asked whether there was a history of breast cancer among the women in their family.

Responses Detailed

Within age groups and according to familial history of breast cancer, the responses were:

- Eighty-seven women under 35 years of age said they had no family history of breast cancer. Of these, 26 (30 percent) would have a mammogram, 34 (39 percent) would not have one, and 27 (31 percent) did not know.

- In the same age group, 35 women indicated a family history of breast cancer. Of these, 12 (34 percent) responded yes, 17 (49 percent) responded no, and 6 (17 percent) were undecided.

- There were 68 women between the ages of 35 and 49 who indicated no history of breast cancer in the family. Of these, 28 (41 percent) said they would have a mammogram, 25 (37 percent) said they would not, and 15 (22 percent) did not know.

- Of the 35-49 age group indicating a history of breast cancer, 12 (86 percent) would have a mammogram, and 1 each (7 percent) either would not or did not know.

- Among the 54 women over age 50 who had no family history of breast cancer, 34 (63 percent)

NIH Visiting Scientists Program Participants

7/1—Dr. Rani Basker Rao, India, Laboratory of Microbial Immunity. Sponsor: Dr. Herbert C. Morse, III, NIAID, Bg. 5, Rm. 224.

7/12—Dr. Hagai Rosenberg, Israel, Laboratory of Biochemistry. Sponsor: Dr. Claude Klee, NCI, Bg. 37, Rm. 4A09.

7/18—Dr. Raoul Marck Toubiana, France, Rocky Mountain Laboratory. Sponsor: Dr. Edgar Ribi, NIAID, Rocky Mountain Laboratory, Hamilton, Mont.

7/18—Dr. Silvana Vallerga, Italy, Laboratory of Neurophysiology. Sponsor: Dr. Arnaldo Lamsky, NINCDS, Bg. 36, Rm. 2C02.

Comes From Israel

7/20—Dr. Avner Ramu, Israel, Reproduction Research Branch. Sponsor: Dr. H. B. Pollard, NICHD, Bg. 10, Rm. 10B17.

7/25—Dr. Mohammed Mendhi, Pakistan Surgical Neurology Branch. Sponsor: Dr. Ayub Ommaya, NINCDS, Bg. 10A, Rm. 3E68.

7/26—Dr. Makoto Chikira, Japan, Laboratory of Chemistry. Sponsor: Dr. Hideo Kon, NIAMDD, Bg. 2, Rm. B1-14.

Australian Visits

7/27—Dr. Cheviot Stanislaus Devere Kidson, Australia, Laboratory of Central Nervous System Studies. Sponsor: Dr. D. Carleton Gajdusek, NINCDS, Bg. 36, Rm. 5B16.

8/1—Dr. Jun-ichi Minamikawa, Japan, Section on Medicinal Chemistry. Sponsor: Dr. E. L. May, NIAMDD, Bg. 4, Rm. 135.

8/1—Dr. Paolo Puccetti, Italy, Laboratory of Immunodiagnosis. Sponsor: Dr. Howard T. Holden, NCI, Bg. 8, Rm. 114.

8/1—Dr. Tonu Mart Wali, Sweden, Laboratory of Biology of Viruses. Sponsor: Dr. Lois A. Salzman, NIAID, Bg. 5, Rm. 303.

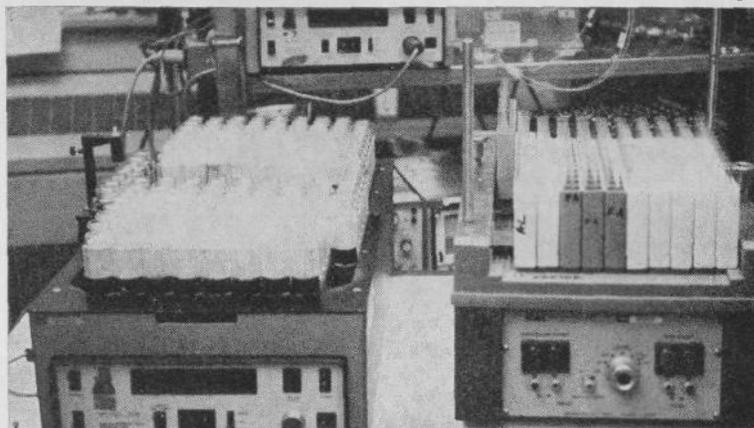
responded yes, 9 (17 percent) responded no, and 11 (20 percent) did not know.

