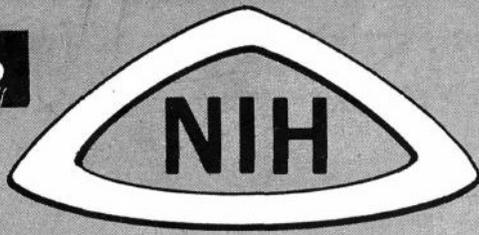


the



Record

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

December 9, 1969
Vol. XXI, No. 25

NATIONAL INSTITUTES OF HEALTH

National Heart and Lung Institute's New Name Reflects Its Expansion

The redesignation of the National Heart Institute as the National Heart and Lung Institute was officially announced yesterday (Dec. 8) at a forum held at NIH.

The change in name and expansion of Institute functions was recommended by HEW Secretary Robert H. Finch and entered in the Federal Register on Nov. 18.

Dr. Theodore Cooper, Director of the National Heart Institute since March 1968, will continue as NHLI Director.

The NIH meeting, chaired by Dr. Robert Q. Marston, NIH Director, brought together representatives of the Department; the Office of the Director, NIH; various Federal health agencies, and medical institutions across the country with research and clinical programs in respiratory physiology and lung diseases.

The meeting was a first step toward planning a coordinated program in the area of lung diseases. Out of it will come recommendations for research and training priorities in the respiratory disease area.

Also discussed was the relationship of the new Institute to related activities in the Department and to NIH programs.

Dr. Benacerraf to Give Annual Dyer Lecture

Dr. Baruj Benacerraf, chief of the Laboratory of Immunology, National Institute of Allergy and Infectious Diseases, will present the 18th Annual Dyer Lecture on Wednesday, Dec. 17, at 8:15 p.m., in the Jack Masur Auditorium, Clinical Center.

The subject of his lecture will be "Cell Selection and Cooperation in the Immune Response."

He will analyze some basic phenomena characteristic of the immune response in an effort to formulate a unified concept at the cellular and molecular level.

Cell Process Described

Dr. Benacerraf will discuss the conditions governing the selection of certain cells committed to the development of specific immunoglobulin molecules.

The practical consideration which can be drawn regarding optimal conditions for immunization will also be covered.

Dr. Benacerraf, who has been responsible for training other outstanding immunologists, is a world authority in the field of immunological research. He is the author or co-author of more than 190 articles.

Dr. Benacerraf came to NIAID in 1968 from New York University
(See DYER LECTURE, Page 5)

Dr. Berliner Cites Need to Clarify Ties Between Medical Research, Medical Care

Medical research, good medical education, and good medical care are inseparable, and there is too little general appreciation of the extent of their mutually beneficial interdependence, Dr. Robert W. Berliner told the American Society of Nephrology.

As outgoing president of the society, Dr. Berliner, who is NIH Deputy Director for Science, at a Dec. 1 meeting discussed "The Relevance of Medical Science to Medical Care."

The incoming president is Dr. Louis G. Welt, chairman of the Department of Medicine, University of North Carolina School of Medicine.

Looking back over the 3 years since the organization of the American Society of Nephrology, Dr. Berliner noted, "We have failed to make clear the many inseparable ties between medical research and adequate medical care."

"We have permitted to go largely unchallenged the nostalgic illusion that somehow things were better in the good old days when the horse and buggy general practitioner seemed available to make a house call at any time of day or night."

Research Functions Noted

"Admirable as he may have been and whatever comfort and reassurance he may have offered, the chances that he might be able to alter significantly the course of his patient's illness, at least in a favorable direction, were minimal."

After speaking of the primary aim of medical research—increased



Dr. Berliner, one of the world's foremost renal physiologists, led the way to understanding the balance of sodium and potassium salts in blood.

understanding of man and his disorders to provide the means for prevention and treatment of disease—Dr. Berliner noted that research serves additional vital functions in the education of physicians.

Dr. Berliner observed that nothing fosters the development of the necessary critical ability to distinguish assertion from evidence, dogma from documented fact, as does an adequate experience in trying to develop evidence itself—as in research.

