

the NIH Record

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

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NATIONAL INSTITUTES OF HEALTH

Largest Internat'l Index Of Medical Film Data Now on File at NMAC

The largest International Index of Medical Film Data in the world has recently been stored on the magnetic tape files of an Atlanta-based computer.

Compiled and organized by the National Library of Medicine's National Medical Audiovisual Center through its Acquisition, Distribution, and Reference Branch, the Index contains detailed descriptive and source information on 25,000 medical/health related audiovisuals.

Additional titles are fed into the collection at the rate of approximately 225 per month with increased emphasis now placed on new input.

Titles for the International Index come from film producers and distributors, members of the medical professions, schools of the health professions, and other sources from

(See *FILM INDEX*, Page 7)

Findings in Coronary Heart Disease Study May Alert Doctors to High Risk Patients

The findings in a large-scale, 9-year study on coronary heart disease, supported by the National Heart Institute, may be of considerable importance in alerting physicians to high risk patients.

The Health Insurance Plan of Greater New York began the study, in 1961, on factors affecting susceptibility to coronary heart disease, and death and disability from it, with a population of 100,000 persons, aged 25 to 64 years.

The population, from New York City and its environs, had been enrolled in the Plan for 2 years or more when the study began.

The study evaluated medical, physiological, occupational, demographical, social, and some personal characteristics for their impact on morbidity and mortality from coronary heart disease (CHD).

Incidence rates were determined for three CHD manifestations: definite myocardial infarction (MI), definite angina, and possible MI.

Diagnosis of definite angina was made if the patient met the study's criteria based on a medical history and if he had never previously sustained an MI. The category of possible MI approximated the diag-

(See *CORONARY STUDY*, Page 8)

ERG Aids in Diagnosing Some Retinal Disorders

Psychophysical and electrophysiological testing employed in a series of studies by scientists at the National Institute of Neurological Diseases and Stroke has yielded new information helpful in diagnosing and understanding various hereditary diseases of the retina.

ERG Aspects Examined

Temporal aspects of the electroretinogram (ERG) were examined in relation to chorioretinal degeneration and other disorders.

Also investigated were penetrance (the presence or absence of a trait in a person who carries the gene for it) in dominant retinitis pigmentosa, and rod and cone responses in sex-linked retinitis pigmentosa.

All phases of the investigation demonstrated again the value of the ERG as an investigative instrument.

Changes in the ERG responses

(See *ERG DIAGNOSIS*, Page 6)

Building 41, Designed for Special Virus Cancer Program, to Begin Full Operation

By Margaret George

The National Cancer Institute's new virus containment facility—designated as Building 41—will soon begin full-scale operation. Built at a cost of \$3.5 million, the self-contained building will house many of the research activities of the Institute's Special Virus-Cancer Program.

Designs were drawn up in the Fall of 1965 for a new type of laboratory environment that protects workers from exposure to infec-

tious agents and prevents these agents from escaping into the environment.

It will also protect costly experiments from cross-contamination. Sophisticated engineering systems are employed to meet these special needs and assure the utmost in safety.

Dr. Alfred Hellman, head of the Biohazards Control and Containment Section of the Viral Oncology area, will conduct research and head safety operations in Building 41.

Dr. Rauscher Directs Program

The program is under the general direction of Dr. Frank J. Rauscher, Jr., associate scientific director for Viral Oncology, NCI.

The three-story facility, consisting of laboratories on the first floor and engineering support equipment on the upper two stories, is divided into three work zones, labeled A, B, and C to denote increasing degrees of isolation. There is also an open bay with a high ceiling area for installing and testing modular laboratory units and other special equipment.

Movement of personnel and material between zones is strictly controlled. The most restricted zone is Zone C, containing the virus laboratories, animal holding rooms, and laboratory equipment especially designed for handling infectious agents.

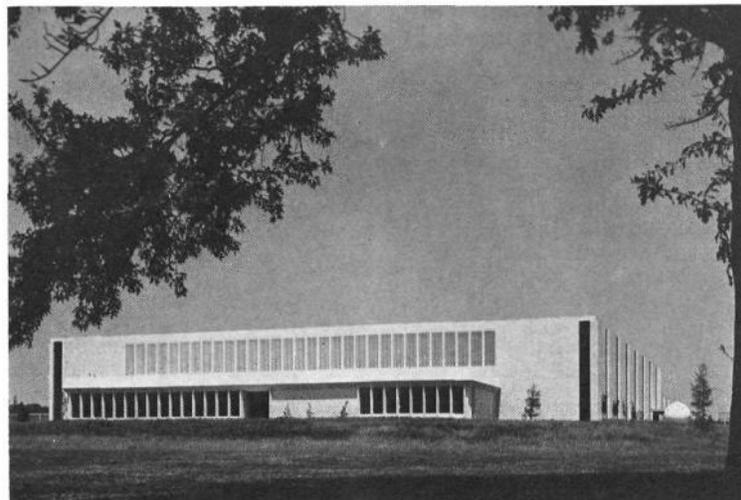
Experimental Work Performed

Experimental work with human tissues and virus-infected tissue cultures is performed in containment cabinets.

All materials leaving the area are sterilized. The walls, ceilings, and floors of Zone C are covered with seamless epoxy and polyurethane materials to permit the frequent use of decontaminating chemicals.

