Prof. Ragnar A. Granit, Scandinavian Laureate, To Be Fogarty Scholar

Dr. Ragnar A. Granit, distinguished neurophysiologist and Professor Emeritus of the Karolinska Institute in Stockholm, will become a John E. Fogarty Scholar-in-Residence. He has been working on problems of neuromuscular control. Schorl-in-Residence. He has been appointed for a 6-month period beginning Oct. 15.

Professor Granit received the Nobel Prize in Physiology and Medicine in 1967, for his findings on the chemical and physiological processes in the eye.

His early research in psychophysics and, later, in electrophysiological work has resulted in a number of outstanding scientific contributions. In recent years he has devoted considerable time to problems involving neuromuscular control.

Professor Granit, now Professor Emeritus of Karolinska Institute, joined that organization in 1945. In recent years he has been working on problems of neuromuscular control.

Established Two Posts

Professor Granit joined the Karolinska Institute in 1940; he was professor of Neurophysiology. From 1945 until his retirement in 1967, he was also Director of the Nobel Institute for Neurophysiology.

From 1963 to 1965 he served as President, Royal Swedish Academy of Sciences. In 1965 he was appointed to the Nobel Institute in Stockholm, to become a John E. Fogarty Scholar-in-Residence. He has been working on problems of neuromuscular control.

Researchers to Present Views on Man And Environment at Biological Congress

Symposia, workshops, exhibits and other panel discussions focusing on man and the environment will be featured at the Second National Biological Congress, to be held Oct. 23 to 26, at the Fontainebleau Hotel in Miami Beach.

The meeting, under the auspices of the American Institute of Biological Sciences, will bring together biologists from 34 societies.

NIH researchers taking part in the programs are Dr. John L. Sever, chief, Section on Infectious Diseases, National Institute of Neurological Diseases and Stroke; Dr. Philip A. Corfman, Director for Population Research, National Institute of Child Health and Human Development, and Arthur A. Campbell, deputy director of the NICHD Population Center.

Dr. Sever is chairman of the Oct. 24th afternoon session on "Influences of Viruses, Nutrition and Drugs on Human Development." He will deliver the opening remarks.

Dr. Corfman will head the Oct. 25th morning session on "Population Problems; Search for Solutions." At this session Dr. Campbell will discuss "Definition of Problems."

Organizations conducting symposia, workshops, exhibits and panels will be: American Association for the Advancement of Science, American Chemical Society, American Geophysical Union, National Academy of Sciences, National Association of Science Writers, National Institute of Arthritis and Metabolic Diseases, National Institute of Child Health and Human Development, National Institute of Dental Research, National Institute of Environmental Health Sciences, National Institute of General Medical Sciences, National Institute of Mental Health, National Institute of Neurological Diseases and Stroke, and National Institute of Nursing Research.

NIH Investigators Speak At National Academy Of Sciences Meeting

Several NIH scientists will speak at the autumn meeting of the National Academy of Sciences, to be held Oct. 25 to 27, in the Academy Auditorium, 2101 Constitution Ave., N.W., Washington, D.C.

The second day agenda (Tuesday, Oct. 26) will include a presentation on "New Evidence as the Bases for Increased Efforts in Cancer Research." Dr. Robert J. Huebner, National Cancer Institute, is chairman for the session.

Speakers at this assembly include Drs. Frank J. Rauscher and George J. Todaro, NCI, and Dr. Wallace P. Rowe, National Institute of Allergy and Infectious Diseases.

Dr. Gordon C. Zubrod, NCI, will be among the speakers continuing the topic at the afternoon session.

At another Tuesday afternoon session, Dr. C. B. Anfinsen, National Institute of Arthritis and Metabolic Diseases, will be one of the investigators discussing "Models for Enzymatic Reactions."

The public is invited to attend. For further information call the NAS information office, 961-1511.

Dr. Kenneth M. Endicott Receives Special Award For Cancer Research

Dr. Kenneth M. Endicott, Director of the Bureau of Health Manpower Education since 1969, has received a special award from the American Association for Cancer Research.

Dr. Endicott was Director of the National Cancer Institute from 1960 to 1969.

He was cited for his work as "an outstanding pathologist, scientist and public health officer" in combating cancer through chemotherapy and in establishing NCI's viral cancer program.

The award, presented only seven times in the association's 65-year history, was given to Dr. Endicott in his office, by Dr. Emil Frei, III, president of the AACR.

Dr. Wyndham D. Miles, NIH Historian, Named Winner of Dexter Award

Dr. Wyndham D. Miles, NIH historian, has been named the winner of the Dexter Award in the History of Chemistry for 1971.

The international award was presented at the History Divisional Luncheon on Sept. 15 at the 162nd national meeting of the American Chemical Society in Washington, D.C.

