

the



# Record

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

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NATIONAL INSTITUTES OF HEALTH

### Tonight at 8:15, Dr. Gajdusek Delivers R. E. Dyer Lecture

Tonight (Wednesday, Nov. 6), Dr. D. Carleton Gajdusek will deliver the 24th Annual R. E. Dyer Lecture at 8:15 p.m. in the Masur Auditorium.

Dr. Gajdusek, who is chief of the Laboratory of Central Nervous System Studies, NINDS, will talk on his research of the disease—kuru. He began his studies in the mountainous region of New Guinea in 1956.

The word kuru means "shivering" in the New Guinean Fore language.

### Dr. Reuben Andres Given Gerontology Soc. Prize

Dr. Reuben Andres, National Institute of Child Health and Human Development, is the 1974 winner of the Gerontological Society's prestigious Robert W. Kleemeier Award.

Dr. Andres is assistant chief of the Gerontology Research Center, and chief of GRC's Clinical Physiology Branch.

Named in memory of the society's 21st president, the award is given each year to a member who has made outstanding contributions to aging research. Dr. Andres received the honor at the society's 27th annual meeting held recently in Portland, Ore.

He was recognized for his commitment to clinical research on

(See DR. ANDRES, Page 6)



In 1973, Dr. Andres was given a DHEW Superior Service Award for his research contributions.

### Study on Patients With CVH Deficiency Helps to Explain Body's Immunization

National Cancer Program scientists have discovered the cause of a rare immune-deficiency disease that sometimes leads to cancer, and in so doing have uncovered new information on the workings of the body's system of defenses against many diseases.

For several years, Dr. Thomas A. Waldmann and his colleagues in the National Cancer Institute have studied patients, mostly children, with a life-threatening disease, common variable hypogammaglobulinemia, characterized by the patient's inability to make protective antibodies.

Fifty patients with CVH have been treated in the NIH Clinical Center. All had recurrent severe infections, particularly pneumonia, and other lung diseases. Arthritis develops in 30 percent and cancer in 10 percent.

The investigators studied T-cells, white blood cells that originate in the bone marrow and migrate through the thymus (T) gland before becoming active immune agents (see illustration on page 8).

#### Find Excessive T-cells

Experiments showed that CVH patients' immune defect was due to an excess of "suppressor" T-lymphocytes.

Another subgroup, "helper" T-cells, assists mature B-cells in antibody production. Excessive "suppressor" T-cells in CVH patients prevent their B-cells from maturing into fully competent antibody producing B-cells, Dr. Waldmann concluded. This defect makes CVH patients vulnerable to infections and other diseases.

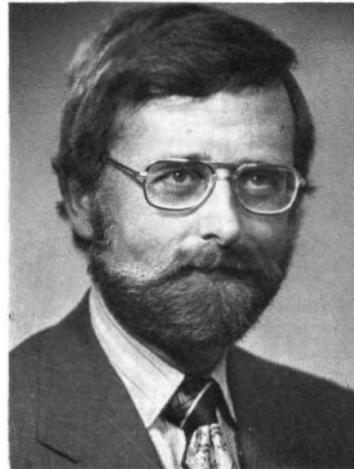
The scientists grew laboratory cultures of lymphocytes from 13 patients with CVH and found that, despite chemical stimulation, they produced from 16 to 37 times fewer antibodies of each of 3 important classes (IgG, IgA, and IgM) than lymphocytes from normal individuals under the same conditions.

Moreover, during repeated cell culture tests, B-cells from normal persons produced 8 to 10 times fewer antibodies when lymphocytes from CVH patients were added to the cell cultures.

Co-culturing of normal cells from unrelated normal individuals did not result in any significant

(Continued on Page 8)

### Dr. Paul Schmidt Wins Cooley Memorial Award



Dr. Schmidt, chief of the NIH Blood Bank since 1965, is also clinical professor of pathology at the Georgetown University School of Medicine.

Dr. Paul J. Schmidt, CC Blood Bank Chief, will receive the Emily Cooley Memorial Award and deliver the Cooley Lecture at the American Association of Blood Banks meeting Nov. 11, in Anaheim, Calif.

The award is presented annually to recognize scientists for outstanding contributions in blood banking and blood transfusions.

Dr. Schmidt has conducted extensive research in clinical pathology and blood transfusions. His widely published work has been applied to practical hospital blood banking and transfusion procedures.

His investigations on posttransfusion hepatitis over the past 10 years opened the path for definitive studies on the roles of commercial donors and of hepatitis antigens in that disease.

His lecture, Transfusions in Historical Perspective, will trace the

(See DR. SCHMIDT, Page 8)

### Effectiveness of Vaccine For Bacterial Meningitis To Be Tested in Finland

The effectiveness of a vaccine to prevent bacterial meningitis caused by group A meningococci will be tested in young children in Finland under a contract recently awarded by the National Institute of Allergy and Infectious Diseases.

Dr. P. Helena Makela, Central Public Health Laboratory, and Dr. Oswald Pettay, associate professor for Infectious Diseases, University Central Hospital, both in Helsinki, will begin vaccine trials in early November under the \$140,000 contract.

The meningococcus is a major cause of meningitis in young children, and infection sometimes leads to neurological damage or death.

Since January 1973, Finland has been experiencing a major epidemic of meningococcal group A meningitis. This outbreak has been further complicated by the fact that the bacteria involved are resistant to sulfonamides, the class of antibiotic preferred for treatment of this infection.

Meningococcal group A meningitis (See VACCINE, Page 7)

### Dr. de Duve, Nobel Laureate, Speaks on Campus Nov. 19

Dr. Christian de Duve, Nobel prize winner, will speak at a seminar Tuesday, Nov. 19, at 11 a.m. in the Masur auditorium.

He will discuss The Relationship of Lysosomotropic Agents to Cancer Chemotherapy. The seminar is sponsored by the Laboratory of Experimental Chemotherapy, NCI.

