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NATIONAL INSTITUTES OF HEALTH
PUBLIC HEALTH SERVICE

AEC to Join NCI In Research on Cancer Causes

The National Cancer Institute and the Atomic Energy Commission will conduct a joint research project to investigate the roles of radiation, viruses, and chemicals as causes of cancer. The research will be carried on at the Oak Ridge National Laboratory (ORNL), Oak Ridge, Tenn.

The collaborative investigation will take advantage of the facilities of the Atomic Energy Commission and its previous studies of the effects of radiation on various biological materials, as well as of the special research competencies and previous findings of the National Cancer Institute.

Dr. Terry Comments

In commenting on the project, Dr. Luther L. Terry, Surgeon General of the Public Health Service, said:

"The incidence of cancer, especially lung cancer, and the increase in number and amount of potentially cancer-causing agents to which man is being exposed, emphasize the need for research on cancer causes."
(See *CANCER CAUSES*, Page 7)

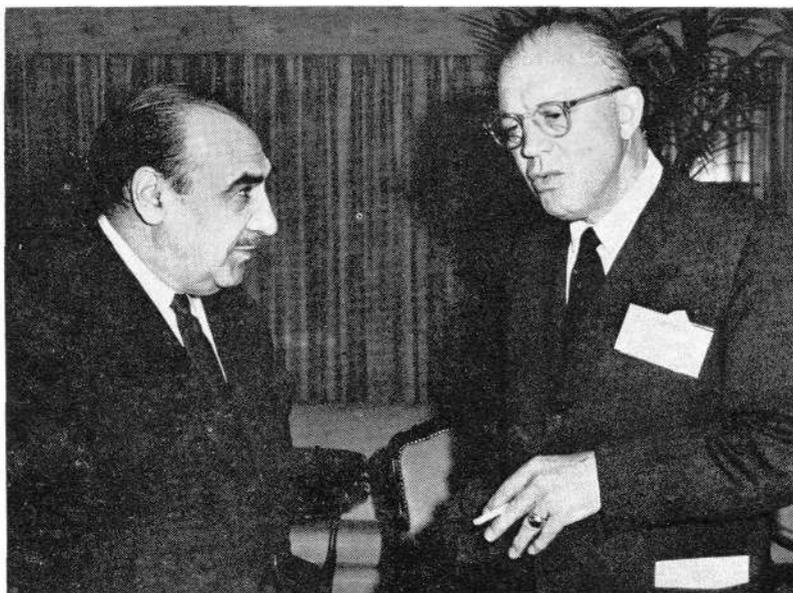
First Mental Health Information Center For Latin America Has NIMH Support

The first mental health information center for Latin America was opened recently in the Pan American Sanitary Bureau in Washington, D. C. The Bureau is the World Health Organization's regional office in the Americas.

Designed to collect and classify information and data about Latin American mental health problems, the Latin American Information Center on Mental Health is being financed through 1965 mainly out of a \$127,000 grant from the National Institute of Mental Health. After 1966, the Center will be financed entirely from the Pan American Sanitary Bureau's budget.

Dr. Jorge M. Valezco-Alzaga of Mexico, the Bureau's mental health adviser for the hemisphere, was named director of the Center. Dr. Margaret Urist of Osborne, Kans., a political scientist in international

Celebrezze Holds Cooperation Vital in War Against Disease



Anthony J. Celebrezze, Secretary of Health, Education, and Welfare (left), confers with Dr. Milton S. Eisenhower, President of Johns Hopkins University and Co-chairman of the 1963 National Health Forum, at the recent meeting.

By Helen K. Neal

In his opening address before the 1963 National Health Forum, March 18 at the Mayflower Hotel in Washington, Anthony J. Celebrezze, Secretary of Health, Education, and Welfare, said, "If I were asked to name the single most important factor in our Nation's progress against disease, I would say without hesitation that it is cooperation between the public and private sectors of our society."

The 3-day meeting, sponsored by the National Health Council, was attended by 650 leaders from governmental and voluntary agencies, universities, industry, labor, and foundations.

Problems Aired

Other speakers dealt with various phases of the problem of cooperation and collaboration between public and private agencies responsible for biomedical research, professional education, and health services.

In his talk to Forum participants, Boisfeuillet Jones, Special Assistant to the Secretary of Health, Education, and Welfare, referred to the relationship between the National Institutes of Health and universities and other research

(See *COOPERATION*, Page 8)

DHEW to Honor Six From NIH at Ceremony Today

Six NIH staff members will receive meritorious service awards today at the 12th Annual DHEW Honor Awards Ceremony, to be held at 3 p.m. in the DHEW auditorium.

The Department's highest honor, the Distinguished Service Award, will be presented to Dr. Roy Hertz, Chief of the Endocrinology Branch of the National Cancer Institute.

Superior Service Awards

Recipients of the DHEW Superior Service Award will be Dr. Margaret Pittman, Chief of the Laboratory of Bacterial Products, Division of Biologics Standards; Dr. John E. Tobie, Head of the Applied Immunology Section, Laboratory of Immunology, National Institute of Allergy and Infectious Diseases; Dr. Stephen P. Hatchett, Chief of the Career Development Review Branch, Division of Research Grants; Emanuel Landau, Chief of the Biometrics Section, Collaborative Research, National Cancer Institute; and Richard L. Seggel, Executive Officer of the National Institutes of Health.

Dr. Hertz will be cited "in recognition of his distinguished contribu-

(Continued on Page 6)



Dr. Hertz



Dr. Pittman



Dr. Hatchett



Dr. Tobie

the NIH Record

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The NIH Record reserves the right to make corrections, changes or deletions in submitted copy in conformity with the policy of the paper and the Department of Health, Education, and Welfare.

NEWS from PERSONNEL

COLLEGE RECRUITMENT

Data sheets on science majors who will graduate this June are in the hands of Institute and Division Personnel Officers. These data sheets outline the background of carefully selected students who are interested in working at the NIH. They are the result of an unusually successful series of campus visits by members of the Recruitment and Placement Section, PMB.

Identifying and contacting quality graduates is one phase of the NIH College Recruiting Program. Each year, PMB representatives visit approximately forty colleges and universities. These periodic contacts with university placement officers and students help NIH get its fair share of well qualified graduates.

Universities Visited

An equally important part of the NIH Program is carried out by Program officials. These officials frequently visit universities on other matters but take the opportunity to do selective recruiting for themselves or their colleagues.

PMB seeks to assist these officials by supplying kits of material that contain publications and other information they may need. They are urged to get in touch with their I/D Personnel Officers before visiting a university, so that he can supply them with the latest information. Even though they have no immediate need, someone else may. Their Personnel Officers will know of these needs.