The B Zone, or "buffer area," is the laboratory support area. It consists of shipping and receiving

(See *VIRUS FACILITY*, Page 4)



The outside of Bldg. 41—NCI's new virus containment facility—is aesthetically pleasing. Inside, the sophisticated engineering systems make the building a model for conducting research with utmost safety.—Photos by Ralph Bredland.

the NIH Record

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NIH Record Office Bldg. 31, Rm. 2B-03. Phone: 49-62125

Editor Frances W. Davis
Assistant Editor Fay Leviero

Staff Correspondents

Tony Anastasi, DRS; Bari Attis, NINDS; Robert Avery, NCI; Lloyd Blevins, NICHD; Thomas Bowers, CC; Katie Broberg, NIAMD; Art Burnett, HMES; Helene Doying, DRR; Florence Foelak, BEMT/OD; Sue Hannon, NIDR; Marjorie Hoagland, NIMH; Elizabeth Y. James, NIEHS; John P. Kelly, NLM; Laura May Kress, DAHM; Betty Kuster, DCRT; Evelyn Lazzari, DN; Jan Logan, FIC; Carolyn Niblett, DDH; Marion Oakleaf, DRG; Faye Peterson, DBS; Richard Schroder, ADA; Anne Tisiker, NHI; Pat Vienna, NIAID; Wanda Wardell, NIGMS; Beverly Warran, DERF; Eleanor Wesolowski, DPM.

'After-Hours' Program Now Offers Over 85 College Level Courses

The Federal After-Hours Education Program is offering more than 85 college level courses this fall in 15 downtown Federal buildings.

This program—coordinated by the Civil Service Commission's Bureau of Training in cooperation with the College of General Studies, George Washington University—offers both graduate and undergraduate courses leading to B.S. or M.S. degrees.

Courses Expand Career

Those seeking self-improvement courses to expand their career may enroll in the after working hours courses as non-degree students.

Six courses are being offered for the first time: The Mind of the American Negro, Negro Life in American Cities Since 1860, Afro-American History, The Negro in American History, Natural Resources Economics, and Administration for Mental Care.

Registration for classes beginning the week of Sept. 22 will be held Sept. 15 and 16 from 10 a.m. to 3 p.m. in Conference Rooms A and B, Department of Commerce Building, 14th and Constitution Avenue, N.W.

Tuition Cost Given

Tuition is \$47 per semester hour. All courses are 3 semester hours.

Employees interested in taking job-related training should discuss the possibility of NIH support with their supervisors.

The NIH Office of Assistant Director for Training and Development, Office of Personnel Manage-

NIH Television, Radio Program Schedule

Television

NIH REPORTS

WRC, Channel 4
Sundays—4:55 p.m.

August 24

Dr. Ralph E. Johnson,
chief, Radiation Branch,
NCI
Subject: Radiation Treat-
ment of Cancer (Part 3)

August 31

Pre-empted for NBC Special

Radio

DISCUSSION: NIH

WGMS, AM-570—FM Stereo
103.5—Friday evenings—
About 9:15 p.m.

August 22

Dr. Robert I. Levy, head,
Section on Lipoproteins of
Molecular Disease Branch,
NHI
Subject: What Do High Lev-
els of Cholesterol Mean?

August 29

Dr. Martin M. Cummings,
Director, NLM
Subject: The National Li-
brary of Medicine

Both interviews take place dur-
ing intermission, Marlboro Festival
Concerts.

ment, Bldg. 31, Rm. B2B-07, has a
list of the courses offered.

For further information, contact
Robert W. Stewart, Jr., field repre-
sentative, College of General Stud-
ies, G.W.U., telephone 676-7018 or
7028, 7065, or 7069.

4 US Army Chaplains Complete 11-Month Program on Pastoral Education at CC



Flanked by Reverend LeRoy G. Kerney, chief, Clinical Center Department of Spiritual Ministry (l), and Reverend Robert B. Robey, training chaplain (r), the four Army chaplains who recently completed a training program in pastoral education are (l to r): Alister C. Anderson, Clinton E. Browne, John F. Brennan, and Robert B. Webb, Jr. The chaplains visited patients and became familiar with almost all of the CC departments.

Four U.S. Army chaplains completed training on Aug. 8, in an 11-month course on pastoral education. It was the first comprehensive course for this duration ever offered by the Clinical Center Department of Spiritual Ministry.

The clergymen, all Lieutenant Colonels, are: Alister C. Anderson, John F. Brennan, Clinton E. Browne, and Robert B. Webb, Jr.

Formerly, the department's only training program was an 11-week course for student seminarians. The new plan called for comprehensive training in all phases of spiritual ministry.

When the trainees reported, three of the four had just returned from front-line duty in Viet Nam—the fourth recently received his orders for Viet Nam following his CC assignment.

The extended length of the training program permitted the clergymen to visit and become familiar with almost all of the CC departments.

Pastoral Care Given

They also visited with patients and became familiar with situations in pastoral care that they might otherwise never have encountered. Department heads met with the clergymen and explained the functions and patient relationship of their respective departments.

Seminars held each month helped the clergymen understand the patient's attitudes toward his illness.

Dr. Harold A. Greenberg, psychiatrist, National Institute of Mental Health, lectured at several of the seminars and was available to the trainees for consultations.

Opportunities were scheduled for the chaplains to accompany physicians on medical rounds, observe open heart surgery, see educational films, and view an autopsy.

But the most important phase of the training was patient visitation. The chaplains were able to

become acquainted with the patients as individuals, understand their spiritual needs, and provide more pastoral care to them.

They also met with members of the patient's family, and gained experience in offering sympathetic guidance when needed.

Trainees See Patients

Comfort and assistance were proffered by the trainees to some patients and their families even after the patients had been discharged.

Because many of the clergymen's individual experiences were reported in seminars and meetings, much of this information on pastoral care in a research hospital will be used in future training programs.

Upon completing their training, the chaplains each were awarded a certificate. Also, each chaplain is now qualified for membership in the College of Chaplains of the American Protestant Hospital Association, or the National Association of Catholic Chaplains.

Host Farewell Dinner

On August 7, the four chaplains were hosts at a farewell dinner where they expressed their appreciation to the personnel of the Department of Spiritual Ministry.

The following day, the chaplains gave a "block party" and buffet luncheon for many of their CC friends and associates.

Because of its success Chaplain LeRoy G. Kerney, chief of the CC Department of Spiritual Ministry, plans to continue the training program.