- Seventeen women in the over-50 age group indicated a history of breast cancer in their families. Of these, 15 (88 percent) said they would have a mammogram, and one each (6 percent) responded no or did not know.

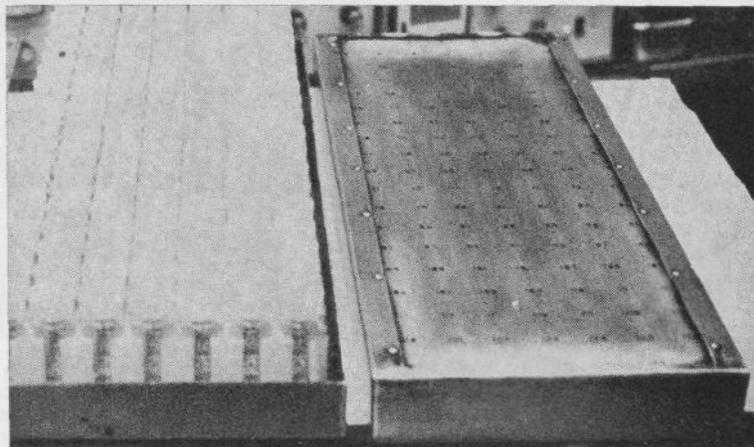
Finally, 12 women gave no indication of whether there were women in the family who had had breast cancer. Of these, four responded in each category—yes, no, don't know.

Our feelings lead us at first to believe that absolute truth must lie within our realm; but study takes from us, little by little, these chimerical conceits.—*Claude Bernard*.

NHLBI Rewards Inventor of Time-Saving Capping Machine That Increases Safety



First, Mr. Kefauver found that the ISCO Model 328 machine (l) saved a step by collecting fluid directly in vials, in contrast to the LKB 7000, which collects fluid in test tubes that must be emptied into vials by hand.



Next, Mr. Kefauver designed organizer trays holding an exact arrangement of vials, and a template (r) that fits on top, avoiding errors and saving a half hour of hand numbering vials.

Bernard C. Kefauver, of the Molecular Hematology Branch, National Heart, Lung, and Blood Institute, recently received a monetary award from the Institute for devising a semi-automatic apparatus for capping and uncapping vials and other containers holding radioactively labeled biological materials for scintillation counting—part of a complete procedure for separation of proteins by ion exchange columns.

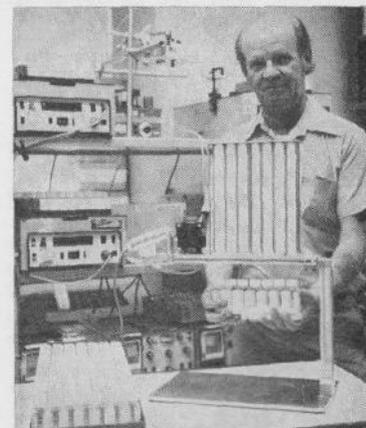
Scintillation counting is widely used in biology and medicine to study the metabolic fate of various substances in the body and for many other purposes.

Earlier techniques required manual capping and uncapping of vials and other containers in conjunction with scintillation counting procedures.

Tedious and time consuming, such techniques also subjected workers to some radiation exposure in the normal course of events and increased this hazard whenever spillage of radioactive substances occurred.

Mr. Kefauver's invention not only eliminates these risks, but also permits uncapping and capping procedures to be done in about one-third the time required for manual techniques.

Mr. Kefauver and Norman Little of the Biomedical Engineering Instrumentation Branch, who assisted



Mr. Kefauver demonstrates the automatic capping/uncapping device which he and Mr. Little invented. Adaptable to other sizes, the apparatus has many applications.

in developing the device, have applied for a patent on their apparatus.