PMB TO ATTEND FASEB

PMB has announced plans for NIH representation at the annual

NIH Sailing Club Meeting Reset for Next Thursday

The next meeting of the R&W-NIH Sailing Club, at which Aubrey Graves, Outdoors Editor of the Washington Post, will speak, is now scheduled for Thursday, April 18, at 7:30 p. m., in Wilson Hall, Building 1. Originally the meeting had been scheduled for April 4.

The change in date results from a schedule revision under which the Sailing Club will meet hereafter on the third, instead of the first, Thursday of each month.

meetings of the Federation of American Societies of Experimental Biology, to be held in Convention Hall in Atlantic City April 16-20.

These meetings serve as an excellent source of recruitment by providing for an exchange of information between employers and individuals desiring positions in the Federated Societies which cover the fields of physiology, biochemistry, pharmacology, pathology, nutrition, and immunology.

NIH professional personnel attending the meetings who are interested in interviewing candidates or desire the assistance of the PMB Placement Service are urged to contact John D. Ewan, PMB representative. Mr. Ewan will be located at the Placement Service in the lower lobby of Convention Hall.

ORGANIZATION HANDBOOK

The Management Policy Branch, Office of Administrative Management, has recently compiled the first annual edition of the NIH Organization Handbook.

The Handbook contains organi-

Dr. Berwin Cole Named To PHS Grants Post

Dr. Berwin Abbey Cole, Chief of Special Staff for Extramural Programs of the National Institutes of Health, recently was named Deputy Grants Policy Officer for the Public Health Service by Surgeon General Luther L. Terry.



Dr. Cole

Dr. Cole will share responsibility for grants policy with Dr. Ernest M. Allen, Grants Policy Officer in the Office of the Surgeon General.

In his new assignment, Dr. Cole will assist in the formulation of overall policy governing the extensive grants programs of the Service. Responsibility for administering the programs, however, will remain in the various operating Bureaus.

Grant programs administered by PHS are in five broad areas: (1) training, (2) research, (3) health services, (4) construction, and (5) fellowships.

Joins PHS in 1954

Dr. Cole, a native of New York City, entered the Public Health Service in 1954, and has spent his Service career primarily in the area of research grants administration.

Previously he had been associated with the Food and Drug Administration as a bacteriologist in the Division of Antibiotics, with Walter Reed Army Medical Center as Acting Chief, Department of Parasitology; with the Tropical Research Medical Laboratory in San Juan, Puerto Rico, as Chief of the Department of Parasitology; and as Director of Research of a pharmaceutical company in Baltimore.

Degree With Distinction

He received his bachelor's degree from City College of New York in 1940. In 1947, he received his master's degree from Catholic University, and three years later was awarded his doctorate in microbiology, cum distinctione, from the same institution.

His post doctorate work included biochemistry at Georgetown University and enzymology at Catholic University.

zation charts and descriptions of the activities of the Institutes and Divisions, the names of principal Institute and Division officials, a chart depicting NIH's historical development, and several other items that make it particularly desirable for reference or orientation purposes.

Copies of the Handbook may be obtained by calling Mrs. Sylvia Vogel, Ext. 4603.

Licenses Granted For Marketing of Measles Vaccines

Licenses for the manufacture of two types of measles vaccines were approved March 21 by Anthony J. Celebrezze, Secretary of Health, Education, and Welfare, acting on the recommendation of Dr. Luther L. Terry, Surgeon General of the Public Health Service.

Merck, Sharp & Dohme, of Philadelphia, Pa., was licensed to market live attenuated measles vaccine in interstate commerce, and Chas. Pfizer & Co., Inc., of New York, N.Y., and Terre Haute, Ind., was licensed to market inactivated vaccine.

The action permits distribution of the vaccine to the Nation's physicians. The announcement said a limited quantity of the live vaccine would be available immediately and the killed vaccine would be available within a few weeks. It is expected that both vaccines will be generally available within a few months.

Licensing Explained

Under the National Biologics Control Act, a license for the manufacture and interstate distribution of vaccines, serums, antitoxins, and similar biological products for medical use can be issued when the manufacturer demonstrates that his product meets Federal standards of safety, purity, and potency.

Such products are tested and evaluated to see that they meet these standards by the NIH Division of Biologics Standards.

Development of the measles vaccines stems from the work of Nobel Prize winner, Dr. John Enders of Harvard University, and an associate, Dr. Thomas Peebles, who isolated a strain of the measles virus in 1954.

From this original strain of the virus, designated the Edmonston strain, both the live and the killed vaccines have been produced.

Ranks No. 1

Measles is the number one childhood disease. Among children, measles may lead to deafness, mental crippling, and pneumonia. In adults, measles is a severe and sometimes fatal disease.

While measles constitutes a significant health problem in the United States, it is even more serious in other parts of the world. In Africa and South America, for example, the death rate among children may be as high as 25 percent.

Over the past several years, the vaccines have been successfully tested both in this country and abroad. Nearly 50,000 children in the United States alone have received these vaccines in field trials.

(See MEASLES, Page 3)

NIMH Finds Diminished Binding of Epinephrine In Hyperthyroid Heart

National Institute of Mental Health scientists have found that cardiovascular supersensitivity to epinephrine in hyperthyroid animals is related to increased delivery of the catecholamine in the heart and decreased inactivation by binding.

These findings were reported by Drs. R. J. Wurtman, I. J. Kopin, and J. Axelrod of the Laboratory of Clinical Science, NIMH.

Hyperthyroidism enhances epinephrine's effect on blood pressure, blood glucose concentration, heat production, and oxygen consumption.

Postulating that the prolonged hemodynamic response of the hyperthyroid rat to epinephrine was related to a decrease in the ability of its heart to inactivate the circulating catecholamine, the NIMH scientists studied the delivery of H^3 -epinephrine to the hyperthyroid heart and the subsequent disposition of epinephrine during its period of physiological activity.

Heart Is Enlarged

In hyperthyroid animals the heart is enlarged. Thus, although a greater proportion of a given dose of administered epinephrine is delivered to this organ, each gram of hyperthyroid heart receives the same fraction of circulating epinephrine as an equal weight of normal heart. However, total cardiac capacity to bind epinephrine is not increased.