The laureate, an NIH grantee, shared the Nobel Prize for Medicine or Physiology, with Dr. George Emil Palade and Dr. Albert Claude. They were cited for being "largely responsible for the creation of modern cell biology."

Dr. de Duve is conducting research at Rockefeller University and at the University of Louvain in Brussels. He is a NICHD grantee and heads a program on mechanisms of cellular aging and degeneration.

# the NIH Record

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## Employees May Restore Leave Under New Law

If employees have not used annual leave in excess of the maximum carryover balance—240 hours, or more if authorized—because of administrative error, illness, or demands of their work then such leave may be restored.

Generally, excess annual leave is forfeited if not used by the end of the leave year, which at NIH is Jan. 4, 1975. However, the recently enacted Public Law 93-181 provides that such forfeited leave may be restored under certain circumstances.

In order to restore excess annual leave which otherwise would be forfeited, employees must submit in writing *no later than Nov. 23, 1974*, a schedule for taking excess leave.

Questions relating to leave restoration will be answered by B/I/D personnel offices.

## Dr. Reingold From Smithsonian Speaks to Medical History Soc.

The Washington Society for the History of Medicine will meet Thursday, Nov. 14, at 8 p.m. in the Billings Auditorium at the National Library of Medicine.

Dr. Peter H. Niebyl from the Institute of the History of Medicine, Johns Hopkins University, will discuss William H. Welch—A Comparative View.

Hanged and Electrocuted: Joseph Henry's Experiments on the Murderer LeBlanc will be the second topic. It will be presented by Dr. Nathan Reingold, editor of the Joseph Henry Papers at the Smithsonian Institution.

Visitors are invited to attend.

## Lab Safety Training Course Begins in Dec.



The Office of Research Safety of the National Cancer Institute, and the NIH Biohazard Committee will sponsor a laboratory safety training course—Principles of Biohazard and Injury Control for the Biomedical Laboratory—from Dec. 10-12, in Bldg. 31, Conference Room 10 (C Wing, 6th floor).

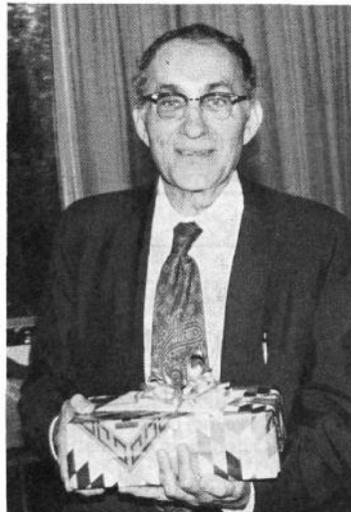
The course, conducted by the University of Minnesota School of Public Health, will instruct professional laboratory research personnel in basic principles of lab safety and contamination control.

Lectures include the history of laboratory-acquired infections, an assessment of biohazards in biomedical research, and the use of biological safety equipment.

Animal containment methods, disinfection and sterilization procedures, and control methods for physical, chemical and radiological hazards will also be discussed.

Registration deadline is Nov. 22. Send name, position, laboratory, building and room number to the Office of Research Safety, Bldg. 41, Room A-114, or call Ext. 66981.

## Morrison Rogosa Retires, but Only From 38 Years Of Federal Service; to Continue With His Research



Some years ago, Mr. Rogosa spent 18 months as a visiting professor at the University of Reading in England where the National Institute for Research in Dairying was conducting studies. His work there contributed not only to dental research, but also to new knowledge in dairy science, poultry nutrition, and vitamin research.

After 38 years of Federal service, Morrison Rogosa, National Institute of Dental Research, is retiring, but that will not stop him from continuing his research activities. Mr. Rogosa is a microbiologist with NIDR's Laboratory of Microbiology and Immunology.

He began his career in 1938 as a bacteriologist with the Department of Agriculture.

Among his contributions there was the development of the first bacteriological method for microassay of a metal and the first experiments leading to the microbiological assay and eventual isolation of vitamin B12.

In 1948, he joined the Dental Research Section of NIH's Experimental Biology and Medicine Institute. When NIDR was established later that year, Mr. Rogosa was one of the 30 persons comprising the nucleus of investigators on the staff.

### Organizes Lab at Eastman

One year later, Mr. Rogosa was assigned by NIDR to organize and maintain a field laboratory at the Eastman Dental Center, Rochester, N.Y.

Because of his background with the lactic acid group of microorganisms — including lactobacilli and streptococci which are important in the dental field—Mr. Rogosa was selected in 1958 to collaborate as a visiting research professor with the National Institute for Research and Dairying at the University of Reading in England.

The 18 months he spent abroad resulted in benefits extending beyond dental research—his studies with lactobacilli contributed new knowledge in such areas as dairy science, animal and poultry nutrition, food production and spoilage, and vitamin research.

Mr. Rogosa is the author of more than 50 papers concerning his research on the classification and arrangement of hundreds of bacterial strains comprising all known lactobacilli, as well as some new genera and species he discovered.

### Serves as Editor

He has served as an editor of *Bacteriological Reviews* and as a contributor and advisory chairman for *Bergey's Manual of Determinative Bacteriology*.

Mr. Rogosa will continue his studies by working with the American Type Culture Collection as chairman of the International Committee on Lactic Acid Bacteria, and as an active member of the National and International Committees on 25 other groups of bacteria.

He also expects to keep up his interest in the classics and current literature and to become an even more frequent attendant of plays and concerts in the Washington area.

## FAES Concert to Feature Young Pianist Murray Perahia Nov. 17

The young American pianist, Murray Perahia, who appeared in the 1972-73 Chamber Music Series sponsored by the Foundation for Advanced Education in the Sciences, will return to NIH on Sunday, Nov. 17.

The concert, to be held in the Masur auditorium at 4 p.m., will include selections by Haydn, Schumann, and Chopin.