"Such experience," he said, "... is absolutely essential as a part of the background of the teacher of medicine if he is to separate the relevant and probable from the mass of inevitably conflicting information."
(See DR. BERLINER, Page 6)

Bowery Named Director Of Research Resources

Dr. Thomas G. Bowery has been named Director of the Division of Research Resources by Dr. Kenneth M. Endicott, Director of the Bureau of Health Professions Education and Manpower Training.

Dr. Bowery has been the Division's Acting Director for the past year.

Prior to joining the former Division of Research Facilities and Resources as assistant chief in November 1965, he was Extramural Operations and Procedure officer in the Office of the Director, NIH.

Dr. Bowery joined NIH in 1962, in the first group of NIH grants associates.



Dr. John F. Sherman, NIH Deputy Director (second from left), discusses reports from all NIH components on EEO progress during first plenary session of Equal Employment Opportunity Conference held here Nov. 26. Waiting to present their views are (from left): Richard L. Seggel, Associate Director for Administration; John M. Sangster, Director, Office of Personnel Management, and James R. Gregg, Office of Financial Management. (See story, other pictures on Page 8.)

NIH Record Takes a Holiday—Next Issue Set for January 7

As in previous years, this issue of the *NIH Record* combines the pre-Christmas and New Year's issues. The *Record* will be off the press next on Jan. 7.

To each of our readers, a Merry Christmas and a Happy New Year.

the NIH Record

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NIH Television, Radio Program Schedule

Television

NIH REPORTS

WRC, Channel 4
 New series begins
 January 1970

Radio

DISCUSSION: NIH

WGMS, AM-570—FM Stereo
 103.5—Friday evenings—
 About 9:15 p.m.

December 12

Dr. Charles O. Cranford, coordinator, Dental Auxiliary Utilization programs, Manpower Development, DDH

Subject: Dentistry: Its Emerging Social Conscience

December 19

Dr. Thomas E. Malone, associate director, NIDR

Subject: Extramural Programs in Dental Research

Interview takes place during intermission, Library of Congress Chamber Music Series.

Dr. Saunders Elected to Post in American Institute of Chemists

Dr. J. Palmer Saunders, associate director for Extramural Activities, National Cancer Institute, has been elected vice chairman of the Washington, D. C. chapter of the American Institute of Chemists.

Dr. Saunders, who came to NIH in 1956, has been in his present post since 1967.

Enjoy the Season BUT Park in Legal Areas To Ease Snow Removal

Although it soon will be the "Season to be Jolly," the accompanying snows bring little joy to commuters, including NIH drivers.

With this in mind, plans for snow removal and traffic control are being readied by the NIH Guard Force and the Grounds Maintenance and Landscaping Section to keep all roads and thoroughfares on the reservation safe and clear.

To prevent the hampering of snow removal during emergencies, all NIH personnel are requested to adhere strictly to the "No Parking" areas into which snow will be ploughed.

Cars May Be Snowed In

Cars parked in these restricted areas will be in danger of being completely snowed under. They also impede the maneuvering of trucks used in sanding and salting operations.

Moreover, parking outside of designated areas, such as at the ends of parking lanes, prohibited sides of streets and around circles, will further hamper snow removal operations. Illegally parked vehicles may also be subject to being towed away.

In addition to the restricted areas, there are certain other areas where parking is normally permitted but are designated "Snow Emergency Route. No Parking During Emergency." Personnel using these areas are requested to immediately remove their cars to parking lots as soon as it begins to snow.

Holiday Festivities Planned for Patients Include Bingo, Parties, Visit From Santa

Among the appropriate Christmas traditions at NIH are activities for Clinical Center patients planned by the CC Patient Activities Section.

The program gets into full swing on Dec. 12—patients will play Christmas Shoppers' Bingo.

The CC Christmas tree will arrive on Dec. 15. Patients are invited to help decorate the tree in the CC lobby, Dec. 17.