'Know Your Heart' Radio Series Records Available To Employees at NIH

The National Heart Institute Information Office has a limited supply of recordings of the "Know Your Heart" radio series available to NIH employees.

Recorded on 12-inch platters, consisting of ten 2-minute spots, the records cover such subjects as: Hemophilia, Varicose Veins, Emphysema, Overweight, Heart Catheterization, Heart Valves, Strokes, Microsurgery, Hyperbaric Oxygenation, and Rheumatic Fever.

The series, prepared in simple, non-technical language, was designed to inform the public on heart and blood vessel research conducted and supported by NHI.

These recordings have been distributed throughout the world, in-



Jeannie Raines, NIAMD, receives the first platter of the NHI "Know Your Heart" radio series now being offered to NIH employees.

cluding 200 Armed Forces radio stations.

The programs were written and produced by Louis Cook, Heart Information Center, and narrated by Dr. John D. Turner (formerly with NHI).

NIH employees may obtain these records by contacting Mr. Cook, Bldg. 31, Rm. 6A-03, Ext. 64236, on a first come, first served basis.

Dr. Gordon M. Tomkins To Teach at U. of Calif.

Dr. Gordon M. Tomkins, National Institute of Arthritis and Metabolic Diseases, has been appointed professor of Biochemistry at the San Francisco Medical Center, University of California.

Dr. Tomkins, who was chief of NIAMD's Laboratory of Molecular Biology, came to the Institute in 1955 after 3 years with the National Heart Institute.

In 1966 he won the Biological Award of the Washington Academy of Sciences, more recently, Dr. Tomkins was honored by being chosen to deliver the 40th NIH Lecture.

Small Purchase Manual To Be Reissued in Sept.

A new issue of the *Small Purchase Procedures Manual* will be distributed in September by the Procurement Section, Supply Management Branch.

The revised manual includes new operating procedures and the most recent listing of suppliers available through the Telephone Charge Order system.

If copies are not received by Oct. 1, contact the Procurement Section, Ext. 65321.

NLM Library Associates Complete Study Program

Four National Library of Medicine library associates who recently completed a year's training program in medical library science were presented with certificates in the NLM Billings Lounge.

Dr. Joseph Leiter, NLM associate director for Library Operations, awarded the certificates to Howertine L. Duncan, Kay Mayfield, Sheldon Kotzin, and Mahesh K. Bhatt.

After the year of academic study and specialized work is completed, library associates may apply for a career-conditional appointment at NLM or seek affiliation with other medical libraries.

Three library associates will stay with NLM. They are: Mrs. Duncan, Municipal University of Omaha, 1967, M.L.S., University of Oklahoma, 1968, Reference Services Division; Miss Mayfield, Wellesley College, 1967, M.A. in Library Science, University of Chicago, 1968, History of Medicine Division, and Mr. Kotzin, University of Maryland, 1964, M.L.S., Indiana University, 1968, Technical Services Division.

Mr. Bhatt, who received his education in India graduated from Holkar College in 1956, has a Diploma in Library Science from Vik-



NLM trainees receive their certificates at a special ceremony in the Billings Lounge. Left to right: Mahesh K. Bhatt, Dr. Leiter, Kay Mayfield, Carol Long, NLM training officer; Sheldon Kotzin, and Howertine L. Duncan.

NIAID Produces Movies On Spotted Fever, Shot In Montana Near RML

Two movies, produced by the National Institute of Allergy and Infectious Diseases, depict the research battle against Rocky Mountain Spotted Fever. They are available for loan to civic and educational groups and television stations.

One film, "The Story of Rocky Mountain Spotted Fever," shows the early efforts to develop a vaccine to control this once often-fatal disease.

It was filmed near NIAID's Rocky Mountain Laboratory in Montana where most of the pioneer research was done.

The second film, "Life History of the Wood Tick," details the 2-year life span of this disease-carrying tick, a vector of Rocky Mountain spotted fever.

The life cycle is similar to that of the dog tick, found in mid-Atlantic and southeastern states, and the Lone Star tick, found in southwestern states.

Films May Be Borrowed

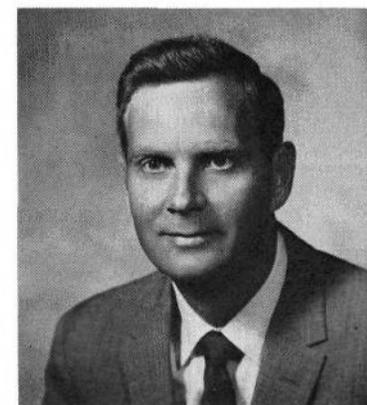
This movie was also filmed in Montana. Both 16 mm films are in color and sound.

To borrow the 18-minute film, "Life History of the Wood Tick" (M-1716-X) and the 29-minute "Story of Rocky Mountain Spotted Fever" (M-1715-X), write: Distributor, National Medical Audiovisual Center Annex, Chamblee, Georgia 30005.

Prints may be purchased from the National Archives and Records Service, General Services Administration, Washington, D.C. 20408, Attention: Government Film Sales. Film numbers must be included in all requests.

ram University. He will return to India and work as librarian in charge of government documents in the National Medical Library in New Delhi.

Dr. Campbell Appointed To DDH Post in Ky.



Dr. Campbell was recently elected president of the Southern Branch of the American Public Health Association.

Dr. Edward M. Campbell, former chief of the Community Programs Branch, Division of Dental Health, BEMT, has been appointed special assistant for Manpower Development at the DDH Manpower Development Center in Louisville, Ky.

Dr. Campbell will help develop and implement short courses in the Dental Auxiliary Utilization Program for dental directors and dental auxiliary supervisors.

Under his direction, dental schools in certain states will be offered the opportunity to move into the expanded functions program.

Degrees Noted

Dr. Campbell received his dental degree from the University of Tennessee in 1955 and a Master of Public Health degree from the University of North Carolina in 1962. He was commissioned in the Public Health Service in 1955.