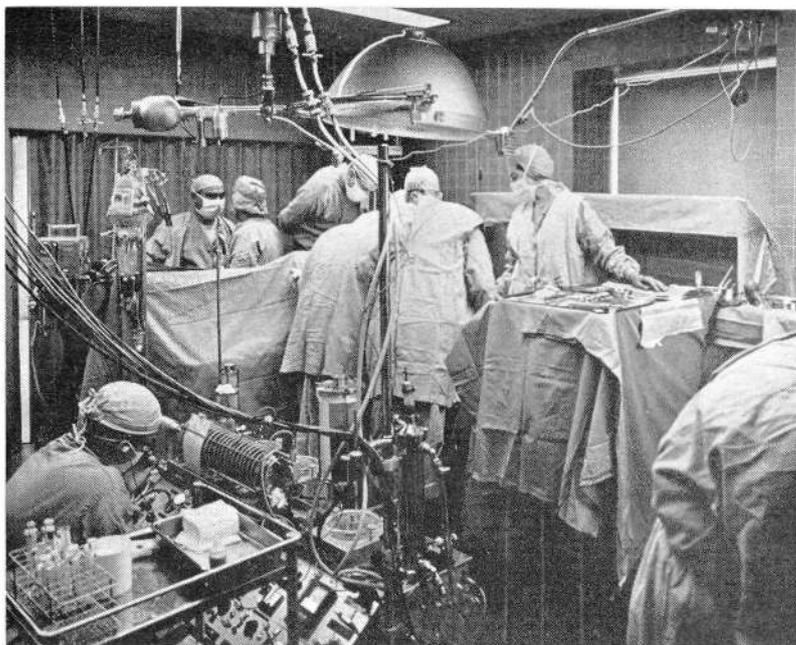
The data of this study indicate that the capacity of each unit weight of heart to inactivate epinephrine, by binding, is decreased with hyperthyroidism. Thus, the cardiac concentration of free epinephrine remains elevated, to act upon the receptors.

The physiologic actions of epinephrine are terminated by its being bound within sympathetic nerve endings or its being metabolized by O-methylation.

Small doses of thyroxine which altered the rat heart response to epinephrine did not affect the activity of hepatic or cardiac catechol-O-methyl transferase or the quantity of O-methylated metabolites in the heart. Cardiovascular sensitivity to epinephrine in hyperthyroid animals appears to be unrelated to the enzymes involved in catecholamine metabolism.

The NIMH scientists have proposed that the capacity of the heart to inactivate circulating epinephrine by binding is diminished in hyperthyroidism and that the consequent elevated levels of free epinephrine may be a major factor in the development of supersensitivity to injected epinephrine.

OPEN-HEART SURGERY REQUIRES TEAMWORK



That surgery to correct a congenital heart defect in a child is a team effort is evident from this picture taken during an open-heart operation at the National Heart Institute's Surgery Branch in the Clinical Center. More than a dozen people—surgeons, anesthesiologists, nurses, and technicians—are needed in the operating room. Some are not visible in this picture. Two-thirds of the Heart Institute's surgical patients are children. The heart-lung machine and its operator are in the left foreground.—Photo by Jerry Hecht.

MEASLES

(Continued from Page 2)

Secretary Celebrezze characterized the field trials as "a long and painstaking evaluation."

"This was made possible," he said, "by the cooperative efforts of scientists—both in and out of government—by physicians, the pharmaceutical industry, and thousands of unselfish and courageous parents who have permitted their children to participate in the field trials. This splendid teamwork between science, government, industry, and the general public has scored a great victory for better child health which will be hailed in all countries and by all people."

The Agency for International Development has set aside \$500,000 for the purchase of vaccines and equipment, and for training teams of technicians in a dozen African nations under PHS supervision.

Secretary Celebrezze said that "as supplies of the measles vaccines become available in the coming months and as children are vaccinated in increasing numbers, we will be well on the way to eradicating a disease that, down through the centuries, has killed millions of children and left others impaired mentally or physically."

"Speaking for the Department of Health, Education, and Welfare," he added, "I congratulate all those who have contributed in any way toward this great achievement."

Long-Term Cell System Is Developed at NIAMD

A scientist at the National Institute of Arthritis and Metabolic Diseases has demonstrated the successful long-term cultivation of mouse peritoneal macrophages in a new synthetic medium.

The new cell system may provide an important research tool for studies of various host-parasite relationships, drug activity against intracellular parasites, histochemical enzymatic location, and of the effects of hormones, histochemical enzymatic location, and of the effects of hormones, radiation, and altitude, among other agents and stresses, on the growth of macrophages.

Although peritoneal macrophages have been used extensively for studies of the host-parasite relationship, the technique for cultivation of these cells has been unsatisfactory: the cell population of cultures decreases rapidly within a few days and difficulties arise during attempts to maintain macrophages for longer periods of time.

The NIAMD scientist, Dr. Y. T. Chang, a guest worker from the Leonard Wood Memorial (American Leprosy Foundation), developed the long-term cell system chiefly for the growth of the hitherto non-cultivable *Mycobacterium leprae murium*, a bacterium

Cardiovascular Diseases In Yugoslavia Will Be NHI Study Project

Plans have been outlined for an epidemiological study of cardiovascular diseases in Yugoslavia as a cooperative project between the National Heart Institute and the University of Zagreb School of Public Health. The project will be financed by PL 480 funds which are available to NIH for the support of collaborative research agreements in those countries where such currencies exist.

The general plan for this study was agreed upon with Dr. Bojan Pirc, Professor of Epidemiology of the Zagreb Institution, during a recent visit to Yugoslavia by Dr. Harold Dorn, NHI Biometrics Research Branch Chief; Dr. Thomas Dawber, Director of NHI's Framingham Heart Study; Dr. William Zukel, NHI Associate Director for Collaborative Studies; and Dr. Jack Strong, Associate Professor of Pathology at Louisiana State University.

Purpose Explained

The purpose of the study is to determine the relationship between environmental patterns of living as they relate to the development of coronary heart disease. Investigators will attempt to take advantage of the differences in patterns of living between population groups in Yugoslavia.

The project will begin next September in the City of Remetinec, a suburb of Zagreb.

After the Yugoslavian investigators have obtained experience in carrying out the study in the Remetinec area, a further study is planned in another area where there is a Moslem population with different patterns of diet and culture.

causing a leprosy-like condition in mice, to provide a means for rapid testing of possible new anti-leprosy drugs.

Since this organism grows and multiplies very slowly, the best method of growing it would be to use a type of host-cell which also multiplies very slowly, but which can be maintained in a good condition for a long time, permitting lengthy observation. In a cell such as the macrophage, changes in the bacteria can readily be observed.

In the new medium, Dr. Chang has been able to grow and maintain macrophages in good condition for more than 200 days. Successful growth of *M. leprae murium* has been obtained in this cell system.

Dr. Chang's work will be presented at the annual meeting of the Federation of the American Societies for Experimental Biology in Atlantic City this month.