The first musical program is scheduled for Dec. 16 by the U. S. Naval Academy Chorus.

Many Activities Scheduled

A U. S. Army dance combo will provide "live music" for dancing or listening at the annual Holly Hop held on Dec. 18. Santa Claus arrives on the 19th at the Patient Christmas Open House.

An unusual exhibit of dolls from many countries will be on display, throughout the holidays, in the children's play area. The dolls are from a collection belonging to Dora Marie Paoli, Division of Health Manpower, BEMT.

The exhibit was designed by Charlotte Bloom and Margaret TenEyck, BEMT Visual Information specialists. Mrs. TenEyck's father, Royall T. Webster, built the exhibit in his hobby shop at home.

The Clifton Park Citizens Association will again host the Children's Christmas Party on Dec. 20. Santa will distribute presents to young patients.

A Protestant carol service in the CC chapel will be sung on the evening of the 21st. All patients may attend.

Caroling Group to Entertain

On Christmas eve, CC nursing units will be visited by a caroling group from the community.

Among the seasonal activities during Christmas Week is a trip to see the National Christmas Tree and lighting displays in surrounding communities.

Young patients will ring in the New Year at an early evening New



A big present was given to a little tyke at last year's Christmas Party for Clinical Center patients. The CC Patient Activities Section will again provide an outstanding program for those patients who cannot leave the hospital during the holiday season.

Year's party on Dec. 31. Adult patients will enjoy a New Year's party Jan. 1.

A full schedule of religious services will be offered during the holiday season. Patients unable to attend church services may listen in on bedside radios and receive visits from members of the CC Spiritual Ministry Department.

Combined Federal Campaign At NIH Goes Over the Top

For the first time since the annual Combined Federal Campaign opened here in September 1964, the drive has "gone over the top."

NIH employees have contributed the sum of \$195,829.32—103.1 percent of the assigned quota.

Dr. Theodore Cooper, Director of the National Heart Institute, was chairman of the successful CFC campaign.

Unit	Amount Pledged	Percent of Goal
FIC	\$1,778.00	191.0
NIEHS	1,129.00	165.1
NIGMS	5,425.00	136.6
NICHD	7,906.50	135.1
NLM	10,024.00	123.8
BEMT	18,791.83	118.2
DRG	11,319.10	113.9
NIDR	6,915.98	108.3
OD/ADA	31,108.05	104.8
NIAMD	15,522.23	104.3
DRS	8,489.05	99.1
NIAID	8,492.85	98.9
NHI	10,975.88	97.1
DBS	4,426.75	96.3
CC	14,044.60	92.7
DCRT	5,122.00	92.0
NCI	23,712.90	89.0
NINDS	9,578.10	80.9
NEI	1,067.50	75.9
NIH	\$195,829.32	103.1



Scarlet Curtis, a secretary in the Contracts Section, BEMT, presents a check for the NIH Patient Welfare Fund to James B. Davis, OAS Director, and originator of the "Davis Plan"—instead of exchanging Christmas cards donate that money to the emergency fund to help patients and their families.

Donations to Blood Bank Fail to Meet CC Needs Despite New Program

Some donors to the Clinical Center Blood Bank may be unaware that they are eligible for reimbursement under a new program started in June 1969, according to Dr. Paul J. Schmidt, Blood Bank chief.

Despite the cash incentive, employee donations often are still inadequate to meet the critical needs of CC patients, Dr. Schmidt revealed.

He noted that employees are not aware of the program and that there is still some reluctance to donate initially to qualify for paid donations.

Must Donate 2 Pints

With Christmas bills coming due in January, Dr. Schmidt reminds employees that the Blood Bank might be a good source of extra revenue.

Under the reimbursable program, any NIH employee who voluntarily donates at least 2 pints of blood in a 12-month period at the CC Blood Bank qualifies for the Blood Bank's "pay priority list."

For each pint donated thereafter—but not exceeding 3 pints within the 12-month period—the Blood Bank is authorized to pay that employee \$25.