Dr. Campbell is a diplomate of the American Board of Dental Public Health.

Recently he was elected president of the Southern Branch of the American Public Health Association.

NIGMS Awards Grants to Train Students for Academic Careers

The National Institute of General Medical Sciences has awarded grants to institutions for training young men and women for teaching posts and scientific research.

Grants for surgeon-teacher training were given to the University of Illinois College of Medicine, the University of California at San Diego-La Jolla, Beth Israel Hospital in Boston, and the University of Virginia.

Two universities received grants for pharmacological scientist-teacher training. They are: the University of California at Los Angeles and Baylor University's College of Medicine.

Blood Bank at CC Reports 281 Units Received in July

The Clinical Center Blood Bank reports that 281 units of blood were received from NIH donors in July, and CC patients received 1,755 units of blood.

Nine donors achieved a special status. Bernard E. Burr, NCI, attained the 4-gallon mark; Kirk Weaver, NIDR, reached the 3-gallon mark, and Leonard Aberbach, DRS, and Robert Harr, NIDR, reached the 2-gallon mark.

Joining the Gallon Donor Club were: Judith R. Ireland, NIMH; Daniel Kenney, OD; Jerome Levine, ECA; A. Robert Polcari, CC, and Dr. John Venditti, NCI.

DPM Project to Analyze Suburban Health Care

How has rapid population growth in our Nation's suburbs affected the quality of available health care? How do the economic and other characteristics of suburban groups affect the demand for health care?

Under a \$134,000, 2-year contract with St. Louis University, in cooperation with the St. Louis County Health Department, the Division of Physician Manpower, BEMT, hopes to have these and other questions answered in order to improve physician activities and patient care services.

Dr. Frank W. McKee, DPM Director, noted that "Suburban America represents many health problems. Some are due to the rapid population growth which has far out-distanced available services



Dr. Martin M. Cummings, NLM Director, congratulates Kathryn D. Sugg, personnel clerk, NLM Office of Administrative Management, on winning both an Accomplishment Award and an Employee Suggestion Award. Mrs. Sugg was cited for "her outstanding job in organizing" the Personnel Office's highly efficient clerical processes. Her winning suggestion resulted in establishment of a car pool locator system for the library.

Bin Stores and Property Utilization Warehouse of SMB Merge Operations

The Supply Management Branch will consolidate its Bin Stores and bulk warehousing operations at the Danac Bldg. with no disruption of service to NIH ordering offices.

Consolidation plans also include relocation of the Property Utilization Warehouse, presently in the Danac Bldg., Rockville, Md., to Bldg. 13 on the NIH reservation.

Increases Line Items

The SMB is responding to demands for emergency supplies by: 1) increasing the number of line items carried in Self-Service Stores #1 (Bldg. 31) and #2 (Westwood Bldg.); 2) opening a Self-Service Store in the Bldg. 35 basement, which will include laboratory items, and 3) continuing the SMB Emergency Telephone Ordering service available for scientific or patient-care supplies.

Donald R. Watson, chief of SMB, said extensive and detailed arrangements for the Warehouse move, scheduled to be completed by Sept. 28, has precluded any interruption to service.

such as transportation, neighborhood clinics, hospitals and emergency medical care.

"Many small pockets of poverty exist amidst suburban affluence. Because of the Nation's shortage of physicians, it is necessary to delineate the various demands for health services in order to determine how they can best be met."

Co-directors of the project are Dr. Mildred K. Kaufman, Director of Vital Statistics, and Robert M. Taylor, associate director of Research and Development, both in the St. Louis County Health Department.

Pigs at NIH Animal Farm Used in ECA Eye Study

Swine maintained at the NIH farm in Poolesville, Md., are being used for eye experiments by the Bureau of Radiological Health's Division of Biological Effects, Environmental Control Administration.

Dr. James N. Shively of the Division's Pathological Studies Section, said pigs were chosen for experiments because, except for sub-human primates, their eyes are most like eyes of humans.

The eyes of the swine are being irradiated to compare possible eye effects from low energy X-rays, similar in energy to X-ray emitted by color television receivers, with effects from high energy X-rays.

Dr. Shively further explained that the eye is being studied because it is considered by most researchers to be the organ most susceptible to low energy X-rays.



Scientists in Bldg. 41 use the records room to do all their paper work and reading. Personal desks and work areas are not allowed in the laboratories as they pose problems during decontamination procedures.

VIRUS FACILITY

(Continued from Page 1)

areas, a liquid nitrogen storage room, a 4° C. cold storage area, glassware, animal cage and rack washing areas, and first aid area.

In addition, an electron microscopy suite, an animal breeding area, and a central photography laboratory are located in the B Zone.

The photography laboratory is used to photograph specimens which cannot be carried out of the building.

The A Zone is the administrative area. Street clothes are worn here, in contrast to the special color-coded clothing worn by personnel in the B and C Zones.

Women Wear Culottes

Laboratory workers wear laboratory coats over their regulation clothing of short-sleeved shirts, and trousers for men—culottes for women.

They must change into fresh clothing, provided in the change rooms, before moving from one zone to another. In addition, workers in the animal rooms must shower before leaving the area.

An elaborate air-barrier system also separates the three zones. Air pressure, more negative in areas containing potentially hazardous materials, effectively prevents their escape.

Special air locks assure that the pressure differential is maintained between zones.

The facility maintains its own biowaste sterilization plant.

All waste material is heated to 300° F. for 10 minutes before it is released into the NIH sewage system.

Air entering and leaving the building is filtered through absolute filters. This prevents both the escape of potentially infectious agents and the contamination of research materials with outside agents.

A security system is in effect

throughout the building. Each employee has an identification card with his photograph which must be presented to a guard for admission.

A TV monitoring system will be installed. This will not only increase security, but will enable a technician inside the C Zone to consult a scientist in another zone or show him a specimen.