Dr. Miles received his B.S. degree from the Philadelphia College of Pharmacy in 1942, his M.S. degree from Penn State in 1944, and his Ph.D. degree in the History of Science from Harvard University in 1955.

Experience Noted

He was an instructor and assistant professor of Chemistry at Penn State from 1944 to 1953, and served as historian of the U.S. Army Chemical Corps from 1953 to 1960.

Dr. Miles worked with the National Archives and was historian of the Polaris Project for the Navy prior to 1962.

He has long been active in the American Chemical Society, both on the national and local level. He is a former chairman of the History of Chemistry Division.

The $1,000 award was established in 1955 by the Dexter Chemical Corporation and is administered by the American Chemical Society's History Division.
Davis Plan Is 12 Years Old; Celebrate! Contribute to Patient Emergency Fund

The Davis Plan campaign is entering its 12th season this year. To celebrate, Plan originator, James B. Davis, Director of the Office of Administrative Services, opened this year's drive by introducing a new recurring character, Scrooge.

That Dickens character urges all NIH employees not to send Christmas cards to co-workers this year. Instead, Scrooge suggests contributing that money to the Patient Emergency Fund.

The Davis Plan for the Fund began in 1960. Mr. Davis decided the best way to say "Seasons Greetings" to his fellow employees was to make a donation to the CC patients. His co-workers liked the idea and also contributed.

The Plan is now a tradition and has even spread to surrounding neighborhoods. Each year it is heralded in local newspapers as a unique Christmas-giving idea. Several local community groups contribute regularly.

The Patient Emergency Fund, administered by the Clinical Center Social Work Department, assists patients with financial aid that cannot be met with Federal appropriations.

Although Clinical Center patients receive cost-free medical care, the high cost of living in this area may create a financial strain for a family member.

Or, perhaps, the cost of prior hospitalization and medical bills left patients without sufficient sums to meet even small emergency needs.

Fund Explained

John Roatch, chief of the Social Work Department, explained that the Fund may be used for something as small as a package of razor blades, a phone call home, or for help in meeting the cost of room and board in the area for a patient's relative.

He stated that rising costs and increasing requests for emergency funds—there was a 30 percent increase this past year—are beginning to deplete resources.

This year, Davis Plan contributions are especially welcome—it's the gift that truly lasts throughout the year.

Sending a letter home is an important event in the life of a young patient whose pennies don't quite meet the postage. NIH employees—through the Davis Plan—help to make up deficit.

Report Shows Youngest, Oldest Drivers Safest

Who's the safest driver of them all? The most unsafe?

Last year D.C. moving traffic violations showed that the youngest and oldest drivers were safest.

Drivers aged 16 and 17 accounted for .7 percent of total drivers but .1 percent of violations, and 18-to-19-year-olds accounted for 2.5 percent of the total, 5.2 percent of violations.

Those drivers aged 20-24 accounted for 13.1 percent of total, 23.7 percent of violations; 25-34, 28.5 percent of total, 32.5 percent of violations, and 35-64, 48.4 percent of drivers, 38.8 percent of violations:

Drivers who were 65 and older accounted for 6.8 percent of drivers, 1.7 percent of violations.

NIH Television, Radio Program Schedule

Radio

DISCUSSION: NIH
WGMS, AM—570—FM Stereo 103.5—FM Stereo 103.5—FM Stereo
October 15
Dr. Harold M. Schoolman, special assistant to the Director, NLM
Subject: Regional Medical Libraries

October 22
Dr. Lois K. Cohen, DDH
Subject: Social Sciences in Dentistry

Interview takes place at intersection, Library of Congress concerts.
Edith A. Jones Receives Nutrition Award From American Dietetic Ass'n

Edith A. Jones, chief of the Clinical Center Nutrition Department, has received the Marjorie Hulsizer Copher Award—the highest honor given by the American Dietetic Association.

The award was presented to Miss Jones at the organization’s annual banquet held in Philadelphia Oct. 7.

Established by the late Dr. Glover Copher in memory of his wife, the prize consists of a plaque and one year’s income from a $30,000 fund.

Miss Jones received the award “In recognition of her inspiring leadership in the dietetic profession . . . her administrative skill, management ability, and therapeutic knowledge, exemplified as chief, Nutrition Department, National Institutes of Health . . . and her sincerity, warmth of personality, good humor, and continuous deep concern for others.”

She received her B.S. degree from the University of Alabama, her M.S. degree in Nutrition from the University of Tennessee, and interned at the Johns Hopkins Hospital School of Dietetics.

During World War II, Miss Jones worked in Army hospitals and later became dietitian in charge of a 1500-bed institution in England.