The 12-month period begins on the date the first voluntary unit was donated. Thus, donors may receive up to \$75 each year.

Program approval was granted subject to assessment of its effectiveness within one year. Thus far, although blood donations have generally increased, not enough of the increase can be attributed to the cash payment plan, Dr. Schmidt said.

However, no changes in the program are contemplated at present.

To get started in the program, or to determine their eligibility, employees should call the Blood Bank, Ext. 64508.

Deadline on Abstracts For FASEB Meeting Is Thursday, December 18

The deadline for abstracts for the 54th annual meeting of the Federation of American Societies for Experimental Biology is Thursday, Dec. 18.

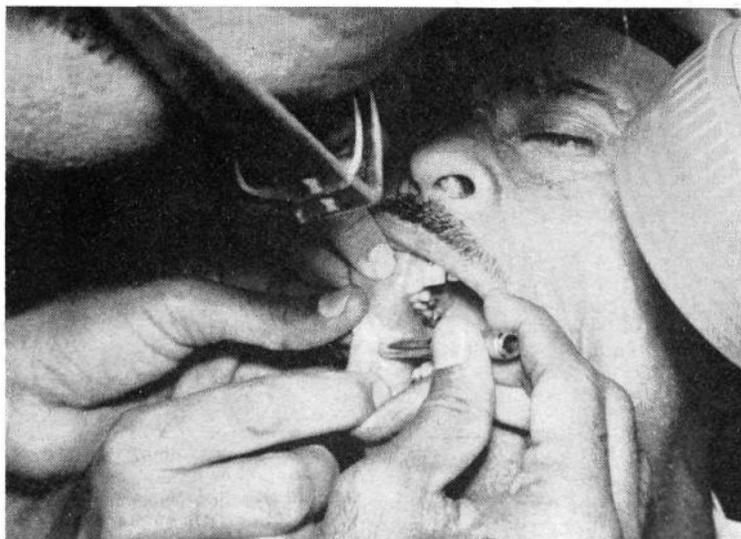
Abstracts received after this date will not be accepted.

The Federation sessions and exhibits are scheduled April 13-17, 1970—with registration opening April 12—in Atlantic City, N. J.

The advance registration deadline is March 13. The program and official badge will be mailed to advance registrants prior to the meeting.

For information and abstracts, advance registration and hotel res-

Dental Seminar on Smoking and Chewing Habits in India Reveals Oral Cancer Data



A doctor takes a punch biopsy of a suspicious oral leukoplakic lesion from a patient in Gujarat, India, where villagers smoke strong native cigarettes (bidi) or clay pipes (hookli).

On the eastern seacoast of India, in Andhra Pradesh—cigars are smoked in reverse—the lighted end is in the mouth to prevent high winds from blowing them out.

And in this district 10 cases of oral cancer were discovered—nine of them among reverse smokers.

A seminar on smoking and chewing habits that may lead to oral cancer, the most common type of malignancy in India, was recently held at the National Institute of Dental Research.

Over 59,000 Villagers Studied

It was conducted by Dr. Fali S. Mehta, head of the Basic Dental Research Unit of the Tata Institute of Fundamental Research in Bombay.

With Dr. Jens J. Pindborg, chief of Oral Pathology at the Royal Dental College, Copenhagen, Dr. Mehta is conducting an epidemiological study of over 59,000 villagers. The study is sponsored by NIDR. Dr. James E. Hamner III is serving as project officer.

The subjects were drawn at random from towns of 500 to 3,000 population. All members of each selected family over age 15 have been examined, and those with mouth lesions had them photographed, biopsied, and classified.

These cases will be followed for 10 years to learn which will eventually become malignant, and what the percentage of conversion to cancer will be.

Since life expectancy after infancy in India is 45 years, the increase in cancer which comes with increasing age will be minimized.

Because of known incidences of

ervation forms, write to: Office of Scientific Meetings, Federation of American Societies for Experimental Biology, 9650 Rockville Pike, Bethesda, Md. 20014.

cancer coupled with local differences in the use of tobacco, five districts from four states were surveyed, including Andhra Pradesh.