Editors, Scientists Explore Aspects of Scientific Communication, Information

By Herbert B. Nichols

More than 100 editors of biological journals met in Washington March 18-20 to confer with other national leaders concerned with scientific communication and information, in an attempt "to put our house in order," as more than one speaker said.

There is, however, much diversity of thought concerning what needs to be done.

Dr. David E. Price, Deputy Surgeon General of the Public Health Service, discussed recent preliminary steps taken within the Service, which he said "led to barriers that have temporarily slowed us down."

Barriers Cited

He referred principally to a "lack of legislative authority to carry out action programs" and "the absence of a definite dividing line between responsibility and authority of the Federal Government in such matters and the private sector of our economy."

Among many questions seeking answers, he posed the following: How should Federal interest be demonstrated? Is direct financial support inevitable? How much control will professional journals surrender—over the economy of production, for example; over the quality of editorial criticism; over format and use of illustrations?

"We find ourselves," he said, "with no clear authority to assist in the support of new journals or to expand older ones. . . . It is clearly not enough to say that journals are simply reporting mechanisms. They are part of the research process itself. Papers published help mold and discipline the directions taken by future research."

Improvements Needed

"We have the finest biomedical communications system in the world, but we are caught in the turbulence of scientific revolution and stand at the beginning of a new era in scientific communication. . . . There is no doubt about there being room for improvement."

"I hope we can agree," he concluded, "that the entire idea and process of publishing scientific papers should be reviewed, lightened, and improved at every step."

Dr. Milton L. Zisowitz of Cornell University Medical College was one of two speakers advocating graduate school training in writing for those who will some day be called upon for scientific reports.

He deplored the fact that it is possible at some universities for an English major to get a doctorate and still not have a good course in composition, and that in medical schools proper writing training is almost unheard of.

He spoke caustically about those

who believe "It takes years to learn how to listen to a heart, but any fool can write."

Dr. Burton Adkinson of the National Science Foundation (who was credited by Conference Chairman Fred R. Cagle with having persuaded biological editors to get together for such meetings as this) urged assembled communicators to "take leadership in improving the availability of scientific reports," reduce their backlogs of unpublished material, and "try to increase the use of page charges for scientific publication and thus avoid outside subsidy."

New Methods Sought

NSF, he said, is striving to encourage publication of scientific material in the usual manner, provide support for abstracting and indexing services, support high quality monograph and proceedings publication (in which commercial publishers see no profit) and to experiment with new ways of getting information to the scientist and the public.

He urged continual study of communication techniques. "Nobody has any way of measuring the communication needs of science," he said. "Many will tell you what they think is needed but they can't define it clearly or precisely."

To those looking to the Government to solve their problems, he said, "Information is an integral part of research and development. It should not be considered free for the asking. Publication charges should be accepted as an integral part of R and D costs."

Warns Against Subsidies

Page charges, he said, should be given serious consideration. "Remember," he added, "that direct subsidy usually leads to control by the subsidizer. If the Government gets in, it will tell you how to do your job. Figure out fair charges and make them stick."

Guest speaker following the annual dinner was Julius Cahn, project director for the Subcommittee on Reorganization and Internal Organization of the Senate Committee on Government Operations.

Headed by Senator Hubert Humphrey of Minnesota, the subcommittee has been urging establishment of federal centers for scientific communication.

Mr. Cahn commented favorably on recent actions taken both in and

NINDB Visiting Scientist Honored by Air Force For Service in Guam

Dr. K. V. Mathai, a visiting scientist at the National Institute of Neurological Diseases and Blindness, was commended recently for his humanitarian efforts and medical assistance on the Island of Guam during the past year.

In a letter of appreciation, Maj. Gen. Oliver K. Niess, Surgeon General of the Air Force, praised Dr. Mathai for his service to the people of Guam during the typhoon "Karen" and for his assistance following an emergency plane landing that involved the injury of military personnel.

Dr. Mathai, who was the only neurologist and neurosurgeon on Guam at the time of these emergencies, is Associate Professor of Neurosurgery at the Christian Medical College, Vellore, India.

Since 1961 he has been on assignment as a visiting scientist to the Epidemiology Branch, NINDB, where he has been involved in studies of amyotrophic lateral sclerosis and multiple sclerosis in the Pacific area.



Maj. Gen. Richard L. Bohannon, Deputy Surgeon General of the Air Force, presents letter of appreciation to Dr. K. V. Mathai for his service to the people of Guam.

out of government to get at the heart of current communication difficulties and urged anyone with ideas to "come up on Capitol Hill and let us hear them. We hope you will speak freely. The Congress is reaching out and wants many opinions."

So much of what we hear about scientific communication and information has been monologue, he said, that we are concerned over the possibility that we are listening to the proverbial blind men describing an elephant according to where their fingers happen to touch.

"How scientific information is to be dispensed, you best are able to decide," he asserted. "A number of years ago facsimile newspapers were predicted. They haven't appeared yet. We can imagine all sorts of mechanization for reports,

Five New Virus Strains Recovered by NIAID Named Picornaviruses

Drs. Karl M. Johnson and Leon Rosen of the Laboratory of Infectious Diseases, National Institute of Allergy and Infectious Diseases, have reported the recovery of five new strains of viruses with fundamental properties corresponding to those for which the International Committee on Virus Nomenclature has proposed the name "picornaviruses."

The American Committee on Enteroviruses has since reviewed the protocols for the five new strains and has designated them as "picornaviruses unclassified, types 2-6 (U. S.)." Type 1 (U. S.) is proposed for Enterovirus 59.

59 Serotypes Noted

With the introduction of new techniques of virus cultivation, the family of human enteroviruses has continued to grow until it now includes 59 distinct serotypes.

In the American Journal of Hygiene Drs. Johnson and Rosen present data showing that the five virus serotypes recovered from the human oropharynx were ether-resistant, were no larger than 33 mu, and produced in cell cultures cytopathic effects similar to those induced by enteroviruses.

In reciprocal neutralization tests, the viruses were not related serologically to one another nor were they related to any of the enteroviruses previously recognized. They were also distinct from six "rhinoviruses" so designated by workers in England.

Surveys of human sera indicated that a majority of individuals 30 years of age and older possessed neutralizing antibodies against each virus.

including central banks of information serving regional banks. But the basis of our evaluation must be the human need. Many have dreamed great visions and many visions may come to pass. What they look like will be up to you. All we can do is help.

"No matter what may be added," he concluded, "let it be related to the world as it is. If senior members of the scientific community stop reading journals and if communication should take the form of an 'invisible college' as the source of creativity, let's recognize it and help it to progress.

"If journals are 'all trash' then let's examine the situation and see where we can best place the taxpayers' money to insure the best results. We must be honest with ourselves and be creatively dissatisfied because of undone tasks."

