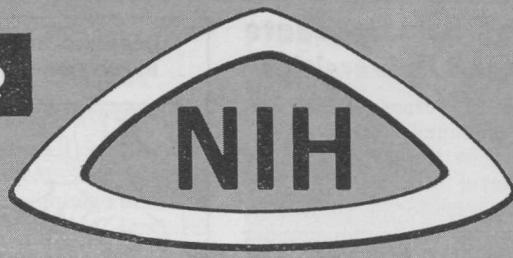


the



Record

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

February 13, 1973
Vol. XXV, No. 4

NATIONAL INSTITUTES OF HEALTH

NIH Scientist, Grantees Get 'Modern Medicine' Achievement Awards

An NHLI surgeon and six NIH grantees were among 10 recipients of 1973 Distinguished Achievement Awards from *Modern Medicine*, a leading national medical journal.

The 10 winners were selected from more than 200 men and women nominated by the deans of American medical schools, the ex-



"During the last 25 years, a relative handful of doctors has shaped the direction of surgery in America. Clarence Dennis is one of them." — "Modern Medicine."

ecutive officers of national and regional medical organizations, the journal's editorial board, and its physician-readers.

The Jan. 22 issue of *Modern Medicine*, cited Dr. Clarence Dennis for "fundamental studies in relation to gastrointestinal and cardiovascular surgery."

Dr. Dennis joined the National Heart and Lung Institute last year as director of its Division of Technological Applications.

The *Modern Medicine* article, describing his numerous achievements, notes that he and his associates at the University of Minnesota Hospitals were the first to use mechanical support in the treatment of myocardial infarction and shock.

Dr. Dennis also improved surgi-

(See NIH SCIENTIST, Page 6)

Dr. Rodbell Awarded Jacobaeus Lectureship

Dr. Martin Rodbell, National Institute of Arthritis, Metabolism, and Digestive Diseases, has been awarded the 1973 Jacobaeus lectureship sponsored by the Nordisk Insulin Laboratorium in Copenhagen.

Dr. Rodbell is chief of the Membrane Regulation Section in the Laboratory of Nutrition and Endocrinology.

He was recognized for his contributions in the study of hormone action on adenyl cyclase systems. Investigations of these systems have yielded valuable insights into the nature of endocrine disorders.

Dr. Rodbell will present the annual Jacobaeus lecture to Scandinavian medical schools in Oslo, Copenhagen, Stockholm, and Aarhus (Denmark) over a 2-week period in June.

The award also includes a \$1,000 honorarium and a commemorative medal which will be presented at special ceremonies in Oslo.

Dr. Rodbell received his B.A. in biology from Johns Hopkins University, where he also completed postgraduate studies in chemistry.

He earned a Ph.D. in biochemistry at the U. of Washington and was a postdoctoral research associate in chemistry at the U. of Illinois.

Dr. Rodbell came here in 1956 as a chemist in the National Heart and Lung Institute. After a year of training at the University of Brussels and Leiden U. in Holland, he joined the NIAMDD in 1961.

International Meeting to Stress Rapid Microbiological Techniques

A conference entitled Symposium on Rapid Methods and Automation in Microbiology will be held on June 4-8 at the Karolinska Institutet in Stockholm, Sweden.

WHO and the UNESCO-ICRO Panel for Applied Microbiology are cooperating with the International Organization for Biotechnology and Bioengineering in arranging the meeting.

A preliminary program may be requested from the Scientific Attache, Swedish Embassy, 600 New Hampshire Ave., Washington, D.C.

Biological Effects of Asbestos Reveal Urgent Need for Research and Control

"What we do in 1973 will determine how many (asbestos-associated) cancers we are going to see in the year 2000."

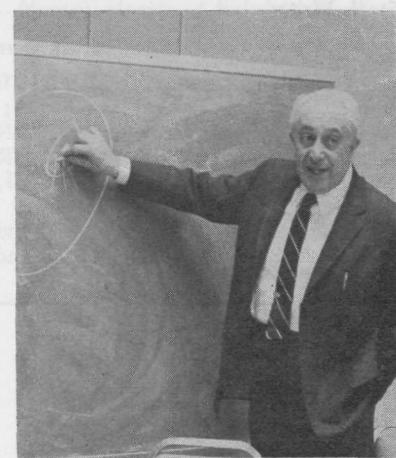
Speaking at a recent NIEHS-sponsored clinical conference here on Biological Effects of Asbestos, Dr. Irving J. Selikoff of Mt. Sinai Hospital and Medical School, New York, expressed concern over past experiences in dealing with the mineral.

"It is seriously urgent that the necessary research be done now, that the necessary information be discovered now, that the necessary controls be instituted now, that industry be told what it has to do, . . . and that labor has to be told what the risks are . . .," he commented.

In addition to the need for prevention, Dr. Selikoff explored research being undertaken to help those already exposed to the dangerous particles.

Dr. David P. Rall, Director of the National Institute of Environmental Health Sciences, presided at the conference. Many of the studies reported are being supported by research grants from his Institute.

It has been calculated that an asbestos worker who smokes cigarettes has 8 times the risk of dying of lung cancer compared to similar smokers of the same age who don't work with asbestos, and 92 times



During his discussion of a German scientist's research on dissolving minerals in the lungs, Dr. Selikoff explains how cells combat foreign material in the body.

the risk compared to a non-smoker who does not work with asbestos.

Adults in urban areas tend to have asbestos fibers present in their lungs (fewer fibers than asbestos workers have) through air pollution caused by brake lining wear or weathering of asbestos shingles.

Asbestos may be a life-saving material when woven into fabrics that resist fire. It may also be used to insulate pipes and walls.

Particles Dangerous

With all of its benefits, however, danger lies in the tiny particles of asbestos that float in the air during the refining process, in large metropolitan areas, and in the immediate vicinity where it is used.

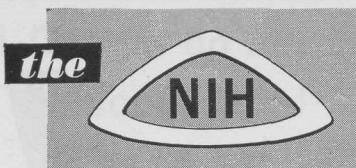
Because in 1930 research wasn't done that would have indicated what would have happened if asbestos was ingested or inhaled, the material is used rather freely with very few precautions, according to Dr. Selikoff.