She returned to Johns Hopkins after the war as dietitian in charge of the Pediatric Section, and later of the School of Dietetics.

Miss Jones joined the Public Health Service as a nutritionist in the Bureau of State Services. Later she became a Dietitian Consultant with the Bureau of Medical Service. She has been chief of the CC Nutrition Department since it opened in 1953.

Miss Jones has received a Founder’s Fellowship and Award of Achievement from Alpha Chi Omega, a Distinguished Service Award from the School of Home Economics, University of Alabama, and the McLester Award for outstanding achievement in the field of applied nutrition and dietetics from the U.S. Association of Military Surgeons.

Most recently she received the PHS Meritorious Service Medal in June 1971.

Miss Jones has been listed in Who's Who in America, Who's Who of American Women, and Personalities of the South.

Dr. Charles Lowe Wins Clifford G. Grulee Award

Dr. Charles Upton Lowe, NICHD scientific director, has been named the 1971 recipient of the Clifford G. Grulee Award presented annually by the American Academy of Pediatrics for outstanding service to the organization.

Dr. Lowe will receive the gold medal award during the Academy’s annual meeting in Chicago, Oct. 16-21.

He will also be honored for his 14 years of service with the AAP Committee on Nutrition, particularly for his contributions as committee chairman from 1963 to 1969.

Helped Establish Committee

Dr. Lowe helped establish the committee as a nationally accepted authority.

He is especially recognized for his work on three statements published in 1967. These were:

Proposed Changes in Food and Drug Administration Regulations Concerning Formula Products and Vitamin-Mineral Dietary Supplements for Infants; Compulsory Testing of Newborn Infants for Hereditary Metabolic Disorders, and Nutritional Management in Hereditary Metabolic Disease.
NHLI Develops Programs For Evaluating Methods To Detect Hypertensives

Pilot programs to develop and evaluate methods of detecting and caring for hypertensive persons have been started by the National Heart and Lung Institute.

Nine communities throughout the U.S. were chosen to take part in the research on high blood pressure. Medical doctors connected with universities and hospitals in these areas will head each program.

Dr. Richard Remington, associate dean, School of Public Health, University of Texas, will direct the Statistical Coordinating Center for the study.

Agents Reduce Pressure

Effective anti-hypertensive agents to reduce high blood pressure are available. But past research has shown that these therapies must be applied continuously if death and disability from the long-term effects of hypertension on the heart, brain, or kidneys is to be reduced as well.

Furthermore, blood pressure may rise and persist at abnormally high levels for many years without altering one's subjective sense of health until there is serious damage, typically a stroke or heart attack years later.

The problem of motivating hypertensives to seek and stay on therapy is the first phase of the pilot programs. Phase II should take at least a year.

Details Given

About 500 or more hypertensives will be identified in each community by repeated blood pressure measurements.

Those with persistently high levels, or hypertension, will be referred to medical care and health education programs and periodic long-term follow-ups.

Dr. J. Moskowitz Named DRG Grants Associate

Dr. Jay Moskowitz has joined the Grants Associates Program of DRG for a year of training in grants administration.

Before joining the Division of Research Grants, Dr. Moskowitz served with the Public Health Service Commission Corps as a scientist in the Laboratory of Chemical Pharmacology, NHLI.

An alumnus of Queens College, N.Y., he received his Ph.D. degree in 1967 in Biomedical Sciences from Brown University.

Dr. Moskowitz was supported in his predoctoral studies by a USPHS Traineeship, and a Brown University Fellowship. In 1969 he was selected as a Pharmacology-Toxicology Research Associate Trainee with NIGMS.

He is a member of Sigma Xi, the Society for Experimental Biology and Medicine (D.C. Section), and the American Association for the Advancement of Science.

Dr. Moskowitz's field of interest is the involvement of cyclic adenosine monophosphate (cyclic AMP) in sympathetic systems.

A major staff objective will be to identify ways of minimizing dropouts from the program.

If enough of the hypertensives are willing to maintain their clinic attendance and continue medications, then Phase II efforts can be undertaken.

It is estimated that this phase may take several years.

The total number of Americans with elevated blood pressure—both diagnosed and undetected—is now estimated, on the basis of the National Health Examination Survey, to be about 20-25 million.

NCI Project to Improve Survival Time of Lung Cancer Patients Starts

A new HEW-supported project to improve survival time of lung cancer patients by applying early detection methods will be conducted at the Mayo Clinic. This and a related study at the Johns Hopkins University are being funded by National Cancer Institute contracts to improve the diagnosis of lung cancer.

In the study at the Mayo Clinic, the project director, Dr. Robert S. Fontana, and his co-workers will screen persons at high risk of developing lung cancer: men 45 years of age or older who smoke at least one pack of cigarettes per day. The investigators will examine two groups, each of 3,000 men.