Int'l Union Cancer Group Tours NIH Facilities As Guests of NCI

Nine members and guests of the Committee on Voluntary Organizations of the International Union Against Cancer visited the National Institutes of Health March 29 as guests of the National Cancer Institute during their 2-day visit to Washington.

The committee is investigating the organization, structure, and financing of voluntary cancer organizations in member countries.

Its members were especially interested in examining the relationship that exists in this country between the National Cancer Institute, as a government agency, and the American Cancer Society, the voluntary agency.

Dr. Weiger Is Host

The visitors were met at the airport by Dr. Robert Weiger, NCI Assistant Director, official host for the visit, and by James F. Kieley, NCI Information Officer.

The first day's activities included a visit to the Surgeon General's Office, where Dr. James Watt, Director, Division of International Health, OSG, addressed the group.

The official greeting was followed by receptions at the embassies of the countries represented by the touring committee members.

Led by Dr. John R. Heller, Jr., Committee Chairman and President of the Memorial Sloan-Kettering Cancer Center and a former Director of the NCI, the visitors spent the second day of their visit touring NIH facilities.

They were welcomed to the reservation by Dr. G. Burroughs Mider, NIH Director of Laboratories and Clinics, and were received by the NCI Director, Dr. Kenneth M. Endicott.

Visitors Listed

Besides Dr. Heller, the group included Mildred Allen, Committee Secretary and Head of the American Cancer Society's foreign desk; Dr. Antonio Prudente and his wife, Mrs. Carmen Annes Dias Prudente of Brazil; Dr. M. E. A. Kharadly of Egypt, Niilo Voipio of Finland, Dr. D. J. Jussawalla of India, Dr. Paul Ponthus of Lebanon, and Dr. J. F. Delafresnaye of Switzerland.

Short talks by Drs. Mider and Endicott stressed the cooperation that exists between the NCI and the ACS. The group was received at the Clinical Center by Dr. Jack Masur, Clinical Center Director.

Dr. Charles G. Zubrod, NCI Director of Intramural Research, briefed the visitors on the current intramural research and clinical activities of the Institute, with special emphasis on the work being done by the recently formed Human Cancer Virus Task Force and the Acute Leukemia Task Force.



A quartet of keymen in the National Health Agencies and Federal Service Joint Crusade show their units have achieved 100 percent participation. They were among the first ten keymen—all women—to report full participation. These four (left to right) are Beverly Mittenberg, Sharon Kinder, Marilyn Bierley, and Sandra Shaw, all of NHI.—Photo by Bob Pumphrey.

After lunch at the National Naval Medical Center with officials of the Cancer Institute, the visitors returned to the reservation for briefings on some of the current research of NCI and the Bureau of State Services.

NCI speakers at this session included Dr. Michael B. Shimkin, Associate Director for Field Studies; Dr. Robert D. Coghil, Acting Chief, Cancer Chemotherapy National Service Center; Dr. T. Phillip Waalkes, Chief, Clinical Branch; Dr. Wilhelm C. Hueper, Head, Environmental Cancer Section; William Haenszel, Chief, Biometry Branch; and Dr. Lewis C. Robbins, Chief, Cancer Control Branch, Division of Chronic Diseases, BSS.

The guests then visited the National Library of Medicine, where the Director, Dr. Frank B. Rogers, conducted them on a tour of the building.

Spring Fashions, Weird Hats On View Here Next Week

The latest in fashions for men, women and children will be modeled at a Spring Fashion Show on Thursday, April 18, at 7:30 p. m. in the 14th floor assembly hall of the CC.

Professional models will present the fashion show for Clinical Center patients, NIH employees, their families, and friends also are invited.

An "Easter Hat" contest in which prizes will be awarded for the most original, prettiest, and funniest hats designed by patients will be a feature of the show.

Estelle Druskin, of the Models Guild, Inc., Washington, D. C., will sponsor this preview, with Harriet Baird as fashion coordinator.



NCI Director Kenneth M. Endicott, pictured with members of the Committee on Voluntary Organizations of the International Union Against Cancer during the group's tour of NIH, March 29. Front row, left to right: Dr. Endicott, Dr. John R. Heller, Jr., Committee Chairman; Mrs. Carmen Annes Dias Prudente and Dr. Antonio Prudente of Brazil. Back row, left to right: Dr. Robert Weiger, NCI Assistant Director; Dr. Paul Ponthus of Lebanon, Mildred Allen, Committee Secretary; and Dr. M. E. A. Kharadly.—Photo by Bob Pumphrey.

NHA-FSJC Drive Now Well Ahead Of '62 Total

The Division of Research Facilities and Resources was the first of the 17 NIH units to reach 100 percent in the National Health Agencies and Federal Service Joint Crusade Campaign, according to last week's tabulations. DRFR reported 100 percent in both areas of the campaign.

The National Institute of Child Health and Human Development was second with 95 percent in both drives, followed by the National Institute of General Medical Sciences, with 73.3 percent in both areas.

Nearing the three-quarter mark in the current campaign, NIH has almost as good a percentage now as it did at the end of last year's drive.

Ahead of Last Year

The NHA percentage total here last week was 42.7, while FSJC was 41.6. At the end of last year's drive, NIH had 50.6 and 48.2, respectively.

In total contributions this year, the Division of Research Services is first so far with 687 and 697. The Clinical Center is second with 609 and 547, followed by the National Cancer Institute with 440 and 437.

The Clinical Center shows the greatest improvement in participation over last year's campaign, with a 99 percent increase in NHA and 88 percent in FSJC. The National Heart Institute is second with increases of 90 percent and 84 percent.

Credit Union Joins

A new unit which kicked off its drive last week, the NIH Federal Credit Union, will report with the next returns. This will bring the total number of reporting units to 18.

So far NIH has a total of 3,923 contributions for the NHA and 3,839 for the Joint Crusade. This reflects almost 42 percent participation, which is an increase of 24 percent over the prior *Record* report.

"The increase in interest and participation in the campaign is very heartening," said Dr. Ralph E. Knutti, NHI Director and NIH Campaign Chairman.

"NIH is holding its own so far. With a good effort in the final days of the campaign, we can improve on our record of last year, but more importantly, offer greater help to these worthy organizations."

Motto hanging on office wall of a research department: "This problem, when solved, will be simple."—Reader's Digest.

DHEW to Honor Six at Ceremony

(Continued from Page 1)

tions to endocrinology and the drug treatment of cancer which produced the first long-term control of choriocarcinoma, a malignant disease."