Incorporates Advanced Technology

Although the new facility incorporates the most advanced biohazard technology to date, the open bay area has been reserved to develop new ideas in design and biohazard detection.

The concept for construction of modular laboratories and assembling them in an open bay area originated with Dr. Kenneth M. Endicott, NCI Director. This may very well be the way future facilities will be more speedily and economically constructed.

The facility is planned for 120 employees. There are 104 scientists and technicians, 11 service personnel, and 5 secretaries.

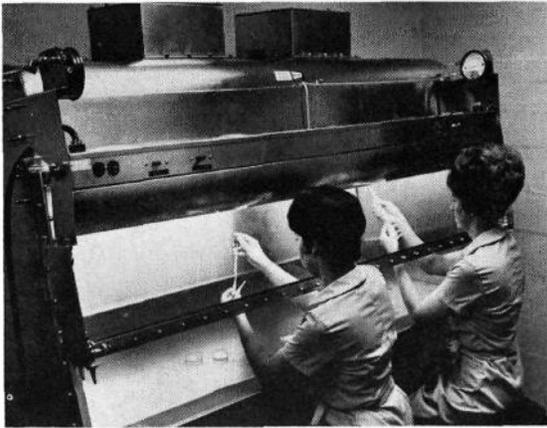
Among the scientists of NCI's Viral Leukemia and Lymphoma Branch who will conduct research in the building under the leadership of Dr. John B. Moloney, chief of the Branch, are: Dr. Timothy E. O'Connor, head of the Molecular Virology Section; Dr. Mary A. Fink, head of the Immunology Section, and Dr. Nelson A. Wivel, head of the Ultrastructural Studies Section.

Other Scientists Listed

Dr. W. Ray Bryan, NCI's scientific coordinator for Viral Oncology, and Dr. Robert A. Manaker, head of the Microbiology Section, Viral Biology Branch, will also conduct research in the new building.

William Emmett Barkley of the Biohazards Control and Containment Section is in charge of the facility's bioengineering operations.

(See NCI's BUILDING, Page 5)



Work involving viral materials is done under special minimum turbulence airflow hoods equipped with high efficiency air filters. This prevents any microbial agents from entering the area or escaping into the general laboratory environment.

... inside NCI's virus containment building



Laboratory work benches are mobile, so that work areas can be moved and rearranged with a minimum of difficulty.



The doors on this large autoclave are electronically controlled so that only one door may be opened at a time. These autoclaves serve as barriers between zones and sterilize material passing from one zone to another.



Double-doored air locks serve to separate different pressure zones. Persons passing through must wait for the first door to close before opening the second.



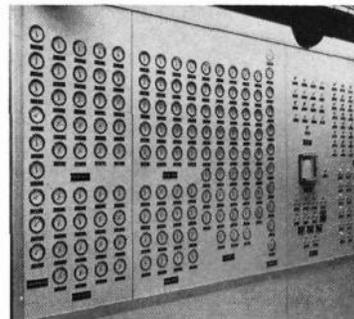
Technicians model the official Bldg. 41 laboratory uniforms. Women wear a lab coat (left) over culottes (middle), while men wear short sleeved shirts and trousers, also covered by a lab coat. B Zone uniforms are green; C Zone uniforms, blue.



A secretary in the reception area pages a scientist through the intercom system. This system is the primary means of communication within Bldg. 41. Telephones are limited because they cannot withstand the rigorous decontamination procedures.



Small materials, such as notebooks, are sent through ultraviolet pass boxes before being introduced to the containment laboratories.



The round dials on this large panel in the control area automatically register the temperature and humidity in each laboratory room. The small lights on the right record the functioning of the air pressure and filter exhaust system.



"Dip tanks" located on the doors of animal rooms contain a sterilizing solution. Animal materials leaving the rooms are first enclosed in a plastic container and then passed through the "dip tank."

Good Fortune Helps Crew of the 'Melody' Meet Challenge of Sailing to Bermuda

Memories of playful porpoises leaving phosphorescent trails in the dark of the moon—viewed from the deck of a sailing vessel on its way to Bermuda—provide refreshing thought for Vern Taylor when he is not immersed in his duties as chief of the Photography Section.

"A successful trip should have no major calamities although this does depend on good fortune to a considerable degree," said Mr. Taylor of his cruise to Bermuda and its surrounding islands on his sailboat, "Melody."

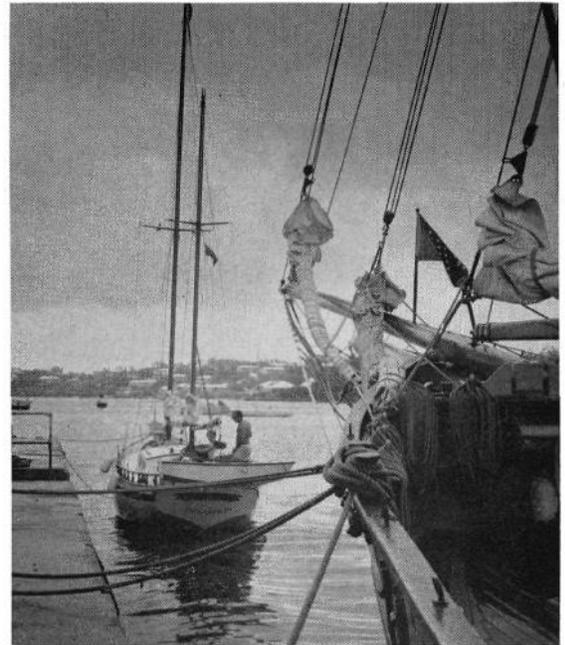
An analogy may be drawn between the trip to the moon by our astronauts and Vern Taylor's voyage—for both, careful preparation was the key to success. He admits that he spent all of his spare time this past spring making certain that "everything was up to snuff."

The six-man crew, three men and three women, included Harvey Walters, HSMHA, Don Higdon (a former NIH employee), Joan Graham, and Mr. Taylor's two daughters, Sandy and Suzie.