In the state of Gujarat the prevalent custom is to smoke tobacco either in clay pipes (hookli) or as strong native cigarettes (bidi).

In Kerala, a quid of areca nut, betel leaves, lime and tobacco is stored in the cheek.

Two areas were canvassed in the state of Bihar: Singhbhum, where tobacco quids are rested on the tongue, and Darbhanga, where tobacco and lime quids are stored behind the lower lip. Some villagers smoke as well as chew.

The chief oral conditions found were: homogeneous and speckled leukoplakia (a white patch of at least 5 mm diameter); pre-leukoplakia (grayish patches with indistinct borders); leukokeratosis nicotina palati (white nubby patches on the hard palate usually associated with reverse smoking),



A Gujarati shepherd enjoys smoking a "hookli," a short stemmed clay pipe. Gujarat and Andhra Pradesh have the highest prevalence of leukoplakia.

and oral submucous fibrosis (any part of the mouth grows fibrous, blanched and stiff in time—usually associated with eating chili peppers).

Also, pipe smoker's white patches where the pipe stem habitually rests in the corner of the mouth or between the lips; and finally, papillary atrophy of the tongue (bare red patches left by strenuous scraping with metal strips from a custom of mouth cleaning).

Disease Highest in 2 States

Kerala had twelve cases attributed to the associated tendency of submucous fibrosis to convert to cancer, while Gujarat had three cases. None were found in the other districts.

Leukoplakia varied in prevalence from 0.2 percent to 4.9 percent, and was lowest in Singhbhum where there is least smoking, and highest in Gujarat and Andhra Pradesh where there is most.

Submucous fibrosis, less frequent among these villages than it is in urban areas, is much rarer in northern than southern India.

Dr. Mehta had expected that localized atrophy of the tongue from daily scraping might account for some of the tongue cancers in Gujarat, but the bare spots occurred in only 0.1 percent of those villagers.

It was higher in Kerala where tongue cancer is uncommon and lowest of all in Bihar.

Leukoplakia was most common (8.7 percent) among reverse smokers, high among pipe smokers, somewhat less common among bidi smokers and people who both smoke and chew.

Less Common in Chewers

It is far less common among chewers and practically unknown among non-users of tobacco. It rarely occurs on the floor of the mouth and generally appears wherever tobacco smoke is habitually directed.

Tongue cancer was highest in the Singhbhum district of Bihar where villagers usually place tobacco quids on the tongue.

The follow-up investigation of these rural villagers should show how apparently harmless spots change into malignancies, and provide clues to causes.

Dr. Mehta, an international authority in this field, has been a research fellow at Tufts University, and worked closely with the World Health Organization on precancerous oral conditions.

Dr. Cummings Receives Award

Dr. Martin M. Cummings, Director, National Library of Medicine, was one of four Duke School of Medicine alumni who received the first Distinguished Alumni Award presented by the Duke University Medical Center. Dr. Cummings is a 1944 graduate of the Duke School of Medicine.

Dr. Goodman Heads New Alliance for Engineering In Medicine and Biology

Dr. Lester Goodman, Division of Research Services, was elected president of the new Alliance for Engineering in Medicine and Biology at its first administrative meeting held recently in New York City.

Dr. Goodman is chief of the Biomedical Engineering and Instrumentation Branch.

Members of the Alliance now include nine national societies for physical sciences and engineering and eight national organizations for medicine and life sciences. Membership is expected to grow rapidly in the near future.

Present AEMB associations are: Aerospace Medical Association, American Academy of Orthopedic Surgeons, American Association of Physicists in Medicine, American College of Physicians, American College of Surgeons, and American Institute for Ultrasonics in Medicine.

Other Affiliates Listed

Also, American Institute of Biological Sciences, American Institute of Chemical Engineers, American Society for Engineering Education, American Society of Heating, Refrigerating, and Air-Conditioning Engineers, Inc., and American Society for Testing and Materials.