TICK DANGERS

(Continued from Page 1)

gerously ill youngsters have recovered and are receiving long-term treatment.

In Virginia 111 cases were reported last year, and 47 so far in 1976. Maryland reported 30 cases in 1975, and 17 thus far this year.

Historically, the conquest of Rocky Mountain Spotted Fever is closely tied to the establishment and development of the Rocky Mountain Laboratory of the National Institute of Allergy and Infectious Diseases.

RML Develops Vaccine

It was at RML that an effective vaccine was developed and shipped to physicians all over the United States.

Stored away in dozens of drawers at RML is one of the world's largest tick collections.

Begun in 1915 and contributed to by scientists throughout the world, the collection is invaluable to researchers asked to make accurate identification of ticks which may be carriers of diseases.

In addition, RML scientists raise laboratory ticks for their work and for the research of others.

WHO Designated Center

The Rocky Mountain Laboratory has been designated by the World Health Organization as a regional reference center for human rickettsioses, and staff members serve in consultant and collaborative capacities to scientists throughout the world.

Spotted fever is caused by one of a group of organisms known as rickettsiae, which are structurally related to bacteria but, in some of their properties, resemble viruses. The spotted fever agent, *Rickettsia rickettsii*, is transmitted by the bite of a tick.

After an incubation period of 3-10 days, the organism produces an inflammation of the inner lining of the blood vessels. This inflammation is eventually visible in the form of a rash comprising many red spots under the skin.

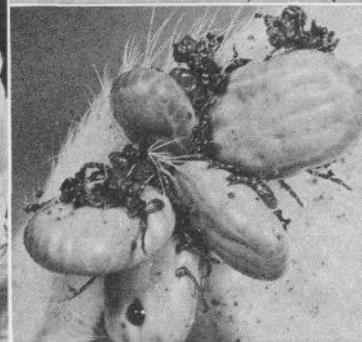
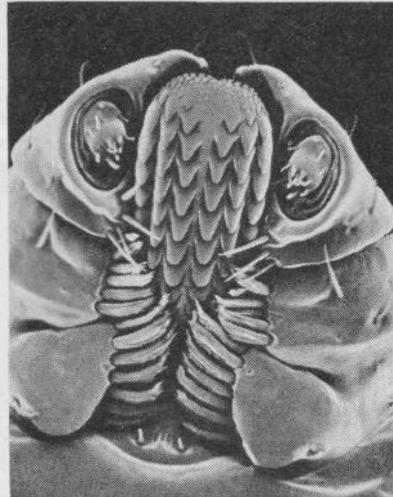
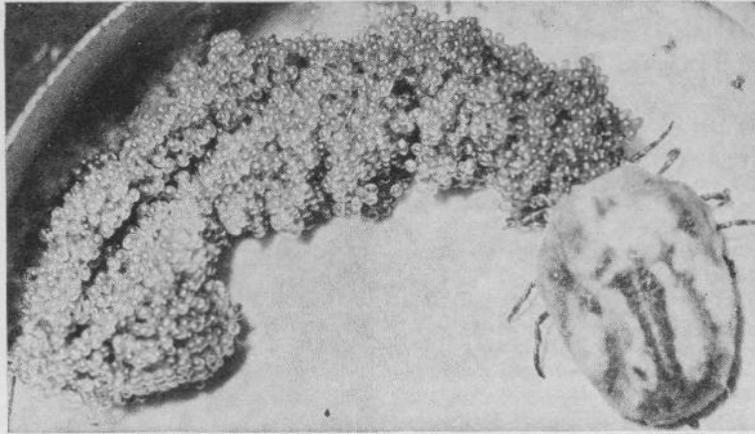
The appearance of this rash on the wrists and ankles is one of the main clues used by doctors to diagnose spotted fever. The rash is preceded, however, by several days of chills, high fever, headache, and bone pain.