His pride in his daughters' seamanship was evident as he revealed that he had taught them most of



Vern Taylor has warm praise for the "Melody" crew (l to r): his daughters, Suzie and Sandy, Vern, Joan Graham, Harvey Walters, and Don Higdon.



The 35-foot sailboat "Melody," viewed from a schooner in the Hamilton (Bermuda) harbor, is a long way from its home port in Annapolis, Md.



During part of the trip, the ketch was reefed down to weather the unusually high seas.

what they know about sailing. He further acknowledged (some consider this heresy) that women are as good, or sometimes, even better sailors than men.

On the average, two boats a day sail into St. George's harbor at Bermuda during the short period the weather and sea permit.

Although Mr. Taylor claims a voyage by sailboat can be relatively safe, he insists that it must be well organized and, "like driving on the Beltway, any mistake is ours."

To Vern Taylor, the trip was a challenge—both because of the human element and the intricacies of navigation. After such an exciting experience, he believes that one cannot help but have a feeling of humility, based on a deep respect

for the sea.

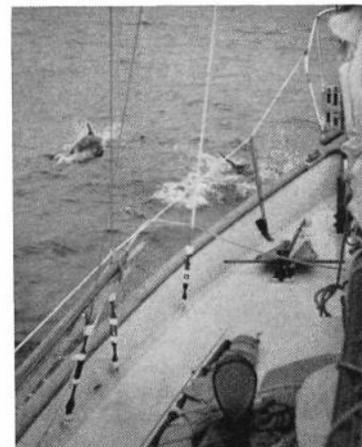
The unusual weather pattern for this time of year resulted in rough 8-foot and higher seas, but the 35-foot ketch was reefed down for part of the trip and had no difficulties.

Celestial navigation and a radio directional finder were used although the "Melody" did not have a ship-to-shore radio. The boat has a diesel engine and is equipped with an icebox and stove in its tiny galley. Also, there are bunk boards to hold the occupants in the bunks in rough weather.

To Mr. Taylor, one of the most rewarding features of his trip was the view of the ocean "after dark, when another world begins."

He is a charter member of the NIH Sailing Club, which includes a number of very fine sailors, according to Mr. Taylor.

His modesty again comes to the



Frolicking porpoises were frequent visitors during the voyage to Bermuda.

fore when he mentions, "Did you know about Dr. George Williams, of the Clinical Center—now there's a trip—he's sailing to the Caribbean and through the Panama Canal to the West Coast."

Well, whenever there is a pause in his fast-paced office, Vern Taylor can swing his chair around and plan his next trip on the pilot chart behind his desk.

ERG DIAGNOSIS

(Continued from Page 1)

were studied in patients with large chorioretinal scars and certain hereditary retinal diseases. The investigators found that amplitude and implicit time of the ERG responses behave independently of one another.

Chorioretinal destruction produces a reduction in amplitude, but no changes in implicit time. Some degenerations produce changes in implicit time before changes in amplitude.

The delay in implicit time can best be explained by an abnormality of the rod and/or cone receptor system involving the entire retina.

These findings may provide a new parameter for understanding and classifying those hereditary diseases that lead to reduction in amplitude accompanied by change in implicit time.

In an effort to establish the genetic pattern of reduced penetrance in cases of dominantly inherited retinitis pigmentosa, a family with this problem was studied.

These patients transmitted the gene defect to their offspring, but were themselves clinically normal

Proceedings of Meeting Published by NIAMD

Proceedings of the second annual meeting of Artificial Kidney Program contractors were recently published by the National Institute of Arthritis and Metabolic Diseases.

The sessions, held last January, were attended by contractors, consultants and staff members of NIAMD's Artificial Kidney Program.

The Proceedings will be distributed to participants who attended the meeting and to members of the American Association for Artificial Internal Organs.

and beyond the age of risk for the disease.

Changes in the ERG revealed a unique abnormality not hitherto reported. The ERG demonstrated rod responses reduced in amplitude and delayed in implicit time at an early stage similar to those seen in dominant retinitis pigmentosa with complete penetrance.

Cone responses were also found to be delayed in implicit time even when response amplitudes are normal. This cone ERG abnormality has not been found in the common type of dominant retinitis pigmentosa with complete penetrance.

These three studies by Dr. Eliot L. Berson, Department of Ophthalmology, Harvard Medical School, Dr. Peter Gouras, Dr. Ralph D. Gunkel, Dr. Ntinios C. Myrianthopoulos, and Mary Hoff, Ophthalmology Branch, NINDS, were reported in *Archives of Ophthalmology*.

Lewis D. Brown Named Deputy Director, OAS

Lewis D. Brown was recently named deputy director, Office of Administrative Services, Mr. Brown had been with Supply Management Branch since 1961.

Before joining NIH he was with the Department of Interior in the Geological Survey.

While serving there as property management officer, Mr. Brown designed and installed one of the first automated property management systems in government. Later, he was named chief distribution officer for all USGS maps and publications.

Mr. Brown received his B.A. degree in Business Administration from George Washington University.

He is a charter member of the University Chapter of the Society for Advancement of Management.



While serving with the Geological Survey, Mr. Brown designed one of the first automated property management systems in government.

A Bibliography on Drug Interactions Will Assist Physician, Researcher

A contract to develop a comprehensive *Retrospective Drug Interactions Bibliography* has been initiated by the National Library of Medicine with Paul de Haen, Inc., New York.

The study will also develop a bibliographic file of literature from papers, reports, reviews and editorials on drug interaction produced between Jan. 1, 1938 and Dec. 31, 1969, according to Dr. Arthur A. Wykes, senior drug literature specialist in NLM's Drug Literature Program of Specialized Information.

This research is being undertaken because of the profound influence drug interactions have on the safety and effectiveness of drugs.