Also, American Society of Internal Medicine, American Society of Mechanical Engineers, Associa-

The 'Journal of Medical Education' Devotes Issue To Role of University

The *Journal of Medical Education* devoted its entire September 1969 issue to the Council of Academic Societies' conference proceedings on "The Role of the University in Graduate Medical Education."

The Division of Physician Manpower, Bureau of Health Professions Education and Manpower Training, and the National Fund for Medical Education were the principal supporters of the conference covered in this "special issue."

Topics discussed included: the role of the basic science departments and of the specialty boards, fragmented jurisdiction over basic certification requirements, the value of internships and residencies, and methods of financing.

The Council of Academic Societies was established by the Association of American Medical Colleges in 1967.

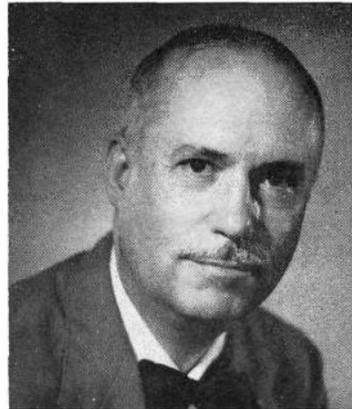
tion for the Advancement of Medical Instrumentation, Institute of Electrical and Electronics Engineers, Inc., Instrument Society of America, and Neuroelectric Society.

The goal of the alliance is to improve health care through advanced technology in life science research and clinical practice.

The AEMB has assumed responsibilities of the former Joint Committee on Engineering in Medicine and Biology, including sponsorship of the annual conference on Engineering in Medicine and Biology.

Dr. Gerald G. Vurek, National Heart Institute, is chairman of the 23rd annual conference scheduled Nov. 15-19, 1970, in Washington, D. C.

Dr. Shear, Researcher in Cancer Studies, Retires



On his retirement Dr. Shear will act as consultant in cancer research, and will also serve as associate director for a communications program at the Smithsonian Institution.

Dr. Murray J. Shear, a biochemist who was working on cancer studies in the PHS for half a dozen years before the National Cancer Institute was created, recently retired from NCI.

He was special advisor to the NCI Director and had completed 38 years of Federal service.

Conducted Early Studies

Prior to the establishment of NCI, two independent PHS groups were conducting cancer studies. One was in the Hygienic Laboratory, predecessor of NIH, in Washington, and the other was the office of Cancer Investigation at Harvard University.

Dr. Shear spent 7 years—from 1931 to 1938—with the Harvard group. From there he went to NCI as a senior biochemist, and later, was named principal biochemist.

In 1951 he was appointed chief of the Laboratory of Chemical Pharmacology. In 1963 he was named special adviser in the office of the director of Intramural Research, and then held the same post in the office of the Director, NCI.

Was Pioneer in Treatment

Dr. Shear pioneered in the development of chemotherapy for treatment of cancer, and in establishing correlations between chemical structure of carcinogens and their ability to cause cancer.

He also did extensive work with "Shears polysaccharide" and other macromolecules.

He is the author or coauthor of about 130 scientific papers. Dr. Shear is a past president of the American Association for Cancer Research, and also served as secretary general of the International Union Against Cancer.

He traveled widely for that organization and cooperated and exchanged ideas with leading cancer

Two NIH Films Selected For International Exhibit

Two NIH films were selected by the United States Information Agency and shown as HEW entries at a recent film festival in Padua, Italy.

The films were "Gift of Life," produced by the National Institute of Arthritis and Metabolic Diseases, and "Spinal Cord Angiography," produced by the National Institute of Neurological Diseases and Stroke.

Shown in November

They were shown in November at the 14th International Exhibition of Scientific and Educational Films.

"Gift of Life" tells the story of "Jeff Winston" who is stricken with kidney disease, and subsequently, the permanent loss of kidney function. He is treated with an artificial kidney and is able to lead a normal, active and useful life.