Admission is by ticket only.

## Return All Tote Boxes To Central Storeroom

Materiel Management in the Division of Administrative Services has requested that after supplies have been removed, delivery containers—tote boxes—be returned to the Central Storeroom.

The boxes should not be used as receptacles for other office equipment or trash.

In Bldg. 10, the empty tote boxes may be deposited at the elevator closest to the employees' office. From there, the boxes will be returned to the storeroom. For pickup service in other buildings on or off the reservation, call Ext. 62284 or 66028.

Materiel Management has also pointed out that tote boxes are expensive to replace—each box costs \$20—they are used only for transporting supplies from the Central Storeroom to B/I/D offices.



Stanislaw Giereck, wife of the Polish government leader, is welcomed to the Clinical Center by CC associate director Dr. Philippe Cardon, Jr. Mrs. Giereck's recent tour included a stop at a laminar air flow room where NCI's Dr. Philip A. Pizzo explained the germ free environment. She also visited the outpatient clinic where she was briefed by NCI physician Dr. Brigid Leventhal on the childhood leukemia program at NIH. Dr. Enger Rosvold, NINDS, also accompanied Mrs. Giereck on the tour.

## Health Benefits 'Open Season' Begins For All Plans Nov. 15; Ends Nov. 30

An "Open Season" for the Federal Employees Health Benefits Program begins on Nov. 15 and ends Nov. 30.

During this period, eligible employees may register to enroll in a plan, option, type of enrollment, or any combination of these.

### New 1975 Rates

New rates become effective on Jan. 5, 1975.

#### GROUP HEALTH ASSOCIATION OF WASHINGTON, D.C.

	1974	1975
<i>Self</i>		
High option	\$ 6.77	\$ 7.00
Low option	3.23	3.16
<i>Family</i>		
High option	17.60	18.14
Low option	8.98	8.89

#### INDEMNITY BENEFIT PLAN (Aetna)

<i>Self</i>		
High option	5.03	3.88
Low option	1.49	1.59
<i>Family</i>		
High option	12.50	9.77
Low option	3.69	3.93

#### SERVICE BENEFIT PLAN (Blue Cross-Blue Shield)

<i>Self</i>		
High option	6.39	5.40
Low option	1.02	1.02
<i>Family</i>		
High option	15.30	12.88
Low option	2.50	2.50

#### UNIVERSITY AFFILIATED HEALTH PLANS, INC. OF WASHINGTON, D.C.

(New plan for 1975 has only one option.)

<i>Self only</i>	4.61*
<i>Self and family</i>	17.82*

\* These rates are unofficial.

Changes from family to self-only enrollment may be made at any time during the year.

NIH employees may enroll in one of 10 different plans.

The four general plans are Group Health Association Plan of Washington, D.C., Indemnity Benefit Plan (Aetna Life and Casualty Company), Service Benefit Plan (Blue Cross-Blue Shield), and a new comprehensive group-practice plan, University Affiliated Health Plans, Inc., of Washington, D.C.

The other health benefits plans are: American Federation of Government Employees Plan, Alliance Plan, American Postal Workers Union Plan, Government Employees Hospital Association Plan, and Mail Handlers Plan.

In order to enroll in one of these plans, an employee must become a regular or associate member of the sponsoring organization.

Employees living in the area surrounding Columbia may enroll in the local comprehensive medical plan—the Columbia Medical Plan of Columbia, Md.

During the "open season," registration assistants will reply to questions on the program and help employees to complete forms. Their names and locations will be posted on official bulletin boards and in personnel offices.

A panel of experts from the four (See OPEN SEASON, Page 8)

## Dr. Gwadz and His Insectary Are Now at NIAID; Continues Studies on Vectors of Human Malaria

World travel has made the control of malaria, one of the chief killers of mankind, vitally important to the entire world and not just to those endemic areas in Southeast Asia and Africa where over one billion people live.

That is why the studies of Dr. Robert W. Gwadz, National Institute of Allergy and Infectious Diseases, on the mating behavior of mosquitoes in the new NIAID insectary—a place for insects used in research—is deemed so important.

Dr. Gwadz, who is with NIAID's Malaria Section, Laboratory of Parasitic Diseases, was formerly with the Institute's Primate Malaria Unit in Chamblee, Ga.

On the campus, he is continuing his research on the genetics of certain breeds of mosquitoes and their capacity to transmit malaria to humans.

Since two of the major species that Dr. Gwadz is studying — *Anopheles balabacensis* and *A. maculatus*—will not mate in captivity, they must be force mated by scientists using a technique developed by Dr. William E. Collins who is on the staff of the Center for Disease Control in Atlanta. Dr. Collins had been head of the former unit in Chamblee.

The long range goal of Dr. Gwadz' further studies at NIAID is to achieve a biological method for controlling the *Anopheles* mosquitoes which transmit human malaria.

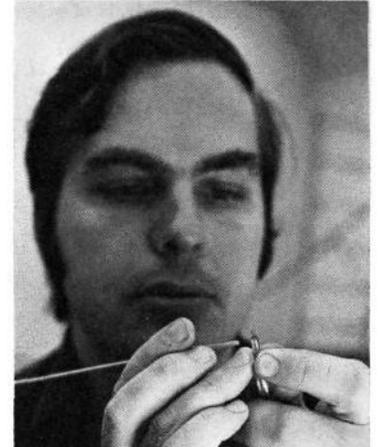
Researchers have found that the ability in the mosquito to transmit filariasis and chicken malaria is genetically controlled.

If the ability to transmit malaria is also under simple genetic control, one could develop, through selective breeding, stocks of mosquitoes completely resistant to the parasite.

These mosquitoes could then be

released in areas where malaria is endemic, and, in time, replace the population of transmitters, thus eliminating malaria without upsetting the area's ecology.