In 1957 he received the Anne Frankel Rosenthal Memorial Award of the American Association for the Advancement of Science for out-



Mr. Seggel



Mr. Landau

standing achievement in the field of cancer research. That same year he was the recipient of a DHEW Superior Service Award.

Dr. Pittman will be honored for "outstanding contributions to the understanding of the relationship between the effectiveness of bacterial vaccines in man and their potency as determined by laboratory tests."

Dr. Tobie's award is for "meritorious research on detection of malarial antibodies and for effective administration of the Laboratory of Immunology, NIAID."

Dr. Hatchett will be cited for "his major contribution to the mission of the Public Health Service through his personal achievement and exemplary direction of his Branch."

Landau, Seggel Cited

Mr. Landau will receive his award "in recognition of meritorious contributions to human health through a better understanding of the health effects of air pollution."

Mr. Seggel will be honored "in recognition of his important contributions to the research mission of the National Institutes of Health through outstanding leadership in the formulation and execution of major management programs."

Dr. Hertz has served with the Federal Government for over 20 years, having joined the Division of Physiology, National Institute of Health in 1941. In 1945 he became a staff member of the National Cancer Institute, and in 1947 was appointed Head of the Endocrinology Section.

Since 1952 he has been Chief of the Endocrinology Branch where he has been responsible for the development of one of the major NCI research programs. He initiated the Institute's clinical research activities in the Washington area and admitted the first patient to the Clinical Center in 1953.

As Chief of the Endocrinology Branch, Dr. Hertz formulates, organizes, and administers an integrated program of clinical and biological research designed to elucidate the role of the glands of internal secretion in the causation, development, and treatment of cancer. Emphasis is placed upon tumors arising either in hormone-producing or hormone-sensitive organs.

Author of more than 50 scientific publications, Dr. Pittman is an internationally known bacteriologist. Since coming to NIH in 1936, she has played a role of increasing importance in connection with both control of and research on immunizing agents of bacterial origin.

In recent years this area of activity has been expanded to include all allergenic products. A Diplomate of the American Board of Microbiology, Dr. Pittman was the only woman ever to be elected (1955) President of the Washington Academy of Sciences.

Study Area Noted

A veteran of 17 years of service at NIH, Dr. Tobie's area of study as Head of NIAID's Applied Immunology Section, Laboratory of Immunology, involves such disciplines as parasitology, bacteriology, and physiology.

His duties involve the fundamental aspects of immune responses in animals or man to a variety of foreign proteins or other antigenic substance of infectious organisms.

Dr. Hatchett joined NIH in July 1955 as Assistant Chief of the Research Fellowships Review Branch, DRG. In September 1958 he was made Acting Chief of the Branch, and in January 1959 became its Chief. In July 1961 he was appointed Chief of the Career Development Review Branch, into which Fellowships, Training Grants, and the new Research Career Awards Program were centralized.

Develops Review Criteria

As Chief of the CDRB, Dr. Hatchett is responsible for developing the necessary criteria, policies and procedures for the review by NIH of all Fellowships, Training Grants and Research Career Award applications. In Fiscal Year 1963 the Branch has the responsibility for coordinating extramural programs totaling \$170 million.

Mr. Landau has served in various Federal agencies and departments since 1941 in the field of economic-statistics. He joined PHS in 1957 and was Chief of the Biometry Section, Field Studies Branch, Division of Air Pollution from August 1959 to October 1962. He came to NIH in October 1962 as Chief of the Biometrics Section, Collaborative Research, NCI.

DRG Issues Summaries Of Grants Meetings

Dr. Dale R. Lindsay, Chief of the Division of Research Grants, has announced that summaries of recent meetings between Public Health Service officials and representatives of grantee institutions are being mailed to the business offices of all grantee institutions.

The summaries cover the series of meetings sponsored by the Association of American Medical Colleges in January of this year between PHS officials and representatives of medical schools.

They also cover a similar series of meetings held in February which brought together PHS officials and representatives of grantee institutions other than medical schools.

The discussions were held to brief grantee institution representatives on new grants administration guidelines and to amplify information presented in the new Research Grants Manual.

He is being cited for his work as Chief of the Biometry Section from 1959 to 1962, during which time he was its principal investigator and was responsible for the planning, organization, conduct, analysis and direction of clinical, epidemiologic, and demographic research investigations.

Mr. Seggel, a veteran of 23 years of Federal service, joined NIH as Executive Officer in 1958. From 1956 to 1958 he was Director of the Office of Management Policy, Office of the Secretary, DHEW.

As Executive Officer, Mr. Seggel is the chief advisor to the NIH Director on management policy, organization, and administration.

2 NINDB Teaching Films Will Be Translated for South American Use

At the request of the Public Health Service Film Center in Atlanta, two teaching films produced by the National Institute of Neurological Diseases and Blindness will be translated into Spanish for distribution to medical institutions in South America.

The films, entitled "Neurological Examination of the Newborn" and "Neurological Examination of the One-Year-Old," depict methods for diagnosing neurological procedures in newborn and one-year-old infants by contrasting normal and abnormal responses to various stimuli.

Films Widely Distributed

The two films already have had a wide distribution and, on request, have been presented at national meetings of the American Medical Association, the American Academy of Neurology, and at international film festivals sponsored by the World Medical Association in Berlin and Rio de Janeiro in 1960 and 1961, respectively.

More than 300 requests from medical societies, physicians, and other scientists have been filled by the AMA and PHS film libraries since NINDB turned over distribution of the films to the PHS Communicable Diseases Center in Atlanta, after performing this function for the first two years.

The films also are being distributed internationally by the World Federation of Neurology, and are being used by 15 medical institutions participating in NINDB's collaborative perinatal study of 50,000 mothers and their babies.



Twenty-two of the 28 staff members appointed, as of April 1, to the National Institute of Child Health and Human Development are pictured in this smiling group. Front row, left to right: Dr. Eugene Byrd, Aging Research Specialist; Dr. Norman F. Gerrie, Acting Chief of the Program Planning and Analysis Branch; Dr. Robert A. Aldrich, Institute Director; Dr. Donald Harting, Assistant Director; and Calvin B. Baldwin, Executive Officer. Standing, left to right: Gerald Atchison, Budget Officer; Miss Wanda Burnett, Mrs. Alida McBirney, Mrs. Virginia Hitz, Miss Janet Thompson, Paul Waugaman, Administrative Officer; Mrs. Agnes Schroeder, Dr. Helen Ossosky, Pediatric Cardiology Consultant; Mrs. Florence Mann, Miss Dorothy Jeanne Davis, Information Specialist; Mrs. Arline Ludwig, Miss Mary Belaski, Mrs. Dorothy Rahley, Miss Lillian Freedman, Program Analysis Specialist; Mrs. Frances Lee, Mrs. Edna Scruggs, and Dr. Elizabeth Frame, Developmental Biology Consultant. Not pictured are Dr. Gene Ward, Special Assistant to the Director; Mrs. Goldie Rubin, Dr. Morris Feitel, Developmental Pharmacology Consultant; Mrs. Anna Kretzing, Mrs. Helen White, and Mrs. Irene Lewis.—Photo by Bob Pumphrey.