Although literature on drug interactions is substantial, so far a systematic search of source material and an organized analysis of the original data and tabulation by

NHI Funded Study Shows Coronary More Severe In Those Under 30 Years

Although clinically overt coronary heart disease is not common among men in their twenties, those under 30 who develop clinical coronary heart disease are likely to experience more severe clinical manifestations. They are also more likely to succumb suddenly or within 24 hours of a first heart attack than are men who develop clinical CHD in their 40's or 50's.

These findings are reported from a 15-year follow-up study by the National Academy of Sciences with research grant and contract support from the National Heart Institute.

According to Dr. William J. Zuckel, associate director for Epidemiology and Biometry, NHI, the large number of very young subjects available from this study gives a clearer picture of the natural history of coronary heart disease at a young age than did previous studies.

Half Under Age 40

Of 2,234 subjects, 50 percent were under the age of 40, making this one of the few studies reported on the long-term prognosis of men who have experienced myocardial infarction or angina pectoris before the age of 40.

The study population was a roster of male Army personnel admitted to Army hospitals for their first CHD episode during a baseline period from July 1943 through December 1944.

The requirement for medical examination on entry into the service provided reasonable assurance of the absence of major concomitant disease, which might have altered the natural history of the diagnosed coronary disease. This period preceded the general availability of new treatment measures so that the course of the disease was unlikely to have been altered by special measures for intervention.

Follow-up opportunities were excellent because documented deaths among World War II veterans, based on records of the Veterans Administration, are known to be more than 98 percent complete. Because one-third of the observed deaths occurred during Army service, and these are completely reported, the maximum error of death ascertainment for the 15-year follow-up is probably less than 2 percent.

The findings from this study are reported in the current *American Heart Journal*.

computer methods have been lacking.

When published, the study will benefit laboratory scientists, physicians, and manufacturers.

FILM INDEX

(Continued from Page 1)

around the globe.

Each year, these titles are verified, checked for detailed acquisition information and are then fed onto computer tapes with cross indexes and references for more efficient categorization.

Two cross-reference files allow comprehensive retrieval of information from the file by any combination of subject categories and sources.

The conversion of the Index to computer, which required a year to complete, has given NMAC ability to respond to the ever increasing demands for information on pertinent audiovisual media.

Index Information Available

Information from the Index in a number of formats—catalogs, special film listings, and special computer subject searches—may be had on request to NMAC's Reference Section. The material is available to researchers, teachers, clinical practitioners and students.

As an example of current interest, in May 1969, 261 special reference searches were provided from the Index, as well as major film listings on mental health, addictions, nursing and patient care, and the Film Reference Guide for Medicine and Allied Sciences.

Earlier in the fiscal year, some 6,500 references were furnished in the form of individual citations and subject area research.

Among subjects listed in the Index are the cardiovascular system, chronic diseases, child care and maternal welfare, cytology and tissue culture, forensic medicine, microbiology (bacteriology), microbiology (mycology), epidemiology and control, nutrition, psychiatry

Liberal Arts Colleges To Play Important Role In Medical Education

Liberal arts colleges may play an important role in continuing medical education in the United States—especially in areas isolated from medical education centers.

Methods of accomplishing this will be explored by the Division of Physician Manpower, Bureau of Health Professions Education and Manpower Training, under a one year contract with Gannon College in Erie, Pa.

Some 250 physicians and osteopaths in the Erie area have indicated they wish to upgrade their medical education.

Members of the Erie County Medical Society and the Pennsylvania Osteopathic Association have asked Gannon College to administer a comprehensive continuing education program.

Gannon College will make available its resources, including faculty, and library and medical plant facilities, under the program.

The college will coordinate the activities of agencies and individuals who are conducting education programs. Medical societies, medical education centers and directors, and hospitals in the Erie area will be included.

Dr. Joseph R. Scottino, Director, Graduate Programs, Gannon College, will be project director.

and psychology, and numerous others.

Requests for searches from the International Index should be addressed to the NLM National Medical Audiovisual Center (Annex), 2111 Plaster Bridge Road, N.E., Atlanta, Ga. 30324.



Surg. Gen. William H. Stewart and Mrs. Stewart (center) greet NIH Deputy Director John F. Sherman and Mrs. Sherman and many other friends and associates from NIH and PHS, at a recent farewell party honoring Dr. Stewart on his retirement from the Public Health Service. Dr. Stewart was named Director of the National Heart Institute on Aug. 1, 1965, and served in that post before his appointment as PHS Surgeon General. Dr. Stewart will become Chancellor of Louisiana State University Medical Center in New Orleans.

NIH Scientists Develop New Culture to Detect Murine Leukemia Virus

A group of NIH scientists have developed new tissue culture methods that detect naturally occurring murine leukemia virus.

A number of murine leukemia virus (MuLV) strains have been successfully grown in tissue culture for some years. While these laboratory strains of MuLV have been under investigation, study of naturally occurring mouse leukemias and of Gross passage A virus—a laboratory model—have been severely hampered by the insensitivity of isolation techniques.

Procedure Uses Rat Antisera

The isolation procedure originally developed for laboratory MuLV strains made use of rat antisera in complement fixation (CF) reactions to detect antigen shared by all known MuLV strains.

CF reactions were used as the endpoint in a cell culture test for detection, titration, and neutralization.

In this study, the investigators found that the insensitivity of the CF method to naturally occurring (field) strains and to Gross passage A virus was attributable to two factors: 1) these leukemia viruses have a host range which is restricted to certain strains of mice and 2) the rat antisera used in CF testing lacked sufficient CF group reactivity to the virus field strains.

Strain Sensitive to Infection

It was found that these factors could be overcome by using tissue cultures from NIH strain Swiss mice which were shown to be more sensitive to infection than were the Balb/c mouse embryos previously used.

It was also found that immune sera obtained from rats bearing

Unique Era Ends as Grants History Card Unit Pulls Up Tracks and Moves



As it was

The tracks have been pulled up to end a unique era in the history of the Division of Research Grants.