Industry wasn't informed that asbestos could be dangerous to health. As a result, many people were exposed in the 1940s, 1950s,

(See ASBESTOS, Page 5)



A 4-inch sample of asbestos ore clearly shows the fibrous characteristic of the mineral.



Record

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11-Yr.-Old CC Patient Gets 'Get Well Wish' From President Nixon

Michael McKavanagh, an 11-year-old paraplegic patient at the Clinical Center, recently received a very special get well wish—a personal letter from President Nixon.

The idea for the President's letter came about through the concern of friends in Michael's home town of Levittown, Pa.

His classmates at St. Joseph the Worker School, where he attended class until last October, had been busy making cards and composing greetings to send him over the Christmas holidays. Daily masses were being devoted to his recovery.

On Dec. 21, the entire school gathered for a Christmas party. During the festivities, the school nurse, Rose Farley, thought of Michael and about what else might be done to cheer him up and take his mind off his illness.

She remembered reading that President Nixon had visited Bethesda a few days earlier and wondered if he or a member of his staff might call on Michael.

The chances were small, but Mrs. Farley decided it was worth a try.

She went to her office and composed a letter to the President.

Several days later, she received a call from the White House checking on Michael's condition and getting more details about his illness.

The White House staff member



Edith F. Phillips (l) is congratulated by Dr. J. Palmer Saunders, director of the Division of Cancer Grants, NCI, upon her appointment as administrative officer of the Division. She is the first woman in the Institute to be named as administrative officer. Mrs. Phillips, who has been at NIH more than 12 years, was head of the Administrative Services Section, Extramural Activities, NCI, at the time of her appointment.

told her that if someone couldn't visit Michael, the President would write him a letter.

Before long, Michael received the letter.

"Dear Michael," it said, "... Mrs. Nixon and I are praying for your recovery...."

Although confined to bed, Michael keeps his letter nearby where visitors and other patients in his unit can share his treasured and very special message from the President.

Program Offers Graduate Training in 9 Universities

The Office of Personnel Management has announced that candidates with the ability to qualify for high-level management positions may apply for 9 months of graduate university training under the Education for Public Management Program.

Administered by the Civil Service Commission, the program provides training at the following universities: Cornell; U. of Indiana; Massachusetts Institute of Technology; Harvard; Princeton; Stanford; U. of Southern California; U. of Virginia, and the U. of Washington in Seattle.

The CSC has the final responsibility for assigning schools. However, candidates may state their school preference, and when possible it will be followed.

Each participant may select a study program geared to his interests. Special seminars will be part of the curriculum.

Employees ages 25 to 45 years old who wish to be considered for this program must meet university admissions requirements, have at least 5 years of Federal civilian career service, and be in grades GS-11 through GS-15. A bachelor's degree, or a comparable qualification, is also essential.

Participants receive tuition, salary, benefits, and moving expenses.

Applications must be received by the Career Development Branch, OPM, no later than Feb. 16. For further information contact that office: Bldg. 31, Room B2B-15, Tube Station DS-7, or call Ext. 62146.

New Members Elected To Board, Committee Of NIH Credit Union

New members for both the Board of Directors and the Credit Committee of the NIH Credit Union were elected at the annual CU meeting on Feb. 1.

Four members were elected to the 9-member Board of Directors, including one incumbent—Dr. Harry G. Sheffield, NIAID. The others are: Robert L. Campbell, NIAMDD; Mary F. Davis, ODA, and Jehu C. Hunter, NICHD.

Those remaining on the board are: Helene N. Devay, ODA; Otis Ducker, ODA; Dr. David F. Johnson, NIAMDD; Doris D. Parkinson, NIAID, and Dr. Norman E. Sharpless, NIAMDD.

Three new members were elected to the 5-member Credit Committee. They are: Richard Albrecht, NLM; Dr. Normand R. Goulet, DRR, and Cora M. Sult, DRS. Remaining on the committee are Adrienne B. Hatchett, ODA, and Grant C. Riggle, DRS.

Deadline for 'NIH Record' Photo Contest Is April 30



"Watch the birdie!"

The NIH Record and R&W's Camera Club would like to again remind anyone interested in the photography contest that the deadline is April 30.

Pictures must be submitted to the Record office with all principal subjects identified.

Photos must have name and extension of entrants on the back.

Prizes will be awarded in three categories. For further information, contact the NIH Record, Ext. 62125.

'Dr. Dial' Gives Advice On Good Dental Care; Call Now, 337-8500

Call 337-8500 for the latest information on good dental health.

A "Dr. Dial" dental education program for residents of the Washington metropolitan area began on Feb. 1, in conjunction with National Children's Dental Health Week, and will continue throughout the month.

Dr. Dial, a phone-in program of dental health announcements, is sponsored by the D.C. Society of Dentistry for Children and the D.C. District Dental Society.

It is patterned after the Dr. Dial program developed by the Division of Dental Health, BHME.

The service has been used in Casper, Wyo.; San Jose, Calif.; Honolulu, and communities in North Carolina.

During February, more than 3½ million people in the D.C. area can phone Dr. Dial to learn about children's dental health and how to prevent periodontal disease.

A different dental health message can be heard every 3 days.



Gilbert Frey Retires; DRG Admin. Officer On Staff Since 1946

More than 100 NIH'ers attended a recent retirement luncheon for Gilbert J. Frey, administrative officer of the Division of Research Grants.

A member of the DRG staff since December 1946, Mr. Frey was the Division's senior "old timer."

"When I reported for duty," he recalls, "the Division consisted of 12 to 15 people."

He served under every chief and director of the DRG since its inception as the Office of Research Grants under the direction of Dr. C. J. Van Slyke.

Mr. Frey reported as a budget and fiscal clerk in 1946. He advanced through the ranks to budget analyst, budget examiner, and business accountant. In 1958, he received the Superior Service Award and was named Division administrative officer.

An avid archer, Mr. Frey is a past director of the Target Archery Division, Maryland Archery Association, and was Maryland State Champion on 6 different occasions. He also holds an honorary lifetime membership in the Potomac Archers of D.C., and a National Championship title.