CANCER CAUSES

(Continued from Page 1)

phasize the importance of these studies.

"They will approach the very difficult problem of determining the respective roles of various known or suspected causes of cancer as studied under carefully controlled laboratory conditions.

"This new research project will supplement and support the research and control efforts of several other Public Health Service programs which are directly concerned with the growing problem of environmental hazards to man."

The National Cancer Institute and the Atomic Energy Commission will work together in planning the research to be undertaken. The Commission will provide the necessary facilities, and in addition will continue its own research program at ORNL on the effects of radiation on living organisms.

NCI Finances Program

It is anticipated that the program will operate initially at an annual level of \$500,000, which will be financed by the Institute.

The National Cancer Institute will assign one or two key employees to work on the project with Oak Ridge Laboratory personnel.

The joint program will include a lung cancer study in which animals will be exposed to some of the types of chemicals, radiation, and viruses to which man is constantly exposed.

Radiation, for example, will be given both in doses large enough to produce cancer and in smaller doses corresponding to the low levels normally present in the human environment.

The chemicals to be used will include many that have been shown to cause cancer in various animal species—with emphasis on the kinds of substances present in, for example, automobile exhausts and certain industrial wastes—as well as others that are not known to cause cancer. The chemicals will be released into the chambers as aerosols that the animals will inhale.

Other Studies Listed

One of the studies will seek information which may help explain whether the increased incidence of cancer in middle-aged and elderly people results from a greater sensitivity of aged tissues to cancer-causing agents acting over relatively brief periods of time or from the cumulative effects of lifelong exposure to such agents.

Three other studies are being considered for the program.

One is an investigation of the cancer-producing effects of small amounts of chemicals and low doses of radiation given to animals in various sequences to simulate as far as possible with laboratory

Dental Institute Staff Honors Dr. Arnold

Dr. Francis A. Arnold, Jr., celebrated his tenth anniversary as Director of the National Institute of Dental Research on April 1. He has served with the Public Health Service since 1936, with NIH since 1937, and with NIDR since the Institute was established in 1948.

A pioneer in the study of fluorides and their effect on the teeth, Dr. Arnold has reported extensively on oral bacteriology, oral pathology, and the epidemiology of dental caries. His reports on the production of carious teeth in hamsters led the way to the extensive use of these animals in dental research.

In honor of the tenth anniversary, NIDR staff members baked ten cakes and served them at an informal ceremony in the Institute's conference room.



A recent picture of Dr. Francis A. Arnold, Jr., Director of the National Institute of Dental Research, at his desk.—Photo by Bob Pumphrey.

animals the conditions under which man is ordinarily exposed to such factors.

Another is an investigation of the biochemical mechanisms by which chemicals and radiation produce cancer and, in particular, of the role of substances produced within living tissues as a result of exposure to radiation.

The third study, also an effort to increase understanding of the mechanisms by which cancer is produced, will include attempts to find out why certain chemicals that cause mutations (changes in the heredity-bearing genes in living cells) do not always cause cancer and why cancer-causing chemicals do not always produce mutations.

Heart Diseases account for more than twice the number of days lost in strikes and work stoppages, according to the Washington Heart Association. For every person who died last year as a result of industrial accidents or disease, 50 died of cardiovascular disease.

NIH Will Participate in Research Program for Outstanding Students

NIH will participate in the Fourth Research Participation Program for senior high school students which is supported by the National Science Foundation. This nationwide program is designed to provide opportunities for intensive experience in science and mathematics to approximately 7,500 high school students by 164 colleges, universities, and research organizations.

Participation by NIH will involve an 8-week program in cooperation with the Joint Board on Science Education and American University, beginning June 19 and ending August 16.

Scientists Urged to Select

A group of six or eight outstanding students in the Washington area has been assigned to NIH. They will work a full 8-hour day without cost to NIH.

Scientists here who are interested in the program are urged to make their selections as soon as possible. The students' background folders are available for review now in the CC Clinical and Professional Education Branch, Bldg. 10, Rm. 2B50.

More detailed information about this Student Program may be obtained from Joseph Staton, Ext. 3381.

9 From OSB Complete NIH Supervisory Course

Donald B. Cushing, Chief of Office Services Branch, presented certificates on April 3 to nine supervisors and working leaders of the Transportation Section, OSB, upon completion of the NIH Basic Supervisory Course.

The course was conducted 2 hours each week for 12 weeks by Charles B. Mitchell of the Employee Development Section, Personnel Manage-

Kennedy Is Secretary Of Advisory Committee

Dr. Clinton C. Powell, Director of the National Institute of General Medical Sciences, has announced the appointment of George Howe Kennedy as Executive Secretary of the Advisory Committee on Epidemiology and Biometry of the Research Training Grants Branch.

As Scientist Administrator, Mr. Kennedy will assist the Committee by facilitating the analysis and review of applications for research training grants and in the coordination and administration of existing programs.

50 Programs Supported

Currently there are approximately 50 programs in this area of research which are being supported by the Public Health Service at about \$3.5 million a year.

Mr. Kennedy came to NIH in 1960 as a Public Health Research Program Analyst and was assigned to the staff of the Research Grants Branch, NCI. He had particular responsibilities in such fields as human ecology, general medicine, medicinal chemistry and the use of computers in the advancement of cancer research.

Mr. Kennedy is the author of a number of papers in the fields of nutrition, biological assay and biostatistics.



Transportation Section staff members who completed the NIH Basic Supervisory Course are pictured with their instructor, Charles Mitchell. Standing (left to right) are Frank Curtis, Charles Lindsay, Harold Shankle, Donald Allnutt, Edgar Forrest, and Mr. Mitchell. Seated (left to right) are Carroll Butts, Emily Macafee, Edith Erzen, and Joseph Wilson.—Photo by Ed Hubbard.

COOPERATION

(Continued from Page 1)

institutions as a "grand alliance" which has resulted in rich dividends in research and in the life sciences.

This alliance, he said, has been an "intelligent, effective, rapid, and productive build-up of the Nation's health research capability. . . The cold facts of experience do not support in any way a recent characterization of this relationship between science and government as a 'perilous partnership'."

Dr. Frederick L. Stone, Chief of the Division of Research Facilities and Resources, spoke on the subject of professional support for scientists.