At the film's conclusion, Dr. Benjamin T. Burton, NIAMD associate director for Program and chief of the Artificial Kidney Program, discussed the Institute's research on artificial kidneys.

The NINDS entry, "Spinal Cord Angiography," describes the clinical and experimental angiographic studies of the spinal cord. It was written and narrated by Dr. Giovanni DiChiro, chief of the Neuro-radiology Section.

System of Rotating Lab Chief Used at NIAMD

A system of rotating the position of laboratory chief is underway in the Laboratory of Molecular Biology, National Institute of Arthritis and Metabolic Diseases.

As far as can be determined it is the first time a rotation system has been used at NIH.

Dr. Gary Felsenfeld, chief of the Laboratory's Section on Physical Chemistry, has been named by Dr. G. Donald Whedon, NIAMD Director, to serve as acting chief for the first year.

Others named to serve in that position for a one-year period are Drs. Harvey Itano, David R. Davies, Todd Miles, Martin Gellert, and Robert Martin.

investigators from all over the world. He was also chairman of the Union's first Cancer Chemotherapy Committee.

Dr. Shear received his B.S. degree from the City College of New York, and his M.A. and Ph.D. degrees from Columbia University.

At a recent farewell party attended by about 200 of his friends, Dr. Shear was presented with two books of letters and telegrams from scientists around the world, all wishing him well in the future.



Dr. Goodman



Progress in nursing care of Clinical Center patients with systemic lupus erythematosus—a disease of connective tissue—was discussed at a recent Nursing Clinical Conference. Members of the Arthritis and Metabolic Diseases Nursing Service who participated were (l to r): Margaret Wilt, Florence Sato, Josephine O'Connor, and Helen Murphy.

DYER LECTURE

(Continued from Page 1)

School of Medicine where he had served as professor of Pathology for 12 years.

Earlier, he held a 6-year fellowship at Centre National Recherche Scientifique Hospital Brossais, in Paris, France, and a 2-year fellowship in the Department of Microbiology at Columbia University's School of Medicine.

Awarded Gold Medal

In 1962, Dr. Benacerraf was awarded a gold medal by the International Society for Research on Reticuloendothelial System.

He is an advisor to the World Health Organization on immunology, an associate editor of numerous professional journals, and a frequent guest lecturer and participant in seminars.

The Dyer Lecture was established in September 1950 to honor Dr. Rolla Eugene Dyer, a former NIH Director.

Each year the Dyer Lecturer is selected by the NIH Director—with the advice of his senior scientific staff—from among scientists who have made important contributions in either medical or biological research, particularly in the field of infectious diseases.

Previous Dyer Lecturers have

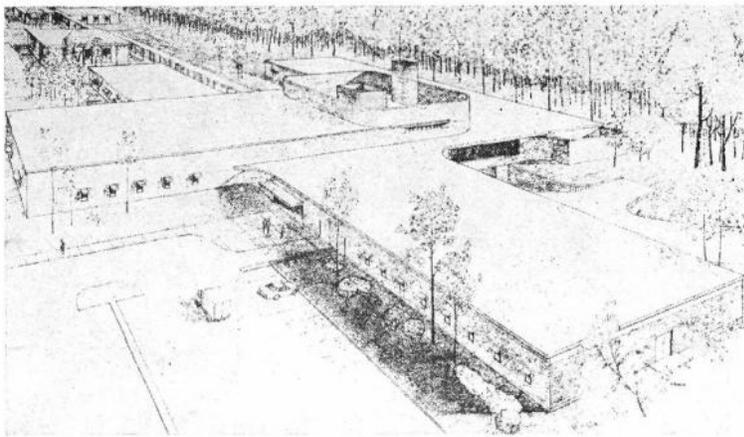


Dr. Benacerraf, a world authority on immunological research, and an advisor to WHO, will talk on "Cell Selection and Cooperation in the Immune Response."

been Dr. George W. Beadle, Sir F. MacFarlane Burnet, Dr. Rene J. Dubos, Dr. John Franklin Enders, Dr. Louis Pillemer, Dr. Karl F. Meyer, Dr. Richard E. Shope, and Dr. Walsh McDermott.