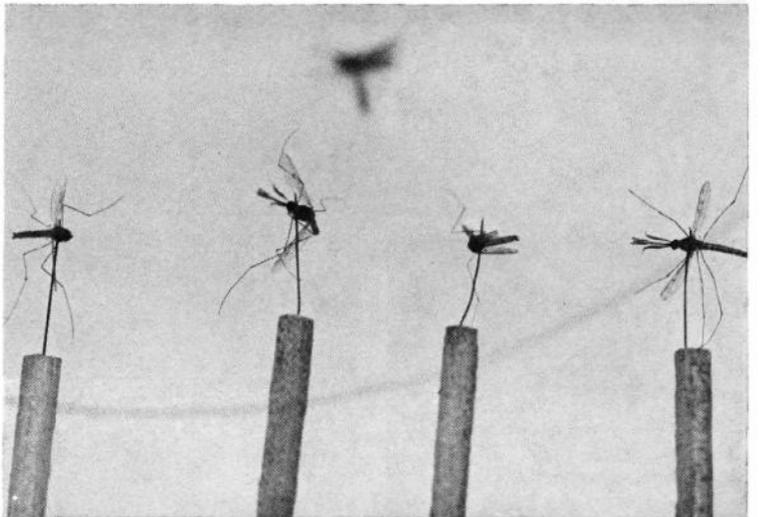
A number of problems are asso-



Dr. Gwadz performs radical brain surgery, impaling a male on a needle and removing the head. The nerve center which controls the mating instinct is located in the head and removal releases the male mosquito's inhibitions. Two vectors of malaria in Southeast Asia will not mate in captivity; to maintain these species, Dr. Gwadz relies on forced mating. This technique was developed by Dr. Collins.

ciated with methods for controlling malaria. Concern over the long-term presence of DDT in body tissues has limited its use in mosquito eradication.

In addition, mutations have pro- (See DR. GWADZ, Page 7)



Although some males have already lost their heads, each of them is ready to impregnate a female. A female mosquito—it is first anesthetized—can only be impregnated once. The optimum mating age for the female is 4 days while that of the male is 8 days. The female of the species is in the background.

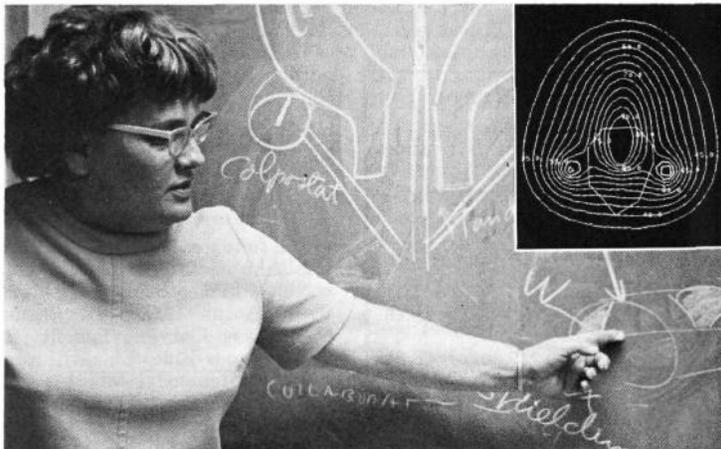
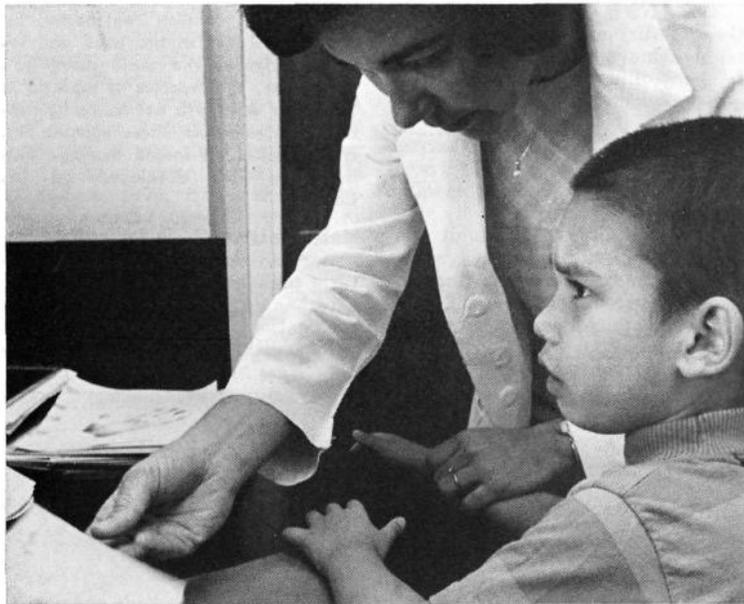
The University of California at Los Angeles Health Sciences Computing Facility is developing new statistical and mathematical approaches to help biomedical scientists meet today's requirements for handling information.

By outward appearances it is a quiet place, but behind the facade the facility—supported by the Biotechnology Resources Branch of the Division of Research Resources—is the scene of an exciting effort to bring the researcher as close as possible to mathematics, statistics, and computers.

As today's scientists realize, human physiology has an infinite number of variables, and one of the constant needs in medical research is an automated approach to analysis of scientific data.

# THE UCLA HEALTH SCIENCES COMPUTING FACILITY

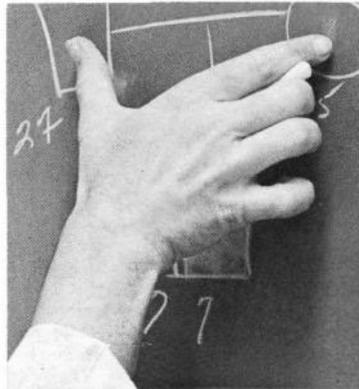
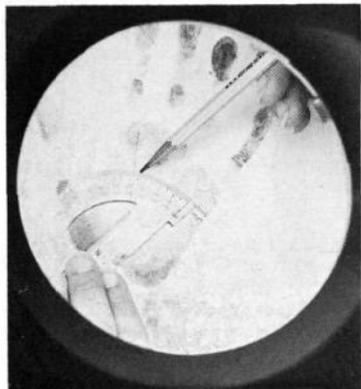
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Dr. M. Anne Spence (left) is one of the few U.S. geneticists experienced with computers. She is trying to identify how specific genetic mechanisms, including chromosome examination, relate to various illnesses.