Mr. Frey (r) receives a retirement gift from Dr. Carl D. Douglass, DRG deputy director.

Society Does Research On Ethical and Legal Counseling in Genetics

A 3-year study of the social, legal and ethical aspects of genetic counseling, and of screening for carriers of heritable diseases, will be undertaken by the Institute of Society, Ethics and the Life Sciences, at Hastings-on-Hudson, New York.

The work is supported by a grant from the National Institute of General Medical Sciences. NIGMS supports a \$30 million a year program in the area of basic and clinical genetics research.

Among the issues to be examined are those of privacy, and freedom from coercion in genetic counseling and genetic screening.

The Institute in Hastings is con-

Programs Stressing Ethnic Contributions Planned



Members of the Ad Hoc Committee are (seated): Gloria Bruns, OPM; Lucille Brayboy, BHME; Dr. Freda K. Cheung, committee chairman, OPM, and Sol del Ande Eaton, NCI. Standing: George S. Yee, EEO; Dr. Philip S. Chen, Jr., NIGMS; Arthur L. Thomas, BHME; O. H. Laster, NCI; Louis R. Perkins, UMC; Dr. Americo Rivera, Jr., NINDS, and Spencer Logan, EEO.

Members of the Ad Hoc Committee to plan and schedule cultural programs honoring the contributions of minority groups to the U.S. met recently at NIH. Committee members, a cross-section of NIH employees, and a representative from Upward Mobility College, selected the following dates for the programs:

Black History Week, Feb. 12-16; Spanish-surnamed Americans Week, April 9-13; Native Americans Week, May 7-11, and Asian Americans Week, June 4-8.

Speakers, ethnic dances, and films will be among the highlights included in each program.

The first program—Black History Week—which opened yesterday and will continue through Friday, will feature Parren J. Mitchell, U.S. Congressman from Maryland, who will speak tomorrow (Wednesday, Feb. 14) in Wilson Hall, Bldg. 1, between 12 and 1.

On Thursday, Rev. David Eaton, senior minister, All Soul's Unitarian Church, will give an address, and on Friday, Associate Judge Luke C. Moore, Superior Court of the District of Columbia, will speak.

Both programs will take place between 12 and 1 p.m. in the Jack Masur Auditorium.

sidered expert in the ethical, legal and social implications which attend many advances in biology and medicine. The study group will include geneticists, lawyers, sociologists and theologians.

They are not expected to define or recommend ultimate policies. However, the research may lead to a better informed public and be of value to those involved in the making of public policy.

Dr. S. Sonken Named To Dental Health Post

Dr. Selvin Sonken has been appointed chief of the Care Development Branch, Division of Dental Health, BHME.

A member of the Public Health Service since 1955, Dr. Sonken has served in the Division of Indian Health, PHS Hospital in Detroit, and the Dallas Regional Office.

He has been chief of the former Dental Care Branch, DDH, and the Division's Regional Dental Consultant in HEW's Boston Office.

Recently, Dr. Sonken was director of the Division of Health Care Services in the Community Health Service of the Health Services and Mental Health Administration.

He will be responsible for determining the relative value of various dental care services, treatment priorities for groups of people with differing needs, and methods of organizing dental practice.

Dr. Sonken will also help evaluate alternative mechanisms for financing dental health services and assess the cost and administrative ramifications of establishing dental practice that utilizes full comple-

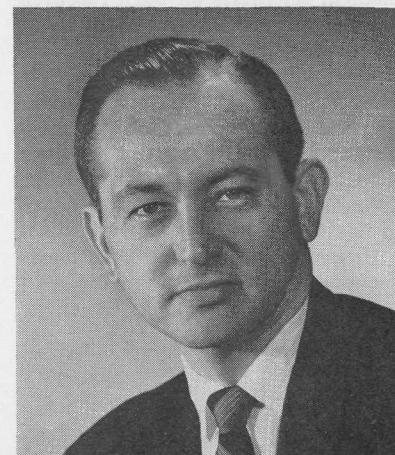
Irene 'Polly' Byrne Is Honored By Friends at Farewell Party

Irene "Polly" Byrne, secretary to the deputy director, Intramural Research Program, National Institute of Mental Health, has retired after 14 years in the Laboratory of Psychology and the deputy director's office. She was given a farewell lunch by friends and fellow workers.

Mrs. Byrne and her husband Charles, who retired last June after a Federal career spanning 37 years in the General Accounting Office, plan to spend part of their time traveling in the U.S.



Margaret Stollmeyer, Clinical Center nurse, recently retired after 30 years of Federal service—11 with the CC. She began her career at Marine Hospital, Staten Island, N.Y., served 3 years in the Army Nurse Corps overseas, and during World War II in the European Theater. Starting a second career, she will become a staff nurse at Holy Cross Hospital in Silver Spring.



Dr. Sonken will evaluate dental care services and will investigate methods for financing them.

ments of auxiliaries.

Dr. Sonken received a D.D.S. degree from New York University in 1955 and an M.P.H. degree from the University of California in 1965.

Dr. Kenneth P. Du Bois Dies; Was NIEHS Scientific Counselor

Dr. Kenneth P. Du Bois, professor of pharmacology and director of the Toxicity Laboratory in the Division of the Biological Sciences and the Pritzker School of Medicine, University of Chicago, recently died of cancer.

Dr. Du Bois was appointed to the Board of Scientific Counselors of the National Institute of Environmental Health Sciences in 1972.

Burn Injuries Nearly Double Since 1967; Research Leads to Specific Treatments

Third in a Series on Trauma Research Centers

During 1971, approximately two million people received burn injuries, almost double the number reported for 1967. Of the 300,000 who received burns severe enough to cause disability, 30,000 required prolonged intensive care for an average stay of 64 days.

Despite the excellence of intensive care units, 38 percent of the patients died from undefined biochemical and physiological changes or from latent fulminating infection.

Children under 15 experienced 29 percent of the deaths from burns, and generally, males outnumbered females.

The management of severe burns (30 percent total body surface) still remains a critical problem.