After an initial examination, participants of the first group will return for follow-up examinations according to their individual habits of going to a doctor. The second group will be closely controlled and participants will return every 4 months for follow-up examinations.

Examinations Listed

The two groups will undergo chest X-rays and microscopic examinations of cells obtained from deep cough sputum samples, the only procedures so far proved useful in detecting presymptomatic lung cancer.

This part of the study, designed to continue for at least 5 years, will yield information on the natural history of lung cancer and the amount of time and money needed for such a program.

This will be the first large-scale, prolonged surveillance of persons at high risk to lung cancer, studied with chest X-ray and sputum cytology.

The investigators will also evaluate techniques for locating cancers too small to be seen by X-ray but whose presence is indicated by cancer cells in the sputum.

With the aid of a bronchoscope, the investigators will collect cells from lung tissue by a brushing technique. They will use a new type of disposable brushes with controllable tips and protective sheaths. The cells will then be studied under a microscope.

Special X-ray techniques, employing materials such as radiopaque tantalum dust for sharper contrast between cancerous and surrounding normal tissue, will also be used.

In another part of this study, Mayo Clinic investigators will study various new but as yet unproven procedures, including the use of radioactive materials to locate lung tumors and the use of special staining procedures, not previously used on lung tissue, to help visualize tumors with the aid of a bronchoscope.

They will apply these tests to about 30 patients known to have primary lung cancer and 50 persons known to be free of the disease. If these procedures are effective in initial tests, they will be evaluated in larger study groups.

Some of the procedures used in this study were developed and improved in contract-supported work at Johns Hopkins University.
Complete Amino Acid Sequence—First of Six Known Protein Components of Lipoproteins—Worked Out

Amino acid sequence of apoLP-alanine a major protein component of lipoproteins.

The complete amino acid sequence of the first of six known protein components of lipoproteins, the transport vehicles for most of the fatty substances (lipids) in human blood, has been worked out by Drs. H. Bryan Brewer, Jr., Richard S. Shulman, Peter Herbert, and by Rosemary Ronan and Katherine Wehrly, of the National Heart and Lung Institute.

Their findings were reported by Dr. Brewer, head of NHLI's Section on Peptide Chemistry, on Sept. 10 at the Fourth International Symposium on Drugs Affecting Lipid Metabolism, held in Philadelphia, Sept. 7-11.

The three classes of lipids—cholesterol, triglycerides, and phospholipids—travel in the circulation in combination with proteins, which confers solubility on fatty substances that would otherwise be insoluble in plasma.

These fat-protein complexes, called lipoproteins, are produced mainly by the liver and gastrointestinal tract.

Lipoproteins are divided, somewhat arbitrarily, into three classes on the basis of density.

**Classes Listed**
- The lightest are the very-low density (VLDL or pre-beta) lipoproteins, which contain only 2-15 percent (by weight) of protein, the remainder being lipid.
- Low-density (LDL or beta) lipoproteins contain 20-25 percent protein, and high density (HDL or alpha) lipoproteins contain 45-55 percent protein.

Each lipoprotein transports a mixture of lipid, so that triglyceride, cholesterol, or phospholipid may travel in combination with lipoproteins of any weight class.

However, as it works out, VLDL transports most of the triglycerides of plasma, LDL most of the cholesterol, and HDL most of the phospholipid.

High-density lipoproteins and the lipids that they carry do not appear to be atherogenic; and, in fact, a robust HDL fraction may actually confer some protection against the development of atherosclerosis.

However, excessive blood levels of VLDL result in elevated blood triglycerides and excessive blood levels of LDL result in elevated blood cholesterol, both of which are strongly associated with premature development of atherosclerosis and coronary heart disease.

During the past few years, studies have shown that blood lipid abnormalities can be best considered in terms of lipoprotein abnormalities.

**Separate Proteins Revealed**
- During the past three years, scientific interest has focused as much on the protein content of lipoproteins as on the lipids that they carry.
- These studies have revealed that at least six separate proteins, called apoproteins, are components of the lipoproteins of human plasma.
- As is the case with lipid, each lipoprotein class may have several apoprotein constituents, some of them present in other lipoprotein classes.

- The isolation and purification of the various apoproteins of human lipoproteins constituted a step toward 1) identifying and classifying genetic factors operative in lipoprotein synthesis and in hereditary forms of hyperlipoproteinemia and, 2) shedding new light on lipoprotein structure (still poorly understood) and the differing affinities of the various lipoproteins for the lipids of human plasma.
- Also, 3) clarifying the specific mode of action of lipid-lowering diets and drugs, and 4) bringing to light other functions of apoproteins, other than conferring solubility on the lipids being transported, that may have great importance in lipid metabolism.