She is studying the ridge systems at the base of each finger and the dermal ridges of the fingertips to measure genetic traits, including new genetic markers for autism as well as other diseases.

Dr. Carol M. Newton (above) has developed computer programs to support radiation treatment planning and to aid in understanding the mechanism of the body's cellular system. She developed the computer simulated model (upper right) to allow the therapist to experiment in the computer with different doses for maximum effect on uterine cancer.

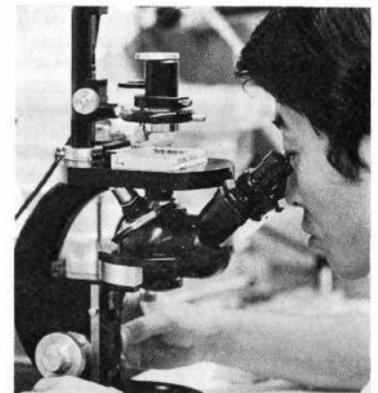
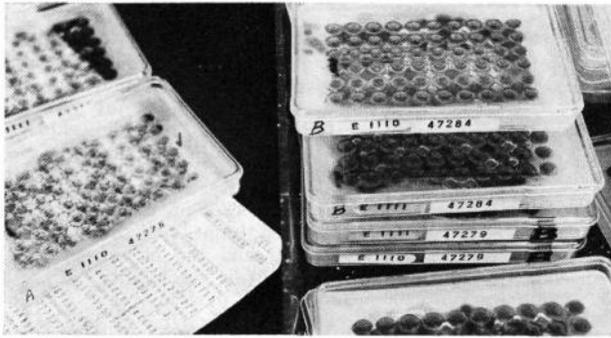




Dr. Wilfred J. Dixon, Director of the UCLA facility, conceived the idea of a health sciences computer center when he came to UCLA in 1955. He gradually built up a team and reported his ideas to NIH. A pioneer group was funded by DRR in 1962. The center's huge IBM 360/91 computer works in a number of ways for many scientists throughout the world.

The facility's Biomedical Computer Programs were developed to meet the needs of researchers who are not computer experts. Another development is the terminal support system that enables the scientist to converse with the computer from a terminal in his office or laboratory.

A booklet on the UCLA Center has been produced by the DRR Office of Science and Health Reports. Free copies are available from that office to *NIH Record* readers.



Dr. Paul Terasaki's research is based on the fact that the better the doctor's ability to match antigens, the better the transplanted organ is accepted by the recipient.

His laboratory developed the standardized typing trays which have led to uniformity of tissue typing among various laboratories.

He is using computer analysis for the classification of sera and the typing of subjects in terms of their transplantation antigens.

Each year his laboratory types nearly 15,000 subjects, including prospective transplant donors, recipients, and patients whose diseases involve transplantation antigens, and the file can be searched for suitably matched recipients in a matter of seconds.



## Anesthesiology Studies Reviewed in Workshop

Researchers at an Anesthesiology Research Workshop sponsored by the National Institute of General Medical Sciences, held here recently, concluded that the excellence and productiveness of basic studies in anesthesiology have grown markedly in recent years.

Research on the effects of anesthesiology agents on the structure and function of the brain as well as the nervous system were said to be progressing well. Knowledge derived from these studies would have profound implications for the development of new anesthetics and their safer administration.

However, strong concerns were expressed that medical technology in the areas of anesthetic administration and monitoring has, in general, not advanced appreciably over the past 25 years. This poses an urgent challenge for a concerted interdisciplinary effort between anesthesiologists and biomedical engineers.

A need for much better epidemiological data on the morbidity and mortality associated with anesthesiological procedures was also stressed.

There was apprehension that anesthesia research may be suffering from an increasingly critical shortage of well-trained investigators.

Dr. Ruth L. Kirschstein, NIGMS Director, welcomed the participants to the first major NIGMS research workshop that has been held since she was appointed Director.

Dr. Emilie A. Black, who chaired the workshop, said that NIGMS will publish proceedings of the meeting. Dr. Black is NIGMS acting deputy director for the Clinical and Physiological Sciences Program.

Dr. John R. Hogness, president of the University of Washington, delivered the principal address. Dr. James E. Eckenhoff, Dean of the Northwestern University Medical

## DR. ANDRES

(Continued from Page 1)

problems of the elderly. His studies of age changes in carbohydrate metabolism as related to diabetes are known to endocrinologists and diabetes experts.

Dr. Andres is concerned with finding better methods to identify "true" diabetes in the aged.

Several years ago, he and his GRC colleagues developed a nomogram which permits clinicians to relate responses on oral glucose tolerance tests to a subject's age and his percentile ranking among men of the same age.

The nomogram gives the physician a perspective from which to make a clinical judgment.

Dr. Andres and his co-workers have also devised a research technique, the "glucose-clamp," which places the blood sugar concentration of a person under the control of the investigator.

This technique is being used at GRC to study mechanisms underlying the deterioration of glucose metabolism with advancing age, and to elucidate factors controlling the secretion and action of insulin.

Dr. Andres became a clinical gerontologist in 1962, the year he joined GRC as clinical director and chief of the Metabolism Section.

### Golf Association to Hold Banquet

The NIH Men's Golf Association will hold its annual awards banquet Friday, Nov. 15, at the National Naval Medical Center's CPO Club at 7 p.m.

For more information, call Russ Ulshafer, Ext. 67337.

School, gave the opening address on the second day.