Symptoms Described

In untreated, severe cases, the fever may persist for several weeks. Central nervous system symptoms, such as delirium or coma, usually appear by the end of the first week of fever.

During the second week, critical circulatory and pulmonary complications may occur. Full recovery commonly takes several weeks or months in untreated patients.

Early diagnosis and prompt



Top: A female tick lays many eggs. Below l: A greatly magnified tick's head outdoes the monsters of science fiction. Above r: Male (l) and female specimens of *Dermacentor andersoni*, one of the numerous tick species. Below r: Blood-engorged ticks infest a laboratory rabbit's ear.

treatment with antibiotics are very important.

In most tick-infested areas, the number of rickettsiae-infected ticks varies from less than 1 percent to about 5 percent. On the East Coast, the dog tick, *Dermacentor variabilis*, is most likely to transmit the disease.

Thorough Inspection Necessary

A tick has to be attached for several hours before it transmits the disease-causing rickettsiae.

Persons living or vacationing in tick-infested areas should examine themselves carefully for ticks, stripping daily, and thoroughly inspecting their bodies, paying special attention to hairy regions.

Children should be examined twice daily. If a tick is found, it should be removed with care. The best way is to pull it off gently with tweezers.

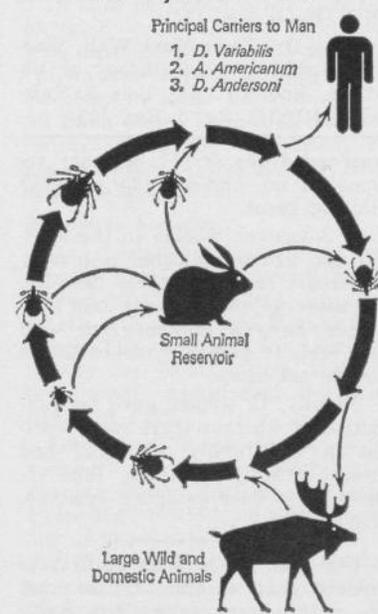
High-Risk Workers Warned

Care must be taken not to crush the tick, thus avoiding contamination of the broken skin with infectious material.

For those working in high-risk occupations — veterinarians and lumbermen, for example — vaccination is recommended with necessary booster doses each year.

Ticks have a complex life cycle, with adults feeding on large animals, such as horses, goats, deer, and dogs.

Life Cycle of Tick



Every man carries a parasite somewhere.—Japanese Proverb.

Grantees to Investigate High Blood Pressure Precursors in Young

Sixteen research grants awarded by the National Heart, Lung, and Blood Institute for the epidemiological investigation of high blood pressure in the young will run from 2 to 5 years. The first year awards total \$2.6 million.

Because elevated blood pressure has been clearly identified as a major risk factor for coronary heart disease, stroke, and congestive heart failure in adults, major programs have been launched to educate both the public and health professionals about the hazards of untreated hypertension.

Study Hypertension Origins

Many researchers indicate that adult hypertension may have its origins in adolescence, or even in childhood or infancy, so the Epidemiology Branch of the Division of Heart and Vascular Diseases, issued a Request for Grant Application to stimulate research projects on precursors of high blood pressure in defined groups of young people.

It is also important to study the extent to which these suspected precursors can explain why certain subgroups within the population have relatively higher rates of hypertension.

Twelve of the sixteen research projects will be dealing with both blacks and whites, one will also include Spanish-Americans, and one will compare two Polynesian groups.

Consider Socioeconomic Factors

These projects are also designed to assess the effects of socioeconomic factors.

Four grants will study twins and family groups, looking at the role of genetic, environmental, and psychological factors as they relate to the development of hypertension.

Three grants will study "tracking" of blood pressure levels in children—testing the hypothesis that one's blood pressure levels relative to other individuals of the same age is fixed early in life, so that individuals tend to remain in the same track as they grow older, unless intervention occurs.

Seek to Identify Predictors

Three other grants will deal with prospective follow-up studies of factors measured prenatally and during infancy to determine characteristics identifying predictors of hypertension.