**Edman Procedure Performed**
- The Edman procedure was performed on intact apoLP-alanine and also on fragments of this protein molecule obtained by using the protein-digesting enzyme trypsin to break the peptide chain at various places.

The procedures were performed manually and also automatically, using the Beckman Sequencer, which chops off one terminal amino acid residue each time it is fed into it.

The individual amino-acid links were identified by gas or thin layer chromatography, and mass spectroscopy.

Analysis and comparison of the data from the intact protein and (See AMINO ACID, Page 6)
Dr. James A. Peters has been appointed deputy scientific director, Etiology, National Cancer Institute. He will assist Dr. Frank J. Rauscher, Jr., in managing and coordinating Etiology activities in the Institute as well as activities relating to outside agencies.

AMINO ACID
(Continued from Page 5)

the fragments resulting from trypsin digestion indicated the exact amino acid sequence of the apoprotein, which consists of 79 amino acids. A short carbohydrate side chain is attached to the peptide chain at the 74th amino acid link (threonine). A number of other lipoprotein apoproteins appear to have carbohydrate side chains.

Their functions, if any, as determinants of apoprotein or lipoprotein function or as factors possibly affecting the antigenic behavior of Lipoproteins are presently under study.

ApoLP-alanine is the first apoprotein of a human lipoprotein whose chemical structure has been precisely defined. Doubtless, the other five known apoproteins will be similarly characterized in the near future.

From this work may spring new understanding of the transmission of lipoprotein function and importance to medical understanding of lipoprotein function and metabolism and of the role of these lipid-transport particles in the genesis of atherosclerosis.

NIH Visiting Scientists
Program Participants
9/1—Dr. Rong S. Chen, Taiwan, Analytical and Synthetic Chemistry Branch. Sponsor: Dr. Lawrence Fishbein, NIEHS, Research Triangle Park, N.C.
9/1—Dr. Malcolm P. Tyror, U.S.A., Metabolic Diseases Branch. Sponsor: Dr. Scott M. Grundy, Phoenix Clinical Research Section, NMD.
9/2—Dr. William B. Marks, U.S.A., Laboratory of Neural Control. Sponsor: Dr. Karl Frank, NINDS, Bldg. 36, Room 5A29.
9/5—Dr. R. A. K. May, Australia, Laboratory of Neural Control. Sponsor: Dr. Robert E. Burke, NINDS, Bldg. 36, Room 5A26A.
9/12—Dr. Ritva Poukka Evarts, Finland, Laboratory of Nutrition and Endocrinology. Sponsor: Dr. John G. Bieri, NIAMD, Bldg. 10, Room 5N102.
9/12—Dr. Ryoko Tsukui, Japan, Laboratory of Biophysical Chemistry. Sponsor: Dr. David W. Gaylor, NIEHS, Research Triangle Park, N.C.
9/13—Dr. A. Bhakdinaronk, Thailand, Human Genetics Branch. Sponsor: Dr. Jerry D. Niswander, NIDR, Bldg. 30, Room 106.
9/19—Dr. Takashi Tokuyama, Japan, Laboratory of Chemistry. Sponsor: Dr. Bernhard Witkop, NIMH, Bldg. 4, Room 301.
9/20—Dr. Kambhampati C. Rao, India, Biometry Branch. Sponsor: Dr. David W. Gaylor, NIEHS, Research Triangle Park, N.C.

Naturally Infected Cats Harbor Parasite;
Toxoplasmosis Transferred by Filth Flies

Naturally infected stray cats harbor the parasite, *Toxoplasma gondii*, and filth flies have been shown to pick up cat feces.

These findings — important for an understanding of toxoplasmosis — have been reported by Dr. Gordon Wallace of the National Institute of Allergy and Infectious Diseases.

Last year NIAID scientists and grantees identified the domestic cat as a possible reservoir of toxoplasmosis by infecting animals in the laboratory.

*Occurs Naturally in Strays*

Now, Dr. Wallace, of NIAID's Laboratory of Parasitic Diseases, Pacific Research Section, Hawaii, has shown in two separate studies that *Toxoplasma gondii* occurs naturally in stray cats on the island of Oahu, and the common house fly and the Oriental blow fly can contaminate human food with toxoplasma parasites picked up from cat feces.

These findings further implicate the domestic cat as a reservoir for the spread of disease and explain transmission of the infection to man.

It has been known for some 45 years that this single-cell, protozoan, *T. gondii*, produces disease in man and animals. Although usually mild, the disease can result in blindness, or even death. The outcome of a congenital toxoplasmosis infection can be severe birth defects or stillbirth.