Also, Dr. Albert H. Coons, Dr. George MacDonald, Dr. Rollin D. Hotchkiss, Dr. Salvador E. Luria, Dr. Harry Rubin, Dr. Alexander D. Langmuir, Dr. Karl Habel, Dr. Robert A. Good, and Dr. Sol Spiegelman.

Three of the Dyer Lecturers—Sir F. MacFarlane Burnet, Dr. Enders, and Dr. Luria—are Nobel Prize Laureates.



Construction on the expanded research facilities of the National Institute of Environmental Health Sciences in Research Triangle Park, N. C., is expected to be completed by May 1971. The three buildings will house general laboratories, specially designed aerotoxicology laboratories and animal quarters. Dr. Paul Kotin, NIEHS Director, said the buildings will add 60,000 square feet of laboratory space.

Study Reveals One-Third of Infants With Heart Defect Heal in Infancy, Childhood

By Anne Tisiker

Nearly one-third of the infants born with ventricular septal defects—abnormal openings in the muscular wall that normally divides the heart into two pumping chambers—heal spontaneously during infancy or early childhood.

This is just one of several findings made by scientists from a large-scale study of inborn heart disease, and reported at the American Heart Association meetings in Dallas, Tex.

This study, by Drs. Sheila Mitchell, National Heart Institute, Sheldon B. Korones, University of Tennessee, and Heinz W. Berendes, National Institute of Neurological Diseases and Stroke, is based on data from the NINDS Perinatal Study.

The scientists' study yielded information on the incidence of inborn heart disease by specific defect, the association of heart defects with defects in other parts of the body, and the identification of some groups particularly prone to these inborn heart defects.

About 30,000 to 50,000 of the three million babies born in the U.S. each year are born with some type of heart defect. In a study of more than 54,000 births, 457 patients were found to have inborn heart disease—that is, a structural abnormality of the heart or the large vessels which branch from the heart.

Defective Septum Common

The most common defects found among the patients with inborn heart lesions were defects of the wall (septum) between the heart's two main pumping chambers.

These ventricular septal defects were found in 106 of the 274 children who survived beyond their first birthday.

The defect, according to Dr. Mitchell, was found to have closed spontaneously in 38 of the 106 pa-

tients although this healing was generally found to occur between the ages of 6 months and 3 years.

The data suggest that 30 percent of such lesions close spontaneously during infancy or early childhood.

Autopsy was performed in nearly all the children who died, and defects in every part of the body were recorded for clues to the cause, development, and relationships between heart defects and other defects.

Other Defects Found

Although no groups of defects were generally found to occur together, investigators did find that 10 of 18 patients with preductal narrowing of the aorta had malformations in other parts of the body.

Only two of the 15 patients with perforations of the mitral and aortic valves had defects in other parts of the body.

Even more striking was the finding that six of the 10 patients with preductal narrowing of the aorta who had defects in other parts of the body had kidney lesions, while in the entire group of 457 heart patients only 17 had associated kidney lesions.

The medical significance of this, according to the investigators, is not yet clear.

The study also showed a greater than expected number of septal defects among children with breakage and rearrangement of chromosomes, and a preponderance of diabetic children with defects in the aorta and pulmonary artery (the great vessels).

Three in Dental Institute Promoted to New Posts

Several high level staff promotions and organizational changes at the National Institute of Dental Research have been announced recently by Dr. Seymour J. Kreshover, NIDR Director.

Dr. Clair L. Gardner, former associate director for Special Programs, has been appointed to the newly created position of deputy director of the Institute. In addition, Dr. Gardner he will continue to direct the development of the dental research centers in universities and other institutions.



Dr. Marie Nylen was appointed chief of the Biological Structure Laboratory, formerly the Laboratory of Histology and Pathology.

Its new name more adequately reflects current programs and emphasizes research which includes biophysical studies of developing and