Dr. Donald Fredrickson Shares 3d International Medical Research Award

Dr. Donald S. Fredrickson, chief of the Laboratory of Molecular Diseases, National Heart Institute, and former Director of the NHI, will receive the Third International Medical Research Award for Heart and Vascular Research from the James F. Mitchell Foundation for Medical Research and Education.

Dr. Fredrickson will share the award with Dr. Edward H. Ahrens, Jr., of The Rockefeller University.

The awards ceremony will be held on May 17.

Research Cited

A nominating committee composed of international scientists selected the recipients for their contributions to the physiology of lipoproteins and plasma lipids and their significance in certain diseases.

The James F. Mitchell Foundation in Washington established the awards 2 years ago.

There have been three previous winners. Dr. Michael DeBakey of Houston won the first award in 1964.

Montana Field Station's Growth Described In NIAID’s Rocky Mt. Lab Fact Sheet

"The Rocky Mountain Laboratory," a new fact sheet prepared by the National Institute of Allergy and Infectious Diseases, traces the growth of this Montana field station from its beginning in 1902 to today's laboratory, a 33.2 acre compound with about 160 employees.

The fact sheet tells of the first major research accomplishment of the laboratory—proving that the Rocky Mountain wood tick is the agent responsible for transmitting Rocky Mountain spotted fever to man—and of present day research efforts including work with "slow" virus infections.

Early History Told

In its early days, the Rocky Mountain Laboratory was housed in a log cabin, a woodshed, and some tents. In 1921 the laboratory was established in an abandoned school building—in the Bitterroot Valley near Hamilton, Mont.—as an official field station of the Public Health Service.

By 1924, after a long-term study of Rocky Mountain spotted fever, research at the RML advanced this baffling health problem from a disease of unknown cause to one against which a successful vaccine had been developed.

With the administration of the original vaccine prepared from the pulverized bodies of infected ticks, the death rate from Rocky Mountain spotted fever fell rapidly, and now has been even more radically reduced through use of antibiotics.

In today's laboratory, research is directed toward six major areas: chronic viral diseases, rickettsial diseases, arthropod-borne and zoonotic diseases, tuberculosis, immunology and allergy, and the structure and biology of microbial constituents.

The RML is interested in a variety of diseases that are transmitted to man by the bite of infected mosquitoes, ticks and lice, and in such diseases as tularemia, leptospirosis, and Colorado tick fever.

Studies continue on a variety of psittacosis - lymphogranuloma - trauma (PLT) agents. These agents, widespread in livestock and human populations, are a major health problem in the Rocky Mountain region.

The modern research complex of the Rocky Mountain Laboratory today stands in stark contrast to the log cabin, woodshed, and tents which housed it in 1902. This NIAID facility does research in a variety of diseases.
**DEFERRED RETIREMENT**

Any federal employee under age 62 who leaves the Federal service, or is transferred to a position not covered by the retirement system, is eligible for deferred retirement provided he has completed at least 5 years' civilian service in a retirement-covered position.

This applies whether the employee resigns or is separated for cause, unless he has been barred from the retirement system because, unless he has been barred from the retirement system because of committing certain offenses involving the Nation's security.

Procedure Explained

Under the deferred retirement plan, annuity payments begin on the separated employee's 62nd birthday. An application should be filed about 60 days prior to that time. The amount of the annuity received will be based upon the laws and computation factors in effect at the time of separation.

In the event an employee who elects deferred retirement dies before reaching age 62, his wife or other eligible dependents will receive a lump sum equivalent to the amount he paid into the retirement fund, plus any interest which has accrued.

If, however, the employee survives to age 62, he may then provide a survivor annuity for his wife and children by taking a reduced annuity.

Persons who leave Federal service and are eligible for a deferred annuity at age 62 cannot continue their life insurance or their health benefits coverage under the regular group plan.

Both the insurance and health benefits coverage will end 31 days after the employee's separation. During this 31-day period the employee may convert his life insurance to a commercial plan and his health benefits coverage to a non-group health benefits contract.

For more detailed information concerning rights and benefits under the deferred retirement plan, employees should contact their I/D personnel office.

**SICK LEAVE**

Accumulated sick leave is like money left in a savings bank which grows in value as earnings are added to it. For example, the sick leave earned at $2.40 an hour as a GS-4 is worth $3.24 an hour if an employee progresses to a GS-7—an increase of 84 cents an hour. This increase is even more impressive when figured on a daily rate, which contrasts $19.20 a day at GS-4 with $25.92 a day at GS-7.