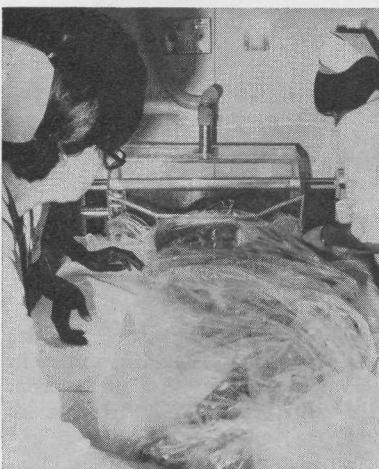
Although there are effective means of handling the acute shock phase by careful intravenous replacement of body fluid and other supportive measures, there has not been an appreciable decrease in the overall mortality.

Rather there has been a shift in the time of death. Many of those who survive the initial crisis later die from overwhelming infections or pulmonary or renal complications.

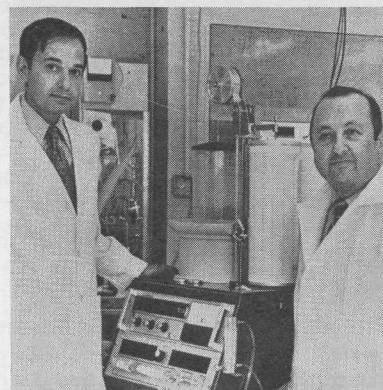
A concentrated effort by some medical scientists on burn research has led to more specific treatment for some of the problems.

Early suggestive evidence for the release of toxic materials after thermal injury has aroused the interest of investigators, who have isolated compounds from burned animals capable of causing death in healthy animals.

However, more research is need-



Studies on burned patients at the University of Mississippi's trauma center attempt to determine if wrapping injured portions of the body in plastic affects energy expenditure. Wrapping appears to reduce use of stored fuels, lowering energy given off. Many burn patients experience rapid weight loss. If covering burn wounds reduces the rate at which the patient's nutritional reserves are used, incidence of late burn deaths due to lack of food intake and accompanying infection may be lowered.



At Boston University, Dr. Herbert B. Hechtman (l), assistant professor of surgery, and Dr. Alexander M. Rutenburg, professor of surgery, examine a sophisticated machine they use to measure the functional lung capacity of critically ill trauma patients.

ed to determine if such a toxin appears in the burned human.

In the NIGMS Trauma Research Center at the University of Texas Southwestern Medical School, Dallas, one of the projects dealing with integrated response to trauma involves early resuscitation of burns.

The investigators have found that complete replacement of body fluids lost from severe burns within the first 24 hours of thermal injury prevents severe metabolic acidosis and cardiac depression.

Hyperglycemia is a common entity of the shock syndrome. Patients with severe burns or in hemorrhagic shock admitted to hospitals are routinely given insulin and glucose despite the fact that relatively little data are available to indicate exactly how it should be done.

Scientists at the TRC, Boston University Medical Complex, have devised a method to directly measure insulin secretion in man.

Currently the method is used to measure effects of adrenaline, corticosteroids, and other critical hormones on insulin secretion during hemorrhagic shock.

The investigators conclude that hyperglycemia results from adrenaline release, which inhibits insulin secretion from the pancreas.

In respiratory studies being done by these investigators, two new methods of measuring cardiac output have been devised.

First is the thermodilution technique, a procedure integrated with a computer, which calculates mea-

NIH Visiting Scientists Program Participants

1/22—Dr. Sylviane C. Gisselbrecht, France, Viral Biology Branch. Sponsor: Dr. Robert Mankler, NCI, Bldg. 37, Rm. 1B16.

1/23—Dr. Friedrich Wingert, Germany, Office of the Director. Sponsor: Dr. Arnold W. Pratt, DCRT, Bldg. 12A, Rm. 3033.

1/26—Dr. Terukazu Kawasaki, Japan, Endocrinology Branch. Sponsor: Dr. Frederic Bartter, NHLI, Bldg. 10, Rm. 8N214.

surements in five to 10 minutes.

The second is by ultrasound and is non-invasive. Using a Doppler probe, it measures blood velocity and makes a continuous recording of stroke volume.

The TRC at the University of Mississippi Medical Center, Jackson, has focused on energy metabolism in burn patients.

Through the use of indirect calorimetry, the researchers hope to provide standard measurements which can serve as guidelines for adequate nutritional therapy.

Measurements are being made of O₂ consumed, CO₂ expired, total calories expended, and types of foodstuffs being burned.

This group has found that plastic wrappings on burn areas substantially reduce wet heat loss and thus reducing caloric expenditure.

They also noticed that sponging a severely burned patient's body with cool water does not reduce fever but increases the energy expenditure because of shivering.

Intravenous feeding is considered a necessary adjunct to successful burn therapy.

Following such therapy, secondary infections which are frequently life threatening may occur. The team is involved in methods of preventing this by conducting studies on sites of infections, their numbers and types, as well as the effect of bacterial filters.



Dr. Charles O. Cranford has been named associate regional health director in DHEW's Region VI in Dallas, Tex. Prior to this assignment, he had been a special assistant for health policy development in the office of the HEW Assistant Secretary for Health and Scientific Affairs.

Symposium on Oogenesis Is Subject of New Book

A symposium on oogenesis—the formation of an ovum (egg) in the female—held in Baltimore in 1970 is the subject of a new book.

The book, entitled *Oogenesis*, is sponsored by NICHD's Center for Population Research in conjunction with the Department of Population Dynamics at Johns Hopkins University. It contains clinical and experimental research in this area by foremost specialists in the U.S. and abroad.

Subjects include the mechanism of meiosis (sexual cell division), the development of genetic information storage, and the endocrine regulation of oocyte maturation and release.

The 542-page book was edited by Drs. John D. Biggers and Allen W. Schuetz of Johns Hopkins.

Oogenesis is available at \$19.50 from the University Park Press, Chamber of Commerce Building, Baltimore, Md. 21202.



Dr. Clair L. Gardner (l), NIDR associate director for Extramural Programs, presents a group Superior Service Award to the Grants Management staff for outstanding and sustained performance. Recipients are (l to r): Patricia McCormac, Sandra Yolles, Jo-Lynn Colaizzi, Robert Bunch, Sara Rhodes, and Peggy Lee. Robert Ginsburg, section chief, stands at the right.