These studies will draw on data collected from birth to age 7 of more than 35,000 infants with follow-up and examination of subgroups to age 16.

Two grants will study children (See HYPERTENSION, Page 8)

MIS IMPROVES COMMUNICATIONS AT CC

(Continued from Page 1)

or records of the appointment other than the printout made by the MIS.

These examples of MIS efficiency are typical of the improvements the system is bringing to the CC. According to Gerald C. Macks, management systems analyst, a potential problem is reliance on machines that are subject to breakdowns.

Precautions Taken

Paper and pencils are kept on hand "just in case," he says, but "every known precaution has been taken to avoid going off-line for any length of time."

The computer, located in Fairfield, N.J., is linked to NIH by three high-volume, high-speed data transmission telephone lines capable of handling up to 100 simultaneous MIS transactions.

The lines are laid separately in case one is accidentally dug up. Mr. Macks said that Metro temporarily disrupted one line, but the system functions adequately with two—in fact, few people realized that only two lines were in service.

Another safeguard is a backup computer in New Jersey which can take over in the event of a mechanical failure. In case of electrical failure at the computer center, a diesel electric generator can run for 8 hours without refueling.

A computerized information handling system might have been installed at the CC 9 years ago when a need for it was first realized, but the technology was not yet available.

By 1972, the need for such a

system was becoming more urgent as departments were developing their own, less efficient individual computers.

The Office of Clinical and Management Systems was asked to review hospital computer use and found that other hospitals had systems the CC could adopt.

OCAMS then interviewed CC department staff and Institute physicians and investigators, did research, and prepared a statement of the impact a computerized medical information system would have on the CC.

A committee—representing doctors and nurses, the departments of Pharmacy, Medical Records, Clinical Pathology, Diagnostic Radiology, and the Office of the CC Director—was appointed to solicit proposals and evaluate bids.

The Technicon MIS was selected by the committee as the system that could best assist clinical care and support the research objectives of NIH.

Soon after the contract was signed, Technicon workers arrived at the CC. Some will remain long after the system is fully operational, making programming changes, providing 24-hour maintenance, and training physicians.

Other staff are trained by members of their departments. After training, a sign-on code based on name, title, and job is assigned by Technicon for access to the system.

Mr. Macks noted that with 1,675,000 possible codes, it is virtually impossible to figure out someone else's. "A person with no busi-

NIA Has a Winner! Athlete Andy Keys, Determined to Compete, Tries New Feats

The recent Montreal Olympiad showed that women athletes today combine their sports ability with beauty, grace, and the will to win. The National Institute on Aging Research Center in Baltimore has its



Ms. Keys of NIA's Intramural Program in Baltimore shows her winning form with a practice javelin outside the research center building.—Photo by William Fisher.

ness in the system cannot get into it," he said.

After all nursing units are using MIS, and the system is functioning smoothly, Mr. Macks said the CC will begin "flexing the system to do everything it possibly can . . . serving as a demonstration for such a system in a large and complex environment," as well as achieving its primary objective of supporting the research and patient care needs of the intramural clinical research program.

own "wonder woman" in the person of Andreyia (Andy) M. Keys, who is working this summer in the Metabolism Section, Clinical Physiology Branch.

In a recent national tournament Andy won the 100-yard dash, placed second in three events—60-yard dash, archery, javelin throw—and third in the discus.

She accomplished these feats literally sitting down—in her wheelchair. Those who have ever tried to throw anything accurately while seated can appreciate Andy's 23-foot heave of the javelin and her more than 20-foot toss of the discus.

Amazingly, just over a year ago this talented young woman lay paralyzed in the University of Maryland shock trauma unit. She had been shot in the back during a "knock and rob" attempt at her home.

Scored at Harrisburg

With the help of the Maryland Rehabilitation Center, her family, and friends, Andy made her mark at the National Wheelchair Track and Field Tournament held last May in Harrisburg, Pa. Then the former NIA Stay-in-School worker returned to work once again at the NIA Baltimore Research Center.