**EXCLUSIVE RECOGNITION**

On April 10 Dr. Herbert Steen, director of the Rocky Mountain Laboratory, National Institute of Allergy and Infectious Diseases, Hamilton, Mont., granted exclusive recognition to Local 1492 of the National Federation of Federal Employees, for a unit comprised of all non-supervisory wage board animal caretakers at the laboratory.

As a result of this form of recognition, Local 1492, NFFE, now has the right to act for and negotiate for all employees of the designated unit (irrespective of their membership in the organization).

Also, a representative of the employee organization is entitled to be present at hearings on grievances or adverse actions.

**ANTI-RIOT PROVISION**

On February 6, this column featured an article concerning a restriction in the current DHEW Appropriation Act which forbids its use "to provide payments, assistance, or services, in any form" to individuals convicted of inciting or participating in a riot or any group activity resulting in damage to property or injury which is in violation of the law.

A recent memo from the Office of the Secretary to all HEW employees points out that this provision does not apply to all offenses which may have arisen from the recent disturbances, such as curfew violations. However, the memo urges any employee who may have been charged with an offense to make sure that his attorney is aware of the above provision in the Appropriation Act.

The text of the provision is quoted in the memo and supervisors should be certain that all employees under their supervision clearly understand its meaning. Additional information concerning the anti-riot provision is contained in the Personnel Guide for Supervisors, Guide 7, Chapter IV.
Animals' Different Use Of Chlorcyclizine Seen As Clue in Cleft Palate

Studies by National Institute of Dental Research investigators suggest that there is a relation between the ability of chlorcyclizine to induce cleft palate in animals and the speed with which a particular species is able to convert chlorcyclizine into norchlorcyclizine.

Part of the problem in finding suitable animal models of human diseases is the different rates at which various animals dispose of a drug which, in turn, probably reflects species-specific chemical pathways of metabolism.

Model Sought

Since the antihistamine, chlorcyclizine, produces cleft palate in rodent offspring when given at critical stages in pregnancy, Dr. A. J. Steffek, Dr. C. T. G. King, and A. L. Wilk, NIDR, experimented with other species of carnivores, ungulates, and primates to see whether this drug has a similar effect elsewhere in the animal kingdom. They hoped to find a species more like man to serve as an experimental model for this oral malformation.

Accordingly, they gave chlorcyclizine to pregnant ferrets, Duroc pigs, and Rhesus monkeys during the period of organ formation. Cleft palate of a somewhat different type from that in rodents occurred in two-thirds of the ferret fetuses. On the same regimen, pigs and monkeys had a high rate of abortion but no clefts.

Conversion Rate Studied

Previous research showed that norchlorcyclizine, a demethylated metabolite product of chlorcyclizine, rather than chlorcyclizine itself, causes clefting.

Therefore the investigators decided to compare the rate of chlorcyclizine conversion to norchlorcyclizine in non-pregnant rats, pigs, and monkeys. They measured the amount of norchlorcyclizine present in the blood at various intervals after administration of the parent drug as an indication of its rate of metabolism. The fastest conversion occurred in the rat.

Demethylation Compared

Norchlorcyclizine was found in its blood within 24 hours, whereas none could be found during this interval in either pig or monkey.

However, norchlorcyclizine appeared in the pig's blood for ten days after it had disappeared in the monkey's, showing that monkeys demethylate the drug faster than pigs.

Hippocrates' Words Move NIH Personnel To Aid City in Providing Medical Care

One of the many facets of the committee's activities is to give physical examinations and advice on the health programs of the Headstart and Pride Incorporated programs. Here, Dr. James Phang, Metabolism Branch, NCI, examines a child who will get a "headstart."

Time has neither dimmed the luster of the Hippocratic Oath nor impaired its effectiveness as an instrument for good.

That this remains true is borne out by the work of an informally organized group of NIH professional staff, area physicians, and other medical and paramedical personnel.

Formed in 1963, the area group called the "Medical Committee for Human Rights" is the local chapter of a national organization bearing the same name.

The Committee is coordinated by Dr. Arthur Frank, National Heart Institute, and Dr. Jesse Roth, National Institute of Arthritis and Metabolic Diseases.