ASBESTOS

(Continued from Page 1)

and 1960s under conditions not allowed today.

Asbestos enters the body via two principal routes: the respiratory tract and the gastrointestinal tract.

Ignorance of the biological effects of asbestos in shipbuilding years during World War II is manifested in the increase of two previously rare diseases, mesothelioma and asbestosis.

Mesothelioma is a disease of the pleural and peritoneal membranes of the abdominal cavity. In the past this tumor was so rare that it wasn't separately coded in the International Classification of Causes of Death. Today it causes 7 percent of the deaths of asbestos workers.

The disease is the result of indirect occupational exposure to asbestos.

Asbestosis, a fibrosis of the lungs, is confined to direct occupational exposure. It is estimated that one million workers in the U.S. have or have had such experience.

The mineral doesn't cause any immediate trouble after it is inhaled. Asbestosis is governed by the "20-year rule"—death is usually observed 20, 30, 40 or more years after onset.

Asbestos disease is not a problem of a close group of workers as was once thought. In the con-



These samples of chrysotile asbestos—magnified 100,000 times—were found in ambient urban air.

struction industry alone, some 4 million workers may have had intermittent, low-level contact with asbestos products.

Only a small amount of asbestos is needed to cause cancer. Indirect exposure can cause the disease, as can living within one-half mile of an asbestos plant, living in the same house with an asbestos worker, or, as in the case of shipyard employees, working in the vicinity where asbestos products are used.

Soviet and U.S. Plan Program for Joint Study of Environmental Health Problems



During their stay in Research Triangle Park, the Russian delegation visited the home of Dr. Rall (far left) and met Congressman L. H. Fountain of N.C. (second from left). They also visited other research centers. L to r: Prof. Sidorenko, Dr. Akulov, Prof. Bokina, and Prof. Shandala.

On Jan. 23-29, a delegation of Soviet environmental health scientists visited the National Institute of Environmental Health Sciences in Research Triangle Park, N.C., to discuss joint problems relating to the environment and human health and to plan a program for cooperative studies of environmental health problems.

This meeting is the result of the U.S.-U.S.S.R. Medical Science and Public Health Cooperation Agreement between the U.S. and the Soviet Union.

Dr. David P. Rall, NIEHS Director, is the coordinator and head of the American delegation of the Environmental Health Delegation.

The five-member Soviet delegation is headed by its coordinator, Prof. G. I. Sidorenko, Director, Institute of General and Communal Hygiene of the Academy of Sciences of the U.S.S.R.

The other members are: Dr. K. I. Akulov, Deputy Minister, Rus-

ian Soviet Federated Socialist Republic, Ministry of Health, Prof. M. G. Shandala, Manager, Kiev Scientific-Research Institute of General and Municipal Hygiene, Prof. A. I. Bokina, Institute of General and Communal Hygiene, and Dr. Vladimir A. Popov, senior scientific worker, Institute of General and Communal Hygiene.

During their stay at NIEHS, the Soviet delegation visited several research laboratories including those devoted to studies on reproductive toxicology, microwave radiation, and mutagenesis.

At the week-long series of meetings the delegation heard NIEHS scientists and professors from U.S. universities discuss ecological problems and toxicological research. Both delegations exchanged views on their ongoing research.

At the end of the meetings at NIEHS, the Soviet delegation visited the Center for Disease Control in Atlanta, and from there enplaned for Washington, D.C.

On Wednesday, Jan. 31, the delegation came to NIH with Dr. Rall. Their tour of the campus included the laboratory of Dr. Henry M. Fales, chief of NHLI's Laboratory of Chemistry, the Division of Computer Research and Technology, where they were greeted by Dr. Arnold W. Pratt, DCRT Director, and the National Library of Medicine, where they were welcomed by Melvin S. Day, deputy director of NLM.

Howard Manly Named To Council to Improve Guard, Reserve Support

Howard F. Manly has been appointed to the National Advisory Council of the National Committee for Employer Support of the Guard and Reserve.

Mr. Manly, an Air Force reservist with the rank of Captain, is a special assistant to Dr. Randolph Jackson, chief of the Sickle Cell Disease Branch, National Heart and Lung Institute.

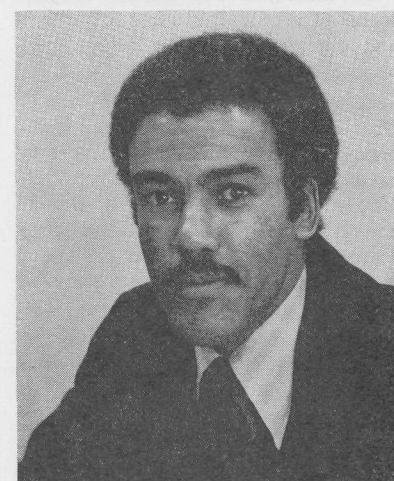
In his new public service assignment, Mr. Manly joins other prominent Americans on a special committee established by President Nixon to bolster the "total force" concept of national defense.

Chairman of the committee is James M. Roche, former chairman of the board of General Motors Corporation. Other members include prominent guardsmen, reservists, and community and business leaders from all parts of the country.

Mr. Manly will head the Subcommittee on Health Manpower and will develop guidelines that would offer former Commissioned Corps personnel of the Public Health Service the option of affiliating with one of the other uniform services in a reserve capacity.

The Advisory Council's organization meeting was held in Washington in December as part of the nationwide campaign kickoff. Top Government officials addressed several sessions.

The new council immediately began work on a national volunteer program to improve employer understanding of the importance of the reserve forces in our national defense. The effort is expected to take about a year.



Mr. Manly is available to speak at local organization meetings. He will explain the goals of the National Committee for Employer Support of the Guard and Reserve.



HEW FRIENDS, CO-WORKERS HONOR PHS SURGEON GENERAL. Richard P. Seggel (left), Acting Assistant Secretary for Health, HEW, and former NIH Associate Director for Administration, and Dr. Dorland J. Davis (rear center), NIAID Director, greet Surg. Gen. Jesse L. Steinfeld and his family at a farewell party at the



Naval Officers Club on Jan. 28. Dr. Steinfeld (right), formerly NCI Deputy Director who became Surgeon General in 1969, expresses his sincere appreciation to all his friends who honored him by their presence and to those with whom he had worked and spent many gratifying years of service.—Photos by Walter Monroe.