*Parasite Isolated*

In the August issue of *Journal of Infectious Diseases*, Dr. Wallace describes his isolation of the infectious form of the toxoplasma parasite, the oocyst (or fertilized egg) in feces of 6 of 1,023 stray cats.

Blood studies showed that 29 percent of 320 cats judged to be older than 6 months had antibodies to the parasite, indicating previous infection. Antibodies were found in only 7 percent of the cats under 6 months of age.

The relative lack of antibody in the young cats can be explained by the hypothesis that toxoplasmosis in cats is usually acquired through the ingestion of an intermediate host of the parasite, such as a rodent or bird. Ordinarily, a young cat is not too successful in capturing these.

Although a very small percentage of the cat feces examined contained infectious oocysts, the rate assumes more significance when one considers the number of domestic cats in the United States and other countries.

The Hawaiian Island of Oahu alone has an estimated cat population of 60,000, about 50 percent of these being strays.

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In separate experiments, reported in the May issue of *American Journal of Tropical Medicine and Hygiene*, Dr. Wallace showed that two species of adult filth flies would, when given access to cat feces contaminated with toxoplasma oocysts, transfer the oocysts to small quantities of skim milk.

In addition, toxoplasmosis infection developed in a number of mice which were force-fed the contaminated milk.

Dr. Wallace notes that the habit of cats to partially bury their feces in a moist place would tend to preserve the toxoplasma oocysts, yet leave them accessible to flies.

Since cats are capable of excreting oocysts under natural circumstances, Dr. Wallace believes that flies should be considered potential vehicles for the transmission of the parasite to man.

Tickets for Illegal Parking Exceed Number Anticipated

New parking regulations have been in force since April 1, but employees and visitors continue to park illegally - at the rate of 40 to 60 tickets issued per day.

This figure far exceeds the number anticipated, less than 10 each day.

Employees are urged to comply with the NIH rules and regulations concerning parking.

Copies of the regulations are available from the Parking and Traffic Control Section, Bldg. 31, Room B1-C-11.

Dr. R. B. Rifkind Appointed NHLI Project Officer, Lipid Clinics Program

Dr. Basil M. Rifkind has been appointed project officer for the recently created National Heart and Lung Institute's Lipid Clinics Program. He will coordinate and review activities of the NHLI contract-supported clinics.

Dr. Rifkind comes to NHLI from Glasgow, Scotland, where he was Senior Registrar in Medicine to the Glasgow Teaching Hospitals at the Glasgow Royal Infirmary.

In Glasgow, Dr. Rifkind established the Clinic for Lipoprotein Disorders and carried out studies on the prevalence of hyperlipoproteinemia in vascular disease.

From 1967 to 1968, he worked in the Laboratory of Molecular Diseases, NHLI, as a British Heart Foundation and American Heart Association Exchange Fellow.

Dr. Rifkind has received several awards, among them the Brunton and Fullerton Awards, presented to the "most distinguished graduate of the year" of Glasgow University from which he graduated with commendation in 1957.

He received the Gold Medal and Rankine Prize in Pathology and Bacteriology at the Glasgow Royal Infirmary and, in December 1970, gave the Watson Prize Lecture of the Royal College of Physicians and Surgeons in Glasgow.

Dr. Rifkind recently lectured on the "Clinical Disorders of the Plasma Lipoproteins" at the Biochemical Society Symposium held in London.

Dr. Rifkind has lectured on hyperlipo-proteinemia and lipoproteinemia phenomena at several meetings.
NCI Awards Contracts For Related Research To VPI and Foundation

Contracts for research on cancer of the colon (large intestine) and rectum have been awarded to the American Health Foundation in New York City and the Virginia Polytechnic Institute and State University of Blacksburg by the National Cancer Institute.

Colon and rectal cancer is expected to account for 15,800 deaths in the United States this year. The malady is believed to be caused by a complex combination of factors found in the individual and his environment, according to many scientists.

The two studies will focus on the possible interaction of dietary substances and intestinal bacteria in cancer causation.

**Heads Project**

Dr. John W. Berg is project officer for both contracts. Dr. Berg heads the Epidemiologic Pathology Unit, and is chairman of the colon cancer ad hoc review committee in NCI's Carcinogenesis Program.

Dr. Ernest L. Wynder, American Health Foundation, has been developing an animal model system for research into the causes of human colon and rectal cancer.

By making a comparative study of the effect of the compound DMABP (3,2’dimethyl-4-aminobiphenyl) on the incidence of tumors and intestinal bacteria of rats, mice and hamsters, Dr. Wynder will first evaluate the relative usefulness of these animals in monitoring cancer-producing effects.

**Chemical Causes Malady**

DMABP is a synthetic chemical known to cause colon cancer in animals.