Although organized in 1963, the group experienced its most rapid growth and expansion in the past year. About 200 medical, paramedical, and other volunteers from the Washington area sustain the group. Approximately 75 of these are associated with NIH.

In cooperation with local civic leaders and members of the D. C. government, the group provides medical assistance in special situations for which coverage is not normally provided, or in cases where normal medical channels may be overtaxed.

Dr. Fred Heath, Deputy Director, D. C. Department of Public Health, expressed appreciation for the assistance of the Committee and commended its work, especially during the April 5-10 disturbance in Washington.

Committee Commended

He praised the group not only for the amount of work it performed but also for the quality of the care provided and for the manner in which it coordinated its efforts with the D. C. Department of Public Health, Police Department, and other agencies.

After the difficulties in Detroit last year, the group had begun to develop a plan for providing extrahospital medical care in the event of civil disorder in the Metropolitan area.

Late Friday afternoon, April 5, members contacted officials of the D. C. Police and Health Departments to offer their services, to survey the situation, to evacuate areas of need, and to coordinate the institution of their emergency (Continued on Page 5)
Improved Leukemia Remission Rate Linked To New Method of Administering Ara-C

National Cancer Institute scientists have reported that a new method of administering a drug called cytosine arabinoside, or Ara-C, has produced complete remissions (temporary disappearance of all evidence of the disease) in 19 of 40 patients (47.5%) with acute myelocytic leukemia. This is a type of leukemia against which little progress has been made to date.

This continuing study is being conducted by NCI scientists Dr. Edward S. Henderson, Brigid G. Leventhal, and Patrick H. Henry, and by Dr. Arthur A. Serpick at the NCI-Baltimore Cancer Research Center.

Ara-C was administered to patients slowly, in intravenous doses (60 milligrams per square meter of body surface) for 4 hours a day for 4 consecutive days, then repeated at approximately one-week intervals.

Each infusion was preceded by a “priming” dose one-sixth as large as the main dose. Given in this manner, Ara-C was significantly more effective than earlier regimens using lower doses or rapid injection.

Previous Remission Rate Lower

In previous studies by the NCI and a group of 30 hospitals cooperating in anti-leukemia studies (the Acute Leukemia Cooperative Group B), complete remissions had been induced by Ara-C in less than 30 percent of patients with acute myelocytic leukemia.

The new regimen for administering the drug was developed when it was learned that Ara-C is rapidly deactivated in the blood and quickly becomes ineffective. Slow, continuous infusion in moderate doses allows the drug, an antimetabolite, to achieve greater destruction of leukemic cells. (Antimetabolites are drugs that closely resemble normal nutrients and act by replacing metabolites essential for cell growth.)

Of the 40 patients treated in the present study, 31 were adults (above 15 years of age) and nine were children. Of the adult patients, 14 achieved complete remission, four had partial remissions, and 13 failed to respond. Among the children, there were five complete remissions, one partial remission and three failures to respond. The average duration of complete remission was estimated to be at least 3 months, but exact information will not be available until a later date.

The remission rates achieved with Ara-C by Dr. Henderson and his colleagues are similar to those obtained in acute myelocytic leukemia with an anticancer antibiotic called daunomycin and with a 4-drug combination (vincristine, methotrexate, 6-mercaptopurine, and prednisolone).

However, Ara-C did not produce toxicity to bone marrow as serious as that associated with the use of the other drugs.


Publication of the Research Grants Index, 1967 Edition, was announced recently by Dr. Eugene A. Confrey, Director of the Division of Research Grants.

The edition contains information on approximately 17,000 research projects in biomedical and health-related sciences currently supported by the Public Health Service.

Purpose Stated

Designed to accelerate communication of research knowledge, the Index enables scientists to identify other researchers in their own and related fields and to exchange information prior to publication.

The first volume contains about 7,700 subject headings in alphabetical order, under which appear grants or contract numbers of pertinent projects, each followed by a few descriptive words.

Individual investigators may be identified by referring to the first section of Volume I, where projects are listed by number together with citations to resulting publications. The second volume also contains a listing of general research areas and an alphabetical listing of grantee investigators.


Immunizations for Smallpox Postponed, EHS Announces

Smallpox immunizations, originally scheduled to begin the week of April 22, have been postponed by the Employee Health Service.