With the recent move of the Division's History Card Unit to the NIH Office of Financial Management came the demise of mobile desk and chair units.

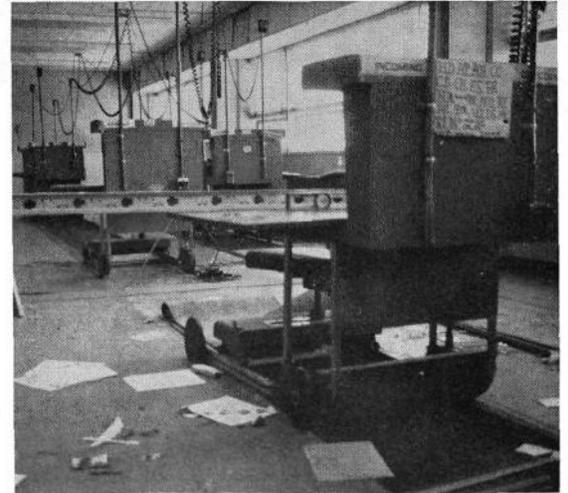
Grants clerks once moved along

transplanted tumors induced by MuLV or by the Moloney Sarcoma Virus were reactive with a broader range of antigens—including field strains and Gross passage A virus antigen.

163 Virus Strains Isolated

Using the new procedure 163 strains of mouse leukemia virus from 11 inbred mouse strains were isolated.

These findings were reported in the *Journal of Virology* by Drs. Janet W. Hartley, Wallace P. Rowe, Worth I. Capps, National Institute of Allergy and Infectious Diseases, and Dr. Robert J. Huebner, National Cancer Institute.



... and now

tracks that ran beside two long tubs containing nearly 100,000 file cards. The mobile desk units were an unusual sight for visitors.

The cards include financial data, study sections, beginning and termination dates of grants, grant titles, and names of institutions

and principal investigators.

The History Card Unit will continue to be used as a source of information about all NIH grants, but now, rather than moving along the tracks, grants clerks will be walking back and forth from desks as they answer inquiries.

CORONARY STUDY

(Continued from Page 1)

nosis of coronary insufficiency in other investigations.

Principal findings of the study were:

- Cigarette smoking was found to double the risk of angina among men. This finding, not reported by similar studies, may indicate that tobacco, in addition to acting as a "trigger" factor for MI, may also accelerate the underlying disease process.

Some Attacks Rapidly Fatal

- Men had an annual incidence rate of first MI that was five times the rate among women. One third of these attacks were rapidly fatal—that is, death occurred within 48 hours of onset—whether the victims were male or female.

- Among male cigarette smokers the risk of sustaining a first MI was twice that of non-smokers. Men who had discontinued smoking within the previous 5 years had rates similar to those who had never smoked.

- Physical inactivity among men was associated with marked elevation in risk of sustaining a first MI. In addition, the likelihood that a first MI would be rapidly fatal was much greater among sedentary men than among those who were more active.

- Incidence rates among white men were twice as high for first MI and one and one-half times as high for angina as among non-white men.

Jewish men experienced somewhat higher rates than white Pro-

Latest Participants in NIH Visiting Scientists Program Listed Here

7/20—Dr. Henry D. Lederer, U.S.A., National Center of Mental Health Services. Sponsor: Dr. Sherman N. Kieffer, NIMH, Barlow Bldg., Rm. 14E16.

7/23—Dr. Hans-Hermann Kiltz, Germany, Section on Molecular Structure. Sponsor: Dr. Erhard Gross, NICHD, Bldg. 10, Rm. 5B11.

8/1—Dr. Manuchari S. Ebadi, Iran, Laboratory of Preclinical Pharmacology. Sponsor: Dr. Erminio Costa, NIMH, St. Elizabeths Hospital, Washington, D.C.

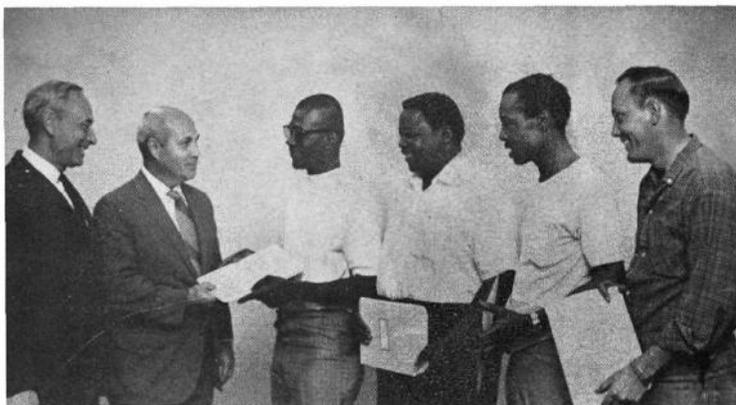
8/1—Dr. Claude V. Perrier, Switzerland, Digestive and Hereditary Diseases Branch. Sponsor: Dr. Leonard Laster, NIAMD, Bldg. 10, Rm. 9D11.

testant and Catholics. CHD rates among Jewish women, however, were not markedly different from those found for non-Jewish women.

- Broad occupational class, place of birth, educational attainment and marital status did not show important differences in CHD rates among their various subgroups for either men or women.

An exception was work status among women—those who did not work during the preceding 5 years had an MI rate twice as high as the rate for working women, but the two groups did not differ in their angina and possible MI rates.

This work was published in a recent issue of the *American Journal of Public Health*.



Monette Ross, chief, Shops Section, Plant Engineering Branch, Office of Engineering Services, and Stanley Oliver, chief, PEB, recently presented a Group Superior Accomplishment Award to Ralph Carry, Eulis Knox, Zack Hayes, Marlin Crabtree, and Cecil Gilliam (not pictured), Transportation Unit, Shops Section, PEB. They were cited for "willingness to accept an additional workload, initiative in assisting others, endurance to the task, and cooperation in getting the job done."