The principal investigators from the NIGMS Anesthesiology Research Centers who presented papers at the meeting were Dr. John J. Bonica, Dr. William K. Hamilton, Dr. Richard J. Kitz, Dr. Shih-sun Ngai, and Dr. Harry Wollman.



Dr. Richard Chapman, who is also at the U. of Washington, is doing research in dental acupuncture. He uses that method of analgesia for studying sensitivity to pain.

## Acupuncture as Analgesia Discussed by Dr. Casey At NIGMS Meeting

Some of the mysteries concerning the effects of acupuncture were discussed by Dr. Kenneth L. Casey of the University of Michigan. Dr. Casey, who is an associate professor of Physiology, Neurology, and Neurophysiology (Surgery) at Ann Arbor, spoke during the NIGMS Anesthesiology Research Workshop.

Dr. Casey participated in the Acupuncture Anesthesia Study Group that spent 3 weeks in the People's Republic of China last May.

The group observed 48 operations ranging from dental extractions to major thoracic surgery. Of these cases, 73 percent were judged to have had satisfactory or probably satisfactory analgesia—by American standards.

### Dr. Casey Evaluates Acupuncture

Dr. Casey commented:

"The evaluation of acupuncture as a treatment for chronic pain is even more difficult and cannot be adequately assessed at the present time.

"There is no doubt, however, that in China major surgery can be performed under acupuncture with little or no analgesic medication and with satisfactory analgesia in most but not all cases.

"In humans, the mechanism of action is obscure; it is not clearly and simply a peripheral or segmental blockade of impulses from nociceptors (pain receptors). In fact, the extent to which acupuncture needling or stimulation is necessary is an open question.

"Many features of the acupuncture analgesia phenomenon emphasize the importance of suprasegmental brain mechanisms in the control of pain. Clearly, further research on the central mechanisms of pain and its control is required before (nearly) drugless analgesia can be understood and, perhaps, used effectively," Dr. Casey added.

"In interpreting the Chinese research effort, it should be kept in mind that research in China is highly directed on the basis of its presumed immediate practical application and the enhancement of the scientific credibility of acupuncture in particular and Chinese traditional medicine in general.

"In the United States, the relevant clinical and basic research should continue to follow the customary lines of scientific rigor and objectivity applied to the investigation of any potentially useful therapeutic tool," Dr. Casey further recommended.

## Harold L. Tarpley Dies; NLM Unit Head Active In EEO Program Plan

Harold L. Tarpley, Sr., a supervisory technical information specialist at the National Library of Medicine, died on Oct. 16. He had been at the Library for 19 years.

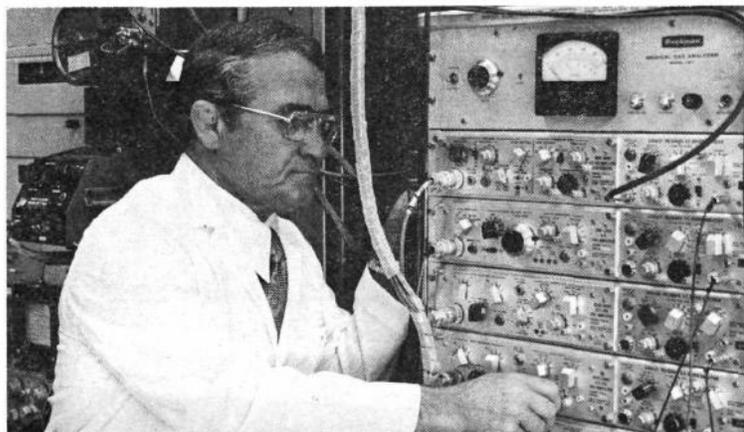
Mr. Tarpley, born in Greensboro, N.C., joined the Federal Government 20 years ago as a messenger with the Armed Forces Institute of Pathology.

A graduate of the Agricultural and Technical College in Greensboro, he received his M.A. in history from Howard University in 1954, and the following year came to NLM as an editorial clerk.

In his most recent post, Mr. Tarpley was one of two unit heads in the Index Section. He trained and supervised analysts of biomedical literature and maintained liaison with libraries of several foreign scientific institutions.

He was active in NLM's EEO program, serving for 2 years as chairman of the committee which developed its EEO Affirmative Action Plan, and in December 1973 received an award in recognition of his work on the committee.

He is survived by his wife, Mozelle; a son, Harold L. Jr., and a daughter, Joyce, of the home address in Rockville; the Rev. and Mrs. Isadore Tarpley and two sisters residing in Greensboro, and a brother, John, of Rockville.



Dr. Bonica directs the Anesthesiology Research Center at the University of Washington. He is adjusting a medical gas analyzer. At the NIGMS workshop it was suggested that advancement in anesthesiology may be furthered by a concerted research effort between anesthesiologists and biomedical engineers.

## VACCINE

(Continued from Page 1)

tis has not been very common in the United States in the past few decades. However, sporadic cases of this potentially epidemic disease do occur each year in this country and Canada.

Current meningococcus group A epidemics in Finland and Brazil, emphasize the importance of having a well-tested vaccine available.

Earlier this year, Dr. Makela contacted NIAID concerning support for a trial of the group A vaccine. NIAID's Infectious Diseases Branch has been supporting limited clinical trials of the vaccine in children in this country for several years and had begun planning for a larger field trial.

Approximately 120,000 Finnish children ages 3 months to 6 years will receive the meningococcal vaccine or, as a control, an experimental vaccine for the prevention of *Haemophilus influenzae* type b meningitis, a disease similar in many respects and often confused with meningococcal meningitis.

In order to prepare children for the disease's expected peak season in March, April, and May, regular clinic personnel in well-baby clinics in two counties will vaccinate study participants during 2 weeks in November.

Participation in the study will be completely voluntary, and the written informed consent of parents is required prior to vaccination, consistent with requirements of the DHEW for the protection of human subjects in research.

These require review not only by NIH staff scientists but by a Finnish committee to be sure that the research complies with Finnish law and Finnish standards of medical practice.