A new schedule will be published as soon as possible.
DRS Announces Issuance Of New Memorandum On Refuse Disposal

The Division of Research Services has announced that each laboratory at NIH will soon receive a new Policy and Procedure Memorandum governing the disposal of refuse.

The new PPM enlarges on the former one by including not only the disposal of animals, but also the safe and efficient packing, labeling, and collecting of all infectious and noninfectious wastes, including glassware.

Since NIH specifies that the proper disposal of animals, wastes, and glassware is a serious responsibility, non-compliance with the new policy and procedures could result in severe penalties.

According to the PPM, all GI cans containing any kind of waste material must be tagged with a new 3-part, tear-off tag, with space to pre-stamp the I/D, building, and room from which the waste material came.

Untagged cans are not to be removed from laboratories or pick-up areas. The purpose of the tag is to ensure the safe and efficient handling of various types of refuse.

Labeling Explained

By using the whole tag or the appropriate section of the tag, the person responsible for labeling can identify its contents as having either (1) no animals and no infectious material; (2) noninfectious dead animals; or (3) some kind of infectious material.

The individual investigator or supervisory animal caretaker is responsible for insuring that the handle of each GI can is properly tagged.

The PPM provides separate instructions for the reprocessing or disposal of soiled laboratory glassware (including plastic items). The laboratory head, branch chief, or food area manager is responsible for insuring that all persons handling animals, garbage, and other waste material collected in GI cans, and all persons using laboratory glassware are familiar with the requirements of this PPM.

To assist in implementing this responsibility, instruction sheets, designed for posting in laboratories and other appropriate areas, will be distributed.

Burk L. Walker, DRC, Retires From Federal Service

Burk L. Walker, budget officer in the Division of Research Grants, retires this month after 33 years in Government service.

In 1935 he accepted his first position with the Federal Writers service, working as an auditor for the Department of Agriculture. In 1942 he entered the U. S. Air Force. He served for 3 years, including a 2-year tour of duty in Europe.

Mr. Walker returned to Federal service as a civilian in the Reconstruction Finance Corporation in 1946, and worked in several agencies before joining DRG in 1957.

Mr. Walker’s retirement plans include gardening and fishing.

COMMITTEE VOLUNTEERS MEDICAL AID TO CITY

Members of the Medical Committee for Human Rights take a break after performing a post-mortem on the group’s operation during the recent crisis in Washington. In the foreground is a police precinct map which was used in organizing their activities. They are (from left) Dr. Jesse Roth, NIAMD (co-chairman), Dr. Henry Metzger, NIAMD (treasurer), and Dr. Arthur Frank, NHI (co-chairman).

(Continued from Page 1)

Dr. Peter G. Contacos, NIAID, Receives Medal For Studies on Malaria

Dr. Peter G. Contacos, malaria-ologist of the Laboratory of Parasitic Chemotherapy, National Institute of Allergy and Infectious Diseases, received the PHS Commendation Medal at a special ceremony in Atlanta, Ga., on April 16. The award was given to Dr. Contacos for his “exceptional ability in the evaluation of antimalarial drugs in human volunteers, for pronounced success in establishing the importance of the simian malarias as insecticides of man, and for his exceptional leadership and participation in team research.”

The award, given to members of the Commissioned Corps, was presented by Dr. G. M. Jeffery, chief of the Laboratory of Parasite Chemotherapy at Bethesda, in behalf of Surgeon Gen. William H. Stewart.

Dr. Contacos is head of the LPC's section on primate malaria at Atlanta and Chamblee, and the unit on malaria of lower primates at Chamblee. These field stations of the LPC evaluate antimalarial drugs through the volunteer program at the Federal Penitentiary. Various malarias, parasites, and mosquito vectors are studied.

Anacostia area of Southeast Washington.

During the “Peace March” at the Pentagon last fall, the Committee worked to improve medical care in prisons and detention homes. In the past the group has given physical examinations and advised in the health programs of the Headstart and Pride Incorporated programs.

Presently, Committee members are examining the problem of lead poisoning and are helping to evaluate the medical and nutritional status of underprivileged areas. They also are working with community groups and the D. C. Health Department to create a neighborhood health clinic in the

Dr. Peter G. Contacos received a Commendation Medal for his "exceptional ability" in malaria research.