Using results from his institution's studies on human dietary habits, Dr. Wynder and other Foundation scientists will also investigate the effect of certain common dietary substances on the DMABP cancer-causing mechanism.

In a related study, scientists at VPI's College of Agriculture Anaerobe Laboratory are following the lead provided by William M. Haenszel, chief of NCI's Biometry Branch.

In the January 1968 issue of the Journal of the National Cancer Institute Dr. Haenszel reports that Japanese migrants to Hawaii have a higher incidence of cancer of the colon and rectum than do homeland Japanese.

He reasoned that a cultural or environmental agent, such as a difference in diet, might account for the higher incidence in Japanese immigrants.

**Dr. Gene Lewis Named To 2nd Post, Region IV, For Health Manpower**

Dr. Gene P. Lewis has been named acting associate regional health director for Manpower for the Bureau of Health Manpower Education in Region IV, Atlanta, Ga.

Dr. Lewis, a PHS officer, recently became regional dental program director in Region IV for the Division of Dental Health, BHME.

He has been on special assignment with the Tennessee State Health Department developing a dental care system for children of low-income families in southeastern Tennessee.

Dr. Lewis received a D.D.S. degree from Baylor University (1961) and an M.P.H. degree from the University of Michigan (1969).

Shortly after graduation, he entered the PHS and was assigned to the Indian Health Service.

Dr. Lewis joined DDH in 1966 and set up the first comprehensive neighborhood health centers in the southeastern states.

**DR. GRANIT**

(Continued from Page 1)

Dr. Granit will live on the reservation in Stone House.

At NIH, Professor Granit will be writing, lecturing, presenting seminars, and consulting with his colleagues here. He and Mrs. Granit will live on the reservation in Stone House.

**Trenton College Develops Student Nursing Curriculum Stressing Self-Instruction**

A nursing curriculum to reduce student frustration and failure is being developed at Mercer County Community College, Trenton, N.J., with a Division of Nursing Special Project Grant for Improvement in Nurse Training.

The Mercer project will take 5 years to complete. It will allow students to complete the course of study at an individual pace.

The curriculum emphasizes self-instruction and calls for adapting teaching materials that include television and films. Computers will be used to assign problems and assess the answers.

Dr. Dr. Abraham Goldin, National Cancer Institute, recently received the Purkinje Prize for his contributions to international chemotheraphy. Dr. Goldin is associate chief for Laboratory Research, Drug Research and Development, Chemotherapy. A medal and scroll were presented to him at the Seventh International Congress of Chemotherapy held in Prague. The award is named for E. Purkinje (1787-1869), a Czech physiologist.

**Dr. Marshall Selected**

Dr. J. Stanley Marshall, President of Florida State University, was selected to fill the unexpired term of Dr. James C. Fletcher. Dr. Marshall joined the Florida State faculty in 1968 and became President in 1969.

Dr. Angelo M. May of San Francisco, a 1937 graduate of George Washington University School of Medicine, was named to a full 4-year membership on the Board.

A general and thoracic surgeon, Dr. May is a former President of the American College of Angiology and the California Chapter of the American College of Chest Physicians.

The new regents will attend the next meeting of the Board here November 22-23.

**Nixon Nominees Four To Board of Regents, Library of Medicine**

President Nixon has nominated two medical librarians, the head of a state university, and a practicing physician for membership on the Board of Regents of the National Library of Medicine.

Bernice M. Hetzner, Librarian of the University of Nebraska Medical Center in Omaha, and Dr. Susan N. Crawford of Chicago, Director of the Archive-Library Department of the American Medical Association, were named to 4-year terms expiring in August 1975.

**Dr. Lewis**

**Dr. Lewis**

**Dr. Marshall Selected**

**D.C. Children's Hospital Offers 1-Year Fellowship**

The Children's Hospital of the District of Columbia is recruiting for a one-year Fellowship in Adolescent Medicine. Applications are being accepted from physicians who have completed at least 2 years residency.

The program is designed for physicians interested in a third year of pediatrics prior to practice, or for those interested in adolescent medicine as a career.

The Fellowship is available immediately.

For further information, contact Dr. C. Andrew Rigg, Children's Hospital, 2125 Thirteenth St., N.W., Washington, D.C. 20009, or call (202) 335-4352.

**Lung Institute in a continuing study of a large group of Japanese men who are providing basic data on their diet, occupation and health status which will be used in the NCI research.**
McCune Heads NIDR's Biomaterials Program

Dr. Robert J. McCune has been appointed chief of the Biomaterials Program in the Extramural Programs of the National Institute of Dental Research.

Research and research training activities in this area are directed toward developing new materials and methods for restoring or replacing teeth and other oral tissues.