Institutions Considered

He emphasized that in reviewing a grant application, major consideration is given to the caliber of the investigator's entire institution.

"It is very much in the enlightened self-interest of the scientist," he said, "that he contribute to the general level of excellence of his institution. . . One responsibility scientists must share is participation in the establishment of policies and plans that influence the future of their institutions."

Summarizing the discussions at the meeting, Dr. Leonard M. Schuman, Professor of Epidemiology at the School of Public Health, University of Minnesota, said that although one frequently hears of the competing interests of official and voluntary agencies in biomedical research, Forum participants agreed such competition was not only acceptable but actually highly desirable and a healthy phenomenon.

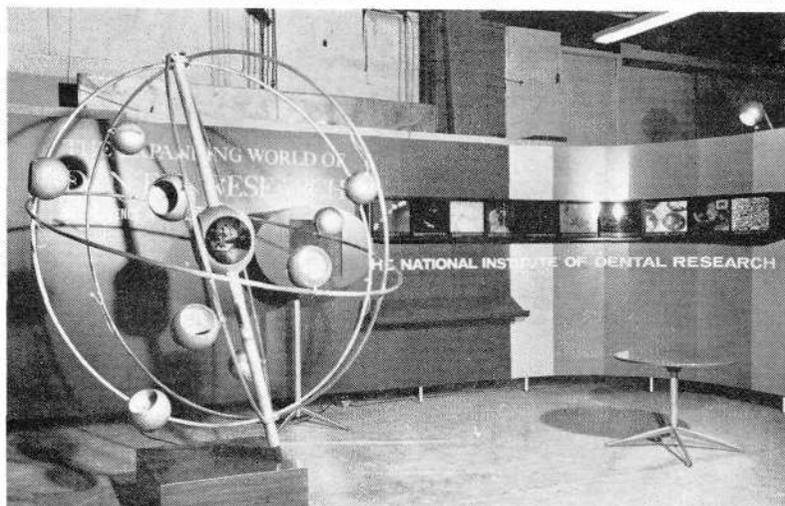
Calls Agencies Remiss

Dr. Schuman pointed out that Forum participants felt "there is a need for an agency which would underwrite high risk research proposals" and that "both governmental and voluntary agencies were remiss in not providing sufficient non-categorical support for research careers."

He said participants had agreed "neither governmental nor voluntary agencies could profitably expand research project funds without providing for research space and personnel." It was suggested, he said, that agencies base programs on the magnitude of the problem, practicality of approach, and available funds, instead of programming on the basis of applications received. But it was concluded, he said, that "such programming should not be so rigid as to exclude worthy research proposed by an investigator in the agency's area of interest."

Dr. Schuman reported that For-

EXHIBIT USES GLOBES ON ATOMIC MODEL



In this exhibit displayed by the National Institute of Dental Research at the Pittsburgh meeting of the International Association for Dental Research, March 21-24, moving globes on a large atomic model illustrate the many basic sciences involved in dentistry. Each small globe represents a miniature laboratory in which tiny scientists work with miniature pieces of equipment representing electron microscopes, germ-free tanks, anthropological digs, and multi-colored test-tubes. Fifteen scientific fields are demonstrated, including anatomy, crystallography, microbiology, nutrition, epidemiology, and materials science. Large color transparencies show ongoing research programs, and a slide projector presents problems awaiting exploration. The exhibit, titled "The Expanding World of Dental Research," was one of the highlights of the meeting attended by more than 1,000 research scientists from all parts of the world. Dr. Seymour J. Kreshover, Associate Director of NIDR, is President of the International Association for 1963.



Dr. Frederick L. Stone, Chief of the Division of Research Facilities and Resources, as he prepared to address the National Health Forum on "Professional Support in Health Sciences." —Photo by Sam Silverman.

um participants attributed the current crucial shortage of professional technical personnel partly to the fact that, in too many instances, such persons are not recognized as partners in research and are not given credit for their "indispensable contributions."

Dr. Tuve, NIGMS, Wins Performance Award

Dr. Trygve W. Tuve, recently appointed Assistant Chief of the Research Grants Branch, National Institute of General Medical Sciences, has received a cash award for sustained superior performance.

He was cited for demonstrating "an outstanding aptitude for scientific administration in the extramural programs of the NIH" and for "consistently applied judgment and wisdom in performing his duties and effectively communicating results."

Praised by Dr. Brewer

In presenting the award, Dr. Carl Brewer, Branch Chief, said, "His outstanding performance has assisted greatly the quality of the work of the Branch during its difficult and formulative period."

A native of Washington, D.C., Dr. Tuve received the Ph.D. degree in 1958 from Cornell University. The same year he came to NIH, where he spent four years in intramural research programs, serving as a Research Fellow in the National Heart Institute and as a chemist with the National Institute of Arthritis and Metabolic Diseases.

In August of 1961 Dr. Tuve joined the Research Grants Branch of the then Division of General Medical Sciences as a Program Analyst, and in February of this

CC Defeats Greenhouse For Intramural League Basketball Championship

The 1962-63 NIH Intramural League basketball season ended with a luncheon and award of trophies to the League tournament champions and second place team on March 18. Evelyn L. Attix, President of the sponsoring Recreation and Welfare Association of NIH, made the presentations.

Robert M. Jackson, Captain of the Clinical Center team, which finished first in the League and won the tournament playoff against the second place Greenhouse team, accepted the tournament trophy for his team. Individual trophies also were awarded to members of the winning teams.

Record Is 14-1

The CC squad completed the season with a 14-1 record, while the Greenhouse team compiled an 11-4 record. Other teams were Pharmacy, Engineers, Cancer Institute, and National Library of Medicine.

About 30 attended the noontime luncheon, at which Frank M. Perry and Leslie L. Love also were presented with gifts of appreciation by the League for serving as referees throughout the season.

Members of the CC team were Mr. Jackson, Dr. Gordon Guroff, Walter A. Fredricks, Dr. Carwile E. Leroy, Dr. Michael W. Mosesson, Joseph A. Miles, Dr. Marshall Kaplan, and Ellsworth C. Freeman.

Members of the Greenhouse team were Lawrence S. Brown, Captain; Raymond Rustin, Theodore R. Catchings, Ernest W. Huggs, Carlos L. Spear, Reginald L. Singleton, Dr. Orlando W. McBride, and Samuel E. Fountain.



Dr. Trygve Tuve (right) receives superior performance award from Dr. Carl Brewer.—Photo by Sam Silverman.

year was promoted to Scientist Administrator.

He is the author of scientific papers dealing with the metabolism of selenium and the isolation and characterizations of ribonucleases.