What will she do next? Well, for starters, Andy will represent Maryland in the Miss Wheelchair America Pageant being held next month in Columbus, Ohio. Judging is based on individual achievement since being confined to a wheelchair, so Andy may just return to Baltimore as the first Maryland winner of the pageant.

DR. JORDAN

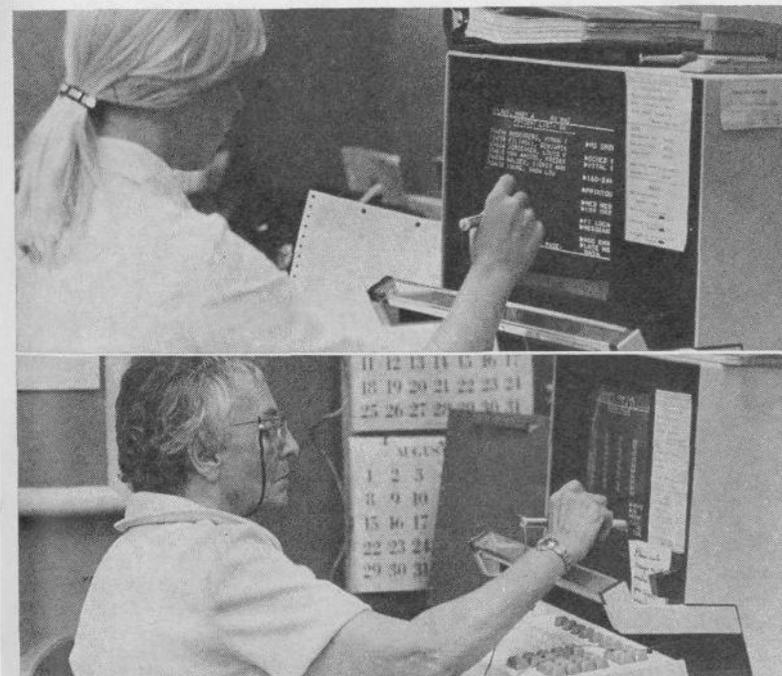
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Dr. Jordan has worked closely with many public and private agencies concerned with infectious disease prevention and research.

Author or co-author of numerous articles and books, many dealing with respiratory infections, Dr. Jordan served as president of the American Epidemiology Society from 1972 to 1973.

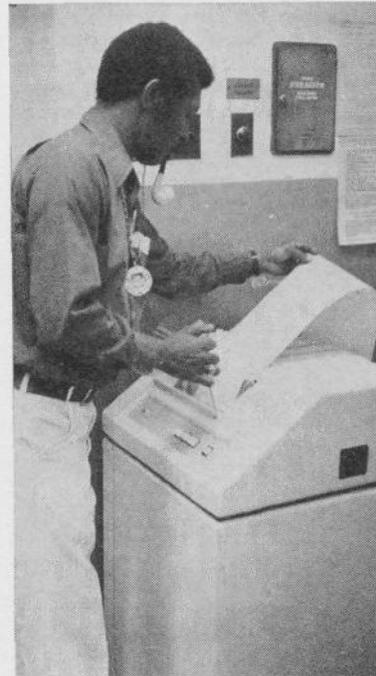
After receiving his M.D. from Harvard University in 1942, Dr. Jordan did postgraduate work at Boston City Hospital and Western Reserve University. He remained at Western Reserve as assistant professor of preventive medicine and of medicine until 1958.

From 1958 to 1967 he was professor and chairman of the department of preventive medicine and professor of medicine at the University of Virginia.



Mary Ann Gilroy (upper I), R.N. on CC nursing unit 5 West, uses a light pen at a Video Matrix Terminal display to report medications given. The Medical Information System may cut in half information handling time for nursing units. Mrs. Fox (lower I), 4 West unit clerk, says MIS makes her job easier by simplifying patient ap-

pointments. Mr. Macks, CC management analyst, shares Mrs. Fox's enthusiasm, adding "To the unit clerk, MIS is like changing from a wood stove to a microwave oven." John Black (r), 4 West patient care technician, examines a new patient care plan emerging from the MIS multi-printer.