Blood samples from a small percentage of the group will be observed for development of protective antibodies in response to vaccination.

Throat swabs from the same children will indicate the number

## Anthony Tsiu Returns to Hong Kong; Outlook Is Bright After Heart Surgery



Anthony Tsiu proudly displays the ship model he constructed. Standing behind him (l to r) are: Dr. Lum; Dr. Glen Rhodes, NHLI, Anthony's attending physician; Dr. Morrow, and Mr. Tsiu.

When 10-year-old Anthony Tsiu left the Clinical Center recently to return to his home in North Point, Hong Kong, he took with him a new Redskins helmet and T-shirt and a bright outlook for the future—all gifts of the staff on Nursing Unit 6W.

of carriers—people who have the bacteria in their throats and are, thus, capable of infecting others, but who do not become sick themselves.

All vaccinated children will be carefully followed to determine how many in each group develop later infections. This information will help to define the effectiveness of the meningococcal vaccine and will also provide useful information on the *H. influenzae* type b vaccine.

The meningococcal group A vaccine was originally developed by scientists at Walter Reed Army Institute of Research, led by Dr. Malcolm S. Artenstein. The vaccine actually consists of the outer shell

of the microorganism, rather than the whole bacterium.

The control of *H. influenzae* type b vaccine, also made from the cell wall, will be produced by Dr. Porter Anderson of Children's Hospital, Boston, and purchased for the study by NIAID.

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## DR. GWADZ

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duced mosquito strains that are resistant both to DDT and the newer insecticides.

The release of chemically sterilized mosquitoes can be effective in reducing mosquito populations, except, as NIAID scientists have shown, sterilized females can still transmit malaria.

### Went to Notre Dame, Harvard

Dr. Gwadz received his Ph.D. from the Vector Biology Laboratory at Notre Dame University in 1970, and did 2 years postdoctoral research at Harvard University's Department of Tropical Public Health before joining NIAID's unit in Chamblee.

In addition to the *Anopheles* mosquitoes and the colony of rhesus and owl monkeys used to maintain the malaria parasite, the NIAID insectary will house *Aedes aegypti* mosquitoes for the study of filariasis.

Kissing bugs — the vector of Chagas' Disease, the South American form of trypanosomiasis, will be added later.

Also, a narrowing of the pulmonary outflow tract (pulmonic stenosis) impedes the flow of venous blood from the heart to the lungs where oxygen is picked up. As a result, the tissues receive an inadequate supply of oxygen and the body cannot sustain activity.

### Life Expectancy 12 Years

The heart, in turn, becomes enlarged trying to compensate for the deficiency. Without surgical correction, the prognosis is poor, ultimately resulting in death. The average life expectancy in these patients is 12 years of age.

Anthony's father, Kwong Ming Tsiu, had sought treatment for the child in Hong Kong. However, since open heart surgery is not often performed there, the facilities are inadequate and the survival rate poor; only palliative therapy is available.

Last May, Mr. Tsiu contacted Dr. Clark Lum at the National Heart and Lung Institute regarding possible help for his son at NIH. Dr. Stephen Epstein, chief of the NHLI Cardiology Branch, arranged for Anthony to be admitted to the CC for study and treatment.

Anthony entered the hospital Sept. 15 and, after extensive testing, underwent open heart surgery. The ventricular septal defect was closed and the pulmonary outflow tract cleared of obstruction. His surgeon, Dr. Andrew G. Morrow, chief of the NHLI Surgery Branch, says Anthony can now be expected to live a normal life.

Dr. David L. Gregg, who assisted in surgery, described Anthony as "a delightful kid—an artist and a comedian."



COMBINED FEDERAL CAMPAIGN at NIH shows a serious and a lighter side. Contemplating effective ways to help NIH reach its quota during a recent campaign meeting are (l to r): Dr. Milo D. Leavitt, Jr., FIC Director and CFC vice chairman; Dr. Robert S. Stone, NIH Director and CFC chairman, and George Presson, FIC executive officer and campaign coordinator. After the meeting, Tony Anastasi, CFC publicity chairman, is amused when alert NIH photographer Ed Hubbard surprises Teddi Schulman, FIC. Mrs. Schulman had to climb up on the huge conference table to collect the campaign flags. (See story on CFC participation, page 8.)

## Harold W. Curran Ends 44 Years Fed'l Service

Harold W. Curran, executive officer of the Division of Research Grants since 1959, recently retired after 44 years of Federal service.

Mr. Curran began his career in Government with the Census Bureau in 1930. He was affiliated with several Federal agencies, including the Farm Credit Bureau and the Federal Bureau of Investigation, before he joined the Social Security Administration in 1937.

In 1940, he moved to the Office of Education as Director of Finance for training programs in the Division of Vocational Education.

After World War II, Mr. Curran worked with the budget office of the Federal Security Agency—now part of the HEW Office of the Assistant Secretary, Comptroller—until 1950 when he came to NIH as budget and fiscal officer. Two years later, he became assistant executive officer of NIH.

In 1955 he left NIH to become the first executive officer of the PHS Indian Health Service.

He returned here in 1959 as executive officer of the Division of



Dr. John C. Eberhart, Director of the National Institute of Mental Health Intramural Research Program, is one of 11 Federal career employees who have been given the National Civil Service League's 20th annual award for excellence and special achievement. Dr. Eberhart was cited for his leadership in national research on mental health and mental illness.

## Broader Participation in CFC Is Requested

Combined Federal Campaign figures last week showed that NIH has reached 78% of its goal of \$187,380, with 2 weeks to go.

As of last week, total contributions were \$146,489, with an average gift of \$34.76 per person. These donations came from 4,214 NIH employees.

In discussing the campaign, Dr. Milo D. Leavitt, CFC vice chairman, said "We would like to see a much broader participation in the campaign by NIH employees. Only 43% of the 9,796 employees have contributed so far.