NIH SCIENTIST

(Continued from Page 1)

cal techniques in other areas, including the appendix, pancreas, and small bowel.

Dr. James O. Davis, an NHLI grantee, was cited for "proof of the involvement of the kidney in the production of aldosterone."

Dr. Davis, who is now professor and chairman of the Department of Physiology, University of Missouri, was one of the first persons hired by Dr. James A. Shannon, then NIH Director, to initiate a program at Bethesda to investigate heart failure.

Another awardee, Dr. Louis Lasagna, a consultant to the NHLI and an NIGMS grantee, is professor and chairman of the Department of Pharmacology and Toxicology and professor of medicine, University of Rochester.

Dr. Lasagna was cited "for patterns of clinical studies of drugs and elucidation of the ethical implications of their use."

Other grantees honored were: Dr. Robert D. Dripps, vice president for health affairs, University of Pennsylvania, funded by NIGMS, and Dr. Kenneth M. Brinkhouse, alumni distinguished professor of pathology, University of North Carolina, who is receiving support from NHLI.

Also cited were NCI grantee Dr. Howard M. Temin, Alumni Research Foundation professor of cancer research, University of Wisconsin, and NIMH grantee Dr. Daniel X. Freedman, Louis Block professor of biological sciences, University of Chicago.

Other Modern Medicine Distinguished Achievement awardees were: Dr. Walter Lincoln Palmer, University of Chicago; Dr. John A.

Cancer Society Appoints Committeeen from NIH

Four employees of the National Cancer Institute have been appointed to national committees with the American Cancer Society.

All have been active volunteers with the Maryland Division of the Cancer Society, and will serve on the national committees for one year.

The new committee members include Drs. Paul P. Carbone, Clinical Fellowship Committee; Gio B. Gori, Tobacco and Cancer Committee; Alfred S. Ketcham, Task Force on Breast Cancer Control, and Bayard H. Morrison III, Committee on Unproven Methods of Cancer Management.

Dr. Harold L. Stewart, a Cancer Institute consultant and former NCI Pathology chief, was appointed to the Committee to Advance the Worldwide Fight Against Cancer.

Louise Anderson, former chief of the Clinical Center Nursing Department and presently with HEW, will serve on the Service and Rehabilitation Committee.

NINDS Publishes Bibliography

Blood Level Determinations of Antiepileptic Drugs—Clinical Value and Methods has been published by NINDS to aid scientists and physicians who use the gas-liquid chromatography services provided by many laboratories.

For a copy of the publication contact the NINDS Information Office, Bldg. 31, Room 8A-03, NIH, Bethesda, Md. 20014, Ext. 65751.

Clements, University of California Cardiovascular Research Institute, and Dr. George H. Hitchings, vice president in charge of research at Burroughs Wellcome Company.

Drs. S. Stimler and M. Oxman Named DRR Program Directors

Dr. Suzanne S. Stimler has been designated program director of Biomedical Image and Image Processing Resources, and Dr. Michael A. Oxman, program director of Biomolecular Characterization Resources.

Both programs are in the Biotechnology Resources Branch of the Division of Research Resources.

The program which Dr. Stimler directs supports centers that deal with the application of electron optics technology to biomedical problems and computer image processing techniques to the analysis of biomedical images.

Included in this activity are high voltage (one million-volt) electron microscope, scanning electron mi-

Three Noted Advisors Join NINDS Council

Dr. Sidney Carter, a neurologist, Dr. James B. Snow, Jr., an otolaryngologist, and Cleo S. Wallace, a speech pathologist, have joined the National Advisory Neurological Diseases and Stroke Council.

Dr. Carter is professor of neurology at Columbia University, chief of the Child Neurology Services at Columbia Presbyterian Medical Center, and a past president of the American Academy of Neurology.

He was consultant to the Surgeon General from 1956 to 1960 for the NINDS Neurology Training Grant Committee and is now serving on the N.Y.C. Regional Mental Health Planning Committee.

Dr. Snow is professor and chairman of the Department of Otorhinolaryngology and Human Communication at the University of Pennsylvania School of Medicine.

He is editor of *Transactions of the American Broncho-Esophagological Association*, and has served NINDS as a special consultant in Communication Sciences and on its Communication Disorder Research Training Committee.

Mrs. Wallace is the executive director of the Wallace Village for Children in Broomfield, Colo., which she founded in 1943 for perceptually handicapped children.

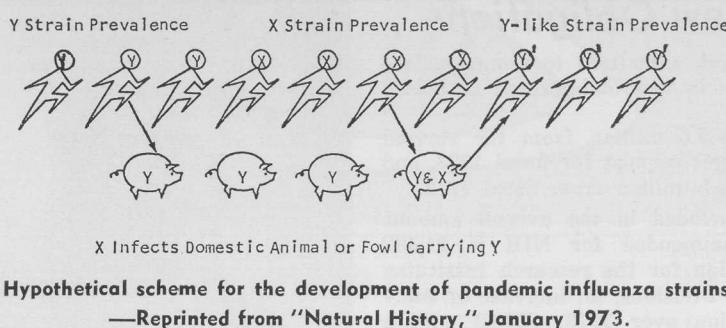
roscope, electron microprobe, and computer image processing resources.

The Biomolecular Characterization Resources program supports centers that make sophisticated analytical techniques available for biomedical research. This program includes resources in mass spectroscopy and nuclear magnetic resonance spectroscopy.



The seventh class of the U.S. Special Police recently completed its training courses. Graduation ceremonies were attended by (seated l to r) Ralph A. Stork, chief, Protection and Parking Branch, OAS; Cpl. Ralph A. Lewis, class representative; Capt. Richard F. Jones, Guard Force Commander; William H. Harris, Protection and Safety Management; James R. Reed, assistant director, PHS Hospital, Baltimore, guest speaker, Dr. Robert Q. Marston, former NIH Director. Graduates are (standing) Pfc. Harry W. Womack; Pfc. Gerald J. Watson; Pfc. Waymon J. Harrold, Jr.; Pfc. Carl E. Layton; Sgt. Howard S. Davenport; Pfc. James M. Gilloegly, high scholastic award winner; Pfc. James H. Nixon; Sgt. Clarence W. Bates; Pfc. Anthony McKinley, and William C. Wright, police training officer.