Dr. Suzanne Hurd Named Assoc. Director, NHLBI Lung Diseases Division

Dr. Suzanne S. Hurd has been appointed associate director of the Division of Lung Diseases in the National Heart, Lung, and Blood Institute.

In her new post, Dr. Hurd will advise the Division director, Dr. Claude J. M. Lenfant, on research and training activities directed against lung diseases other than acute respiratory infections or lung cancer.

Responsibilities Listed

She will also evaluate the results of Institute programs concerned with chronic bronchitis; the prevention of emphysema; immune lung disorders, such as asthma; pulmonary fibrosis; and occupational lung disorders arising from chronic exposure to toxic dusts and fumes.

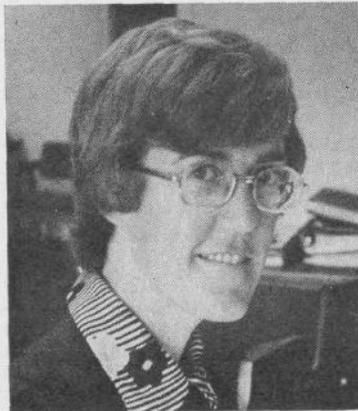
Collectively, these disorders—which affect some 14 million Americans—are a major cause of illness and disability, cause nearly 46,000 deaths a year, and cost the economy more than \$6 billion annually in lost productivity, lost wages, and medical expenses.

Background Detailed

A native of Elmira, N.Y., Dr. Hurd is a graduate of Bates College and received her M.S. in 1963 and her Ph.D. in 1967 from the University of Washington, Seattle.

After 2 years as a postdoctoral fellow at the University of California at Berkeley, she came to NIH as a Grants Associate in 1969.

In 1970, she joined the National Institute of Child Health and Human Development's Center for Population Research as a health scientist administrator. Later that year she moved to a similar position in NHLBI's Cardiac Diseases Branch.



Dr. Hurd has been with the NHLBI Division of Lung Diseases since 1972. Before accepting her present post, she served as chief of the Pathophysiology Branch and as acting chief of the Etiology Branch.

Medicinal Herb Plot Celebrates Traditions

As part of its Bicentennial celebration of the Nation's heritage, the National Library of Medicine has prepared a small medicinal herb garden. Representative specimens for medicinal use have been planted, including the familiar foxglove (*digitalis*), lavender, and poppy.

Of necessity, the Library's new medicinal garden is quite modest compared with the great university herb gardens of Europe which have been developing for centuries.

In laying out the NLM garden, the planners sought an appropriate compromise between the sometimes conflicting interests of aesthetics, adaptability to climate, and medicinal import.

In embarking on this project, the Library joins a centuries-long tradition of association among medicine, books, and botany. Through out history, man has looked to the plant kingdom for medicine to heal wounds, alleviate pain, and cure disease.

In the European tradition, the great herbals of the 16th through 19th centuries were as much textbooks of the healing arts as botanical compendia. The Library's History of Medicine Division houses a fine collection of these ancient and often beautiful books.

Today there is renewed interest in the subject of medicinal herbs. Although 20th century science has

HYPERTENSION

(Continued from Page 6)

of mothers who had toxemia during pregnancy or were found to have high blood pressure prior to pregnancy.

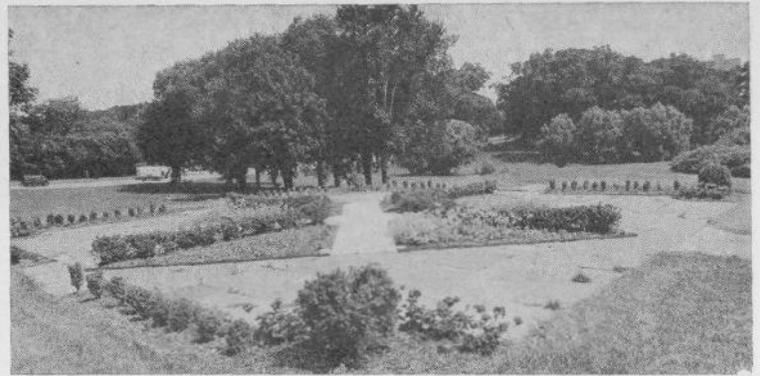
A large number of other precursors or correlates of blood pressure have been suggested as being important. These include diet, psychological characteristics, demographic factors, growth patterns, and hemodynamic, physiologic, and biochemical factors.