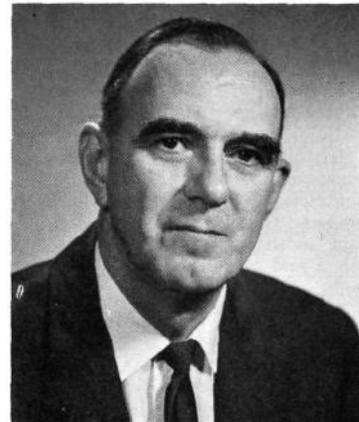
"They have given generously. But it is the remaining 57% that we are encouraging to give to this worthy cause which only comes once a year," he further explained. Dr. Leavitt is Director of the Fogarty International Center.

Four NIH units have now surpassed 100% of their quotas: FIC; NIGMS; DRG, and NLM. DCRT now has 95%, with NIAMDD at 85%, and NIDR and NIAID both at 83%, and OD at 82%.

## Prize Drawing Is Scheduled For CFC Donors on Nov. 8

Combined Federal Campaign officials will hold a drawing of \$100 worth of prizes donated by the NIH Recreation and Welfare Association this Friday, Nov. 8, at 1:30 p.m. in the A wing lobby of Bldg. 31.

In order to be eligible for a prize, employees who have contributed to the CFC receive a ticket stub from their CFC keyman.



Mr. Curran, who held a number of budget and fiscal posts in several Government agencies, has been executive officer of DRG for the past 15 years.

Research Grants where he served until his retirement.

Mr. Curran received an M.A. de-

## DR. SCHMIDT

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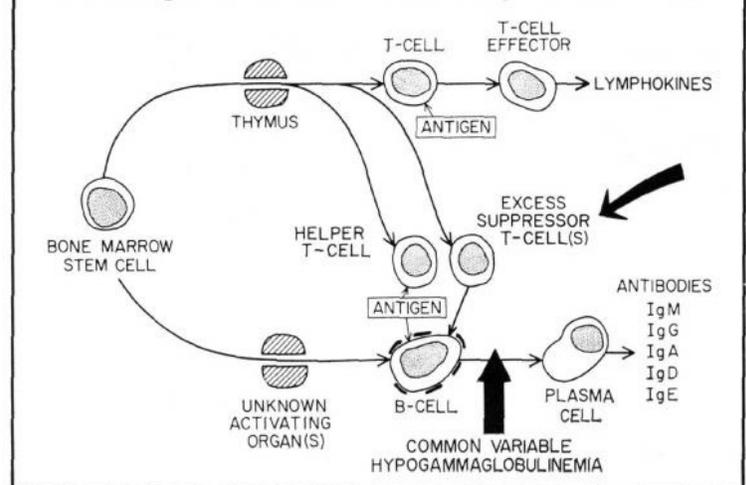
development of transfusion as a surgical specialty from early in the 17th century to a clinical pathology specialty at present.

According to Dr. Schmidt, transfusion therapy is only replacement therapy, and "in another 20 years we will no longer need blood banks. There will be better ways of doing things."

Past recipients of the Cooley Award include Dr. Hugh Chaplin, Jr., first chief of the CC Blood Bank (1953-55), and Dr. Alexander Wiener, co-discoverer of the Rh factor.

## CVH STUDY HELPS EXPLAIN IMMUNE SYSTEM

The Complex Mechanism of Antibody Failure in CVH



Large arrow at bottom indicates blockage in normal B-cell maturation into antibody producing plasma cells. B-cells and T-cells are believed to originate as primitive stem cells of the bone marrow. Other immunologic factors are lymphokines, which assist in the rejection of grafts and in normal delayed hypersensitivity reactions.

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reduction in antibody production.

Dr. Waldmann noted that the findings may have relevance in other diseases associated with abnormal anti-body production.

In lupus, for instance, a lack of suppressor T-cells may be the cause of runaway antibody produc-

tion, creating antibodies against the patient's own normal tissues and organs.

Chronic lymphocytic leukemia and cancers of the thymus and bone marrow may also be associated with T-cell imbalances.

The research, conducted by Dr. Waldmann, Dr. Samuel Broder, Mary Durm, Marcia Blackman, Dr. R. Michael Blaese, and Dr. Warren Strober of the Metabolism Branch of the British journal *Lancet*.

**Research Reported in 1970**  
The existence of suppressor T-cells was reported in 1970 by Dr. Phillip J. Baker of NIAID. Dr. Waldmann cited research at Yale and Harvard Universities and NIAMDD as also contributing to this new understanding of the nature of CVH.

The current findings, in turn, help to delineate some of the mysteries of the entire immune system.

**Video Taped Talks Played Here, Lecturers Include Dr. Piaget**  
Video taped lectures entitled Creativity: The Moving Force of Society? will be delivered by Dr. Jean Piaget, the French psychologist; Dr. James Youniss, Catholic University, and Dr. Charles Halverson, chief, Section on Child Behavior, Child Research Branch, NIMH.

The taped lectures, sponsored by NICHD, will be played on Nov. 13, at 8 p.m. in the Masur Auditorium. Details about another program on Nov. 20, same time, same place, will be carried in the Nov. 19 *Record*.

major health plans will answer questions on the 1975 contracts on Thursday, Nov. 21, at 2 p.m., in Wilson Hall, Bldg. 1. All employees are invited.

A booklet, entitled *Open Season, Instructions and Information About Plan Changes Effective 1975*, will be distributed to all employees. Brochures on a new comprehensive group-practice plan, University Affiliated Health Plans, Inc., will be distributed at the same time.

All of the plans have changes in benefits. Brochures of the other plans will be available in personnel offices.

Most employees will be charged lower premiums for coverage next year because of a change in the health benefits law which increases the Government's premium contribution from 50 to 60 percent.

The Civil Service Commission negotiated lower-than-average increases with the Government-wide carriers.