Viruses Adapted to Domestic Animals May Return to Primary Human Hosts



By Madeleine Jacobs

New influenza virus strains that periodically cause world-wide epidemics probably owe their existence to the barnyard, said Dr. Edwin D. Kilbourne who recently gave the 22nd annual Dyer lecture here.

Dr. Kilbourne is chairman of the Department of Microbiology at Mt. Sinai School of Medicine, New York City.

That new human influenza virus strains may come from domestic animals, such as swine and horses, is not in itself a new theory. However, in a radical departure from conventional thinking, Dr. Kilbourne suggested that these invading strains are not "true" animal influenza viruses, but artifacts of human viruses that have become adapted to domestic animals and "de-adapted" to man.

These artifacts can return to their primary host—man—only through a combination of events, he said, which includes "an ecologic niche to be filled as the contemporary human strain is suppressed by rising population antibody levels and fortuitous genetic recombination between human and animal strains."

Illustrates Story

The influenza expert illustrated what might occur: A prevalent human virus strain, Y, will be transmitted in man until antibody levels to Y become too high in the population for the virus to survive.

As it infects man, virus Y may, in rare cases, also infect some domestic animal or fowl species. When this occurs, the virus, through genetic alteration, loses its ability to infect man. In other words, it becomes "de-adapted" to man.

Virus Y continues to be transmitted from animal to animal or from fowl to fowl, and a "new" strain, virus X, replaces virus Y as the infectious agent in man. Virus X may then, also as a rare event, infect a domestic animal or fowl already carrying Y.

In the animal simultaneously infected with Y and X viruses, genetic interchange may occur to produce two new strains, Y-like and X-like viruses, both potentially capable of infecting man.

bination, in which strains of virus can exchange genes and produce new or modified strains.

These genes control the nature of spike-like projections on the outside of the virus. Called hemagglutinin and neuraminidase, these spikes are proteins and they represent the virus' antigens.

In addition to stimulating production of antibodies, the antigens also have specific functions related to infection and disease. Hemagglutinin functions by binding the virus to cells. Neuraminidase is associated with the release of the virus from infected cells so that it can spread and infect other cells.

When the genetic material of the virus changes through recombination or mutation, one or both of these antigens also can change.

If they do, the antibody that has been produced in response to the older antigens no longer protects individuals against the newer antigens and a whole population can become susceptible to bouts of the flu.

Problem Explained

One of the major problems in vaccine research is how to keep pace with or ahead of these antigenic changes.

In 1957 the Asian flu strain—which resulted in a very serious worldwide epidemic—reflected a major change in both the hemagglutinin and neuraminidase antigens.

The Hong Kong flu strain in 1968 reflected a major change in the hemagglutinin only and the ensuing epidemic was less severe than in 1957.

The current epidemic strain, the so-called London flu, reflects only a minor alteration in the antigens of the 1968 Hong Kong strain.

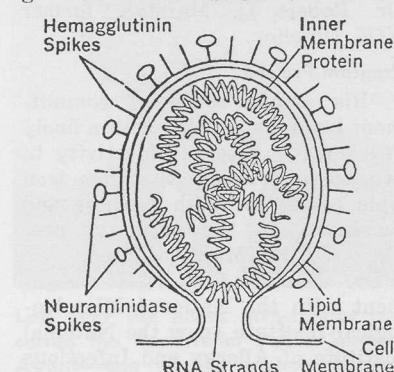
The change is so minor that the London flu is not considered a distinct strain but rather a subtype of the 1968 Hong Kong strain.

Yet the London flu antigens are just different enough that the Hong Kong flu vaccines are rendered somewhat less effective than they had been against the original virus.

Dr. Kilbourne's latest approach to influenza vaccines relies on manipulation of these very antigens that are at the root of the problem.

His research team—in conjunction with Drs. Robert Couch and Julius Kasel at Baylor University (formerly at NIAID) and Dr. John Gerin of the NIAID-AEC Molecular Anatomy Laboratory—have developed a new kind of recombinant virus.

This virus contains the hemagglutinin from a strain of horse



Influenza virus schematic drawing.

influenza and the neuraminidase from the Hong Kong strain.

The scientists reasoned that this virus vaccine when injected into an individual would stimulate antibodies to the neuraminidase of Hong Kong flu but not to the hemagglutinin. The individual would acquire a "neuraminidase-specific immunity."

When exposed to natural Hong Kong flu virus, he should become infected. However, the infection should be limited by anti-neuraminidase antibody and he should escape the full-blown disease. Hopefully, this modified natural infection would establish a durable immunity effective against both viral antigens, Dr. Kilbourne said.

Drs. E. Leduc, C. Schneyer Join General Medical Sciences Council

Drs. Elizabeth H. Leduc and Charlotte A. Schneyer have accepted membership on the National Advisory General Medical Sciences Council.

Dr. Leduc is professor of biology, Division of Biological and Medical Sciences, Brown U.

Dr. Schneyer serves as professor, Department of Physiology, U. of Alabama Medical Center.



Dr. Frank J. Rauscher, Jr. (l), NCI Director, greets Dr. Carl G. Baker. A portrait of Dr. Baker, Director of the National Cancer Institute from 1969 to 1972, was unveiled last month before an audience which included his family and NCI staff members. In keeping with a long-standing NCI tradition, the portrait will hang in the Office of the Director with those of former Directors.

Dr. Gibson Leaves EEO; Replaces B. Stephenson In CO Personnel Post

Dr. Colvin L. Gibson, the Equal Employment Opportunity Officer at NIH since 1967, has been appointed Assistant to the Director for Commissioned Officers in the Office of Personnel Management.

He replaces Boyd W. Stephenson, who retired Feb. 1 after more than 11 years at NIH and 25 years in the Public Health Service.