Similar plans are underway for the upcoming “Poor Peoples March on Washington.” The Committee will staff a number of medical and first aid stations throughout the area to provide care for participants on a round-the-clock basis.

Those interested in joining may write to the Medical Committee for Human Rights, c/o 3410 Taylor Street, Chevy Chase, Md. 20015.
Biological Data Published On 204 Arboviruses With NIAID Support

Arboviruses—viruses transmitted to man and animals by mosquitoes and ticks—are the subject of a 908-page Catalogue of Arthropod-Borne Viruses of the World published recently under sponsorship of the National Institute of Allergy and Infectious Diseases.

The catalogue contains important biological information about each of the 204 viruses listed, such as source and manner of isolation, physical, chemical, and antigenic characteristics, natural and experimental host range, geographic distribution, and frequency and symptomatology of human infection.

The new volume was compiled by Dr. Richard M. Taylor of the University of California at Berkeley after 8 years of intensive collaboration with virologists from many parts of the world. An epidemiologist and virologist, Dr. Taylor was a member of the international health division of the Rockefeller Foundation for 32 years.

Date as of Feb. '67

For some time, Dr. Taylor has collected the arbovirus information provided by investigators and has served as a one-man "clearing house" in passing on informal reports in the form of a working catalogue—to others in the field.

The published catalogue incorporates the data, as of February 1967, taken from the working catalogue.

NIAID has provided financial support since 1962 for the working catalogue which is used by laboratories and institutes actively engaged in arbovirus research.

The published catalogue is expected to have even wider distribution among those engaged in arbovirus research and will serve as a valuable reference for schools of medicine, veterinary medicine, and public health.

Listed as PHS Publication No. 1760, the catalogue is available from the Government Printing Office, Washington, D.C. 20402, at a cost of $5.25.

May 1968 Senior Citizen Month

President Johnson has designated May 1968 as Senior Citizen Month. In doing so, the Chief Executive called upon "the Federal, State and local governments, in partnership with private and voluntary organizations, to join in community efforts to give further meaning to the continuing theme of this special month: Meeting the Challenge of the Later Years."

James Gardner Named Adm. Officer for NIH

James C. Gardner has been appointed Administrative Officer for the National Heart Institute.

In his new job, Mr. Gardner will be responsible for providing administrative management services for the Artificial Heart-Myocardial Infarction Program and the Office of the Director, NIH. He had previously served as Personnel Officer to the Institute since October 1966.

Prior to his last assignment, Mr. Gardner served as personnel management specialist for the Institute's DRS Environmental Services Branch, and his staff inspect an isolator for animal surgery that was developed by the branch. They are (from left): Warren V. Powell, Albert S. Gates, Dr. Lamphere, Roger L. DeRoo, Dr. Donald G. Fox, and Dr. Lloyd G. Herman—Photo by Tom Joy.

DR. SEBRELL

(Continued From Page 1)

Medical Science Program administered by the Office of International Research, NIH, and Chairman of the Protein Advisory Group of the UNICEF agencies; World Health Organization and Food and Agriculture Organization.

Dr. Sebrell's research in vitamins—"he was the first to describe vitamin B deficiency in humans—and other fields of nutrition, has earned him many honors.

His awards include the Joseph Goldberger Award of the American Medical Association, the Research Medal of the Southern Medical Association, and the Maud Johnson Award of the American Institute of Nutrition.

Monograph on Refractive Anomalies of the Eye Published by NINDB

A new monograph, Refractive Anomalies of the Eye, has been published by the National Institute of Neurological Diseases and Blindness. The publication is a report of an Institute-sponsored workshop, and contains papers by authorities from the professions of optometry and ophthalmology.

Research Reviewed

The document is intended to stimulate new visual research. It explores the present state of knowledge, diagnostic and therapeutic techniques, promising avenues for research, clinical importance of refractive anomalies, and recommended areas for new research.

In a preface to the report, Dr. Richard L. Macland, NINDB Director, noted that refractive anomalies are among the most widespread of all health impairments, and that, paradoxically, there are few active research programs to explore their underlying mechanisms.

Effects Intensified

Hyperopia (farsightedness), myopia (nearsightedness), astigmatism, anisokoria (a condition in which the image seen by one eye differs in size and shape from that seen by the other eye), and presbyopia (vision impairment due to aging) were identified as abnormalities in need of increased study.