Aspects of all of these are included in several of the projects already mentioned, but four additional projects emphasize one or more of these specific areas.

Another grant proposes to survey 100 families with at least two children in which there is an untreated hypertensive subject, and 100 families in which there is no hypertension.

Immunological studies will be performed to test the hypothesis that some of the genetic and environmental causes of hypertension might act via immunological effects or mechanisms.

To encourage coordination of research designs and standardization of definitions, questionnaires, blood measurements, and other aspects affecting the various projects, the investigators will meet 3 times a year in Bethesda.



Located in front of the Library, the garden contains 16 plants with current or historical medicinal significance: sweet woodruff, lady's mantle, common thyme, lavender cotton, foxglove, oriental poppy, salvia, calendula, sweet william, Christmas rose, flowering periwinkle, purple basil, rosemary, clumped allium, primrose, and tobacco. Dr. James M. Stengle of the Lister Hill Center—an NLM staff member with an avid interest in growing things—has been advising Thomas J. Cook, chief of the NIH Grounds Maintenance and Landscaping Section, who designed and directed the planting.

discredited the medicinal properties folklore attributes to many plants, modern medicine is also rediscovering the healing powers of some plants which had been too readily dismissed or forgotten.

A recent Literature Search (LS

76-27, *Herbal medicine*), including 121 references entered into the MEDLINE data base between January 1974 and May 1976, is available without charge from the Library's Literature Search Program, Reference Section.

Carpool Registration in Progress NOW!

Carpool registration, which began yesterday, Aug. 9, will continue through Friday of this week from 9 a.m. to 4 p.m. in Conference Room 5, Bldg. 31. The initial registration dates are staggered to avoid congestion and to minimize inconvenience. Remaining registration is scheduled for:

Carpools Wishing to Park in Lot

| | |
|---------|---|
| Aug. 10 | 5A, 14C, 30B, 20C |
| Aug. 11 | 10H, 28A, 32A (north side), 20C |
| Aug. 12 | 13C, multi-level garage #6 (level 1), 20C |
| Aug. 13 | 31D, 41A, 20C |

Carpools for lots 4A, 14A, and 38B were registered on Aug. 9.

Those who miss the initial registration date may register in Conference Room 5, Bldg. 31, from 10 a.m. to 4 p.m. on Monday, Aug. 16. Thereafter, carpools may register in the Parking Office, Room B1-C-15, Bldg. 31, 8:30 a.m. to 4:45 p.m., Monday through Friday.

To register, all members of each carpool must appear as a group and present evidence of employment at NIH (NIH ID card) and ownership of vehicle (state registration card).

In order to save time and inconvenience, each carpool is advised to select a parking lot *before* appearing for registration.

N.C. Airport Fall Repairs To Cause Travel Changes

Effective Sept. 20 through Oct. 5, the jet runways at the Raleigh/Durham Airport will be closed for repairs. The only airline operating—using smaller equipment—will be Piedmont Airlines.

During that period, it will be necessary for all passengers to schedule flights on Piedmont Airlines, according to Helen M. Donovan, chief, Central Travel Section, Ext. 66876.



Current increased activity in influenza research has brought Dr. John R. La Montagne to the National Institute of Allergy and Infectious Diseases. Formerly an instructor in the microbiology department of the University of Pittsburgh School of Medicine, Dr. La Montagne will assist Dr. George Galasso, chief, Infectious Diseases Branch, NIAID, in administering contracts supporting research on the new swine flu vaccine and other aspects of influenza.