Efforts include the search for new dental adhesives, artificial tooth implants, transplants, and improved dental restorative materials.

Dr. McCune comes to the NIDR from the Division of Dental Health, DHME, where he was chief of the Care Development Branch.

Prior to that he was chief of the Materials and Technology Branch at the Division's Dental Health Center in San Francisco.

During his tour at the Center, Dr. McCune took graduate training in Crown and Bridge and Materials Science at the University of Indiana School of Dentistry from 1966 to 1968.

BIOLOGICAL CONGRESS

(Continued from Page 1)

Conferences include the Federation of American Societies for Experimental Biology, the National Wildlife Federation, and the American Society for Animal Science.

AIBS is sponsoring a special symposium on "The Bicentennial of the Discovery of Photosynthesis." Experiments in this field were conducted in 1771 by the English clergyman Joseph Priestley, who was also a chemist and physicist.

His research and findings led to the discovery and understanding of photosynthesis.

Scientists Manipulate Surface Properties Of Mouse Cells; May Aid Cancer Research

A discovery by National Cancer Institute scientists has potential implications for the defense of normal tissue against the spread of cancer.

For the first time, the surface properties of mouse cells growing in tissue culture have been manipulated without affecting their normal protein synthesis.

Dr. Peter T. Mora, of NCI's General Laboratories and Clinics, discussed this finding at the 162nd American Chemical Society meeting held in Washington, D.C., Sept. 13-17.

Dr. Mora reported that he and Dr. Paul W. Kent, a guest investigator from Oxford University's Department of Biochemistry, have found a way to control the amount of carbohydrate or sugar substances that collect on the surface of inbred mouse embryo cells.

By blocking the build-up of sugar residues, they expect to increase the accessibility of certain antigens on the surface of tumor cells, and in this way increase the possibility of rejection of the tumor cell.

Some scientists suspect that the antigen, tumor specific transplantation antigen (TSTA), acts by a mechanism similar to that of antigens in organ transplants.

During the complex biochemical processes of the normal cell, the carbohydrate substances of the cell's surface are normally attached in long "strings" to the lipids and proteins.

These glycolipids and glycoproteins participate both in the later growth of the cell, in "contact inhibition," a phenomenon of normal cells' mutual control of their growth when in contact with one another, and also in the antigenic rejection of the cells by the host.

A distinguishing feature of cancer cells is their lack of contact inhibition, resulting in abnormal and uncontrolled growth.

Previous work by Dr. Mora and Dr. Roscoe O. Brady and Roy M. Bradley, both of the Laboratory of Neural Control, NINDS, and Vivian W. McFarland, of GL&C, NCI, showed that transformation of normal mouse cells by certain DNA viruses shortened the carbohydrate "strings" in the glycolipids of the cell surface.

Similarity Suspected

Because this result was observed with two cancer-causing viruses—Simian Virus 40 (SV40) and polyoma virus—the scientists suspected a common metabolic influence.

At Oxford, Dr. Kent, an international authority on carbohydrate chemistry, synthesized halogenated (fluorine or iodine atom-containing) carbohydrate derivatives.

At NIH, Drs. Mora and Kent were able to inhibit the incorporation of the carbohydrate residues in tissue culture grown cells by adding non-toxic concentrations of these carbohydrate derivatives as enzyme inhibitors to the cell sugar metabolic pathway.

Significantly, the inhibition was successful not only in virally transformed cells, but also in "spontaneously" transformed tumor cells, and on carbohydrate residues attached to both glycolipids and glycoproteins, indicating that successful manipulation of metabolic pathways is possible for different types of cells.

Normal protein synthesis, necessary for antigen activity in the virally transformed cells, appears to be unaffected.

Study Rejection Potential

Further work by the scientists will determine the rejection potential of the metabolically manipulated cells.

The scientists hope to set up a model system in mice to determine whether the method would cause rejection of cancer cells in animal tissue and, if so, to evaluate its possible application in human cancer.

Ethical Genetic Issues Now Being Considered In 5-Day Conference

A 5-day conference on "Ethical Issues in Genetic Counseling and the Use of Genetic Knowledge" is now under way (Oct. 10-14) at Airlie House, near Warrenton, Va.

The Fogarty International Center and the Institute of Society, Ethics and the Life Sciences, located in Hastings-on-Hudson, N.Y., was incorporated in 1969 by scholars and concerned citizens to consider issues arising from the "biological revolution."

Blood Bank Donors May Win Color TV—Register NOW!

About 1,000 names have been entered in the lottery for this Blood Bank Campaign to recruit new donors. The lottery prize is a new color TV.

The campaign closes the end of January. There is still time to register to become a donor for more than one time—thus increasing the chances of winning that television set. For further information call Ext. 64500.