A limited number of copies of Refractive Anomalies of the Eye (PHS Publication No. 1685) are available for free distribution by NINDB to investigators, clinicians, and others with a working interest in the field.

Findings Back Theory Hormones May Act On Target Cells by Common Mechanism

Research by scientists of the National Institute of Arthritis and Metabolic Diseases has now shown that parathyroid hormone and vasopressin have identical modes of action —the former in the cortex and the latter in the medulla.

It has been known that the pituitary hormone vasopressin activates the enzyme adenylyl cyclase in the kidney, thus increasing the urinary excretion of cyclic 3',5'-adenosine monophosphate (3',5'-AMP).

Recently, the investigators, Drs. L. R. Chase and G. D. Aurbach, Metabolic Diseases Branch, demonstrated that parathyroid hormone also increases urinary excretion of cyclic 3',5'-AMP and postulated that this hormone also may act by a similar enzymatic mechanism.

Their new finding supports the theory that hormones may exert their effect on widely different target cells by a common mechanism. Further work in this area is under active investigation.

Plasmacellular fractions prepared from the cortex and medulla of rat kidneys were assayed for adenylyl cyclase activity by the investigators by measuring the conversion of labeled adenosine triphosphate to cyclic 3',5'-AMP. The effect of adding parathyroid hormone or vasopressin to these homogenates then was determined.

The addition of parathyroid hormone to homogenates of renal cortex caused a marked increase in adenylyl cyclase activity, which was maximal at 5 minutes and involved 30 percent of the total available enzyme.

Conversely, addition of vasopressin to homogenates of renal medullas had a like effect, with a maximum effect at 5 minutes which involved 25 percent of available enzyme. Parathyroid hormone only slightly stimulated the medulla, and vasopressin had no effect.

These results support the conclusion that cyclic 3',5'-AMP mediates the action of parathyroid hormone on the kidney and show that parathyroid hormone and vasopressin stimulate adenylyl cyclase activity at anatomically separable areas within the kidney. The findings also gain significance in view of the knowledge that cyclic AMP mimics the effects of vasopressin in vitro.

New Brochure Describes DBS Mission

Laboratory research studies and techniques described in the illustrated brochure issued recently by the Division of Biologies Standards include studies on control procedures for the manufacture and storage of human blood and its derivatives (left) and the fractionation of complex biologic products used in studies of standard reference preparations.—Photos by Roy Perry.

Environmental Health Problems Discussed by Dr. Paul Kotin

A paper on environmental health problems by Dr. Paul Kotin, Director of the Division of Environmental Health Sciences, was read at a symposium at North Carolina State University in Raleigh.

The meeting inaugurated a new addition to the university's biotech building. Part of the funds for this building came from NIH.

Dr. Douglas H. K. Lee, DEHS associate director for Scientific Information, read Dr. Kotin's speech at the symposium. His paper discussed the existing environmental hazards that present new types of health problems.

The exacting task of protecting the public against unsafe or ineffective vaccines, seraums, and other biological products is the subject of a booklet issued by the Division of Biologies Standards.

The illustrated brochure highlights the research opportunities related to the DBS mission—the control of biological products.

Photographs illustrate animal tests, laboratory techniques, and research-related control and test procedures, all of which are essential part of DBS's responsibility for maintaining standards of quality and safety of biologicals.

The brochure (PHS Publication No. 1744) may be obtained from the DBS Information Office, Building 29, Room 323, Ext. 63343.

Communicative Disorders Discussed in Monograph Published by NINDB

Information concerning the communicative disorders has been collected in a new monograph, Public Health Aspects of Hearing, Language, and Speech Disorders, published by the National Institute of Neurological Diseases and Blindness.

The monograph, intended as an aid in developing community programs, reviews statistics on the prevalence of communicative disorders and discusses their extremely damaging effects at all age levels, with particular emphasis on disorders occurring in pre-school and school-age children.

Perinatal causes of communicative disorders, drug toxicity, adult disease, the effects of noise, and hearing loss associated with aging are reviewed in a chapter on prevention.

Hearing Fundamental

In the introduction, the authors, Drs. Eldon L. Eagles, assistant director, NINDB, and William G. Hardy and Francis I. Catlin, Johns Hopkins University, note the extraordinarily complex anatomic, physiologic, and psychologic bases of communication, holding hearing to be the most fundamental.