A Qualifications Review Board is evaluating applicants for the post of EEO officer. Spencer Logan, deputy EEO officer, has been designated acting EEO officer until Dr. Gibson's successor is appointed.

When announcing Dr. Gibson's new assignment, the "great strides" EEO has taken at NIH under his leadership were cited by Dr. Robert Q. Marston, former NIH Director.

Program Praised

"His strong sense of commitment has been coupled with a finely developed quality of objectivity to produce a program that has won wide praise for both fairness and sensitivity to the needs of people . . .," Dr. Marston noted.

Dr. Gibson's first NIH assignment with the National Microbiological Institute (now the National Institute of Allergy and Infectious Diseases) took him to Guatemala, Central America, and Memphis, Tenn., to study such parasitic diseases as onchocerciasis and toxoplasmosis.

In 1958 he came to the Bethesda campus to administer various NIAID grant and contract programs. He was assigned to the EEO position on a part-time basis in 1967, and left NIAID the following year to become Assistant to the Director, NIH, with full-time responsibility as EEO officer.

While EEO officer, he served as



Dr. Gibson, who holds the rank of scientist director, has been an NIH employee and a PHS commissioned officer since 1948.

FY 1974 Budget Request for NIH Totals Almost \$2 Billion in New Obligations

The President's Fiscal Year 1974 budget, submitted to Congress last Jan. 29, includes a total of \$1,965 million in new obligational authority for the National Institutes of Health.

The total represents a reduction of \$33.6 million from the revised budget request for fiscal 1973, and \$252.1 million from fiscal 1972.

Included in the overall amount recommended for NIH is \$1,532 million for the research Institutes and Divisions, an increase of \$48.4 million over 1973; \$386.2 million for the Bureau of Health Manpower Education, a decrease of \$58.2 million over last year's total, and \$25 million for the National Library of Medicine (no change).

Research Grants Increased

New obligational authority for the research I/Ds provides \$824.5 million for research grants (up \$12.1 million), of which \$580.8 million is for regular grant programs, and \$243.7 million is for special research grant programs.

Another \$524.3 million is provided for direct operations (up \$56.2 million). This amount includes \$290.3 million (an increase of \$44.4 million) for research and development contracts, \$127 million (up \$5.9 million) for laboratory and clinical research, \$56 million (up \$5 million) for research management and program services, and \$44 million (an increase of \$734,000) for collaborative research and support.

Additionally, the research Institutes and Divisions total provides \$32.1 million (a decrease of \$5 million) for fellowships, and \$97 million (a decrease of \$16 million) for training grants.

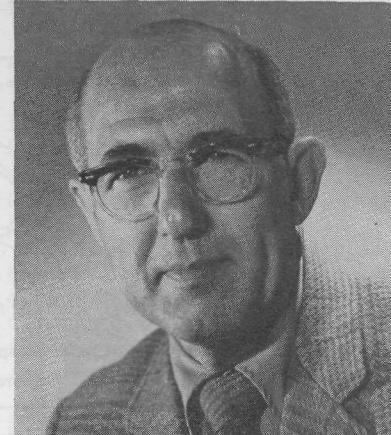
Also included is \$34 million (an increase of \$30 million) for the Cancer Control Program, and \$20 million (a decrease of \$29 million) for construction of cancer research centers and other facilities to study cancer causing agents.

BHME Breakdown

Of the \$386.2 million recommended for the Bureau of Health Manpower Education, the bulk—\$271.2 million (a decrease of \$14.1 million)—is for institutional assistance, student aid, and construction assistance in the medical, dental, and related health professions.

Another \$53 million (a decrease of \$42 million) is provided for institutional, student, and construction assistance in the field of nursing; while \$58 million (a decrease of \$2.6 million) is allocated for other health manpower needs.

The \$25 million budget recommendation for NLM includes: for medical library grants, \$6.5 mil-



Dr. Louis W. Wachtel has been appointed chief of the Biomaterials Program in the extramural programs of the National Institute of Dental Research. The program supports research and training to develop new, improved dental materials. Dr. Wachtel was chief of the Caries Contract Program, and previously served as deputy to the director of the NIDR National Caries Program.

Research Institute Built With Aid of NCI Funds

The National Cancer Institute announced the award of a contract providing initial 2-year support totaling \$2.1 million to the American Health Foundation to assist in the construction of a new Health Research Institute.

The new Institute, to be planned and built by the American Health Foundation, will be located in Westchester County, near New York City. It will focus on cancer prevention research for NCI's National Cancer Program.

Research will stress environmental causes of cancer, which are believed responsible for nearly 90 percent of all cancers.

Studies are planned on the influence of diet, hormones, air pollution and other environmental factors on the onset and development of cancer.

A major project on smoking and health is underway to develop and monitor the effectiveness of a less hazardous cigarette.

Dr. Ernest L. Wynder is President and Medical Director of the Foundation. Dr. Gio B. Gori, NCI's associate scientific director for Program, Division of Cancer Cause and Prevention, will be the project officer.

Ground-breaking for the new research facility will begin early in 1973; the new facilities will more than double the existing laboratory space.

lion; Lister Hill Center, \$1.9 million; National Medical Audiovisual Center, \$2.6 million; library operations, \$8.4 million, and toxicology information, \$1.5 million.

*Funds for SAO are appropriated to the Office of International Health, DHEW, but are included with NIH appropriations for presentation purposes only.

chairman of the NIH Equal Employment Opportunity Council, a representative employee group which advises the NIH Director.

Dr. Gibson feels that two major accomplishments have taken place in the area of equal employment opportunity during the years he served as EEO officer.

"First, there is a greatly increased awareness on the part of management and employees that there are problems of employment equity to be resolved," he said. "People now recognize what EEO means."

"Secondly, the establishment of the EEO Council and EEO committees in the Bureaus, Institutes, and Divisions represents a positive contribution of employees to the identification and resolution of these personnel problems," he added.

Mr. Stephenson, whose retirement plans include traveling, worked with PHS commissioned officers for most of his Federal career.

A pharmacist educated at the University of Kentucky, he is a member of the American Pharmaceutical Association, the American Society of Hospital Pharmacists, and the Association of Military Surgeons.