Single copies of the 28-page document, PHS Publication No. 1754, may be obtained free from NINDB while a limited supply lasts. Copies are also available from the Superintendent of Documents, U. S. Government Printing Office, Washington, D. C. 20402, at 25 cents per copy.
1966. The second award, in 1967, was given to Dr. Armand J. Quick of Milwaukee and Dr. Paul A. Owen of Oslo. They shared honors for their discoveries of unknown facts in blood coagulation. Their findings opened up a whole field of research. This year, the Foundation is marking its seventh anniversary. Its research is largely financed by a grant from the NIH.

Dr. Tage Astrup, Director of Research for the Foundation, before the International Nomination Committee.

**BHM Programs Prepare Nurses for Research And Research Training**

In a recent report on programs of the Bureau of Health Manpower's Division of Nursing designed to prepare nurses for research and research training, Dr. Faye Abdellah discussed how successfully the program's goals had been achieved.

Dr. Abdellah, chief of the Research Grants Branch of the Nursing Division, made her report at a meeting of the National League for Nursing Council of Baccalaureate and Higher Degree.

Of 89 nurses who completed their doctoral study with Special Nurse Fellowships support, 78 were engaged in nursing research or a research training activity. Only one of 68 nurses who received educational support under the nurse scientist program had previously been employed in research.

**Fish Protein Concentrate Added to Sweets May Combat Tooth Decay**

Those cookies and candy bars people love to eat may one day be made into nutritional boosters that also fight tooth decay. This possibility is suggested by results of experiments with fish protein concentrate (FPC) underway at the National Institute of Dental Research.

FPC is a diet supplement to provide protein to undernourished areas of the world.

Dr. Robert M. Stephon of NIDR has found that FPC and other fish meals used in food to which sugar has been added reduces the sugar's ability to cause tooth decay in laboratory rats.

Should the nearly tasteless FPC work as well in humans, it could be used to snack foods to make them more nutritious and less cariogenic.

When another sugar (glucose or corn syrup) was given separately in drinking water instead of mixed into food with FPC, there was not as much protective effect.

This suggests that the FPC products have to be mixed with snack foods to exert maximum protection, and the local effect on the teeth may be due to basic fish proteins as well as the mineral content.

**Approved for Use**

FPC has been approved for use in this country, but its greatest potential as a complete protein supplement is expected to be in the malnourished parts of the world.

If the sugar-FPC mixture proves to counteract sugar's decay-causing activity in man as it does in the rat, addition of FPC to snack foods would also be helpful in this country to reduce caries.

In another experiment, Dr. Stephen found that mixing skim milk powder with sugar did not check decay as much as the FPC even though little decay occurs on a milk powder diet alone.

This, too, supports the conclusion that FPC may protect against caries more than the protein food supplements which have been commonly added to our snack foods in the past.

**Dr. Martin M. Cummings, Director of the National Library of Medicine, received the DHEW Distinguished Service Award from Secretary-designate Wilbur J. Cohen, at the recent Annual Awards Ceremony, Dr. Cummings was cited for his "outstanding performance as a medical educator and administrator ..."**

**Vast Resources of NLM Aid Scientists, Educators, Regional Medical Libraries**

Over 130 years ago, the nucleus of the National Library of Medicine evolved. At that time—1836—it was called the “Library of the Surgeon-General's Office,” and was under the aegis of the Army. The Library developed as a national resource under Dr. John Shaw Billings, Librarian from 1835 to 1855.

Renamed the “Army Medical Library” in 1822 and “Armed Forces Medical Library” in 1952, it became a part of the PHS, DHEW, in 1956 under legislation introduced by Senators Lister Hill and John F. Kennedy, and was transferred to the NIH April 1.

According to Dr. Martin M. Cummings, Director of the National Library of Medicine, the Library has become much more than a traditional repository of published information, it has become a dynamic information center, utilizing the latest technologies to speed the flow of biomedical information to scientists, educators, and practitioners.

**Includes Atlanta Center**

NLM has some 500 employees, of which 135 are in Atlanta at the Library's National Medical Audiovisual Center. The NLM collection now totals about 1,500,000 items.

The Library's computer-based MedLARS (Medical Literature Analysis and Retrieval System), the foremost application of computer technology to library operations, produces Index Medicus and other bibliographic tools.

NLM's Extramural Programs, authorized by the 1965 Medical Library Assistance Act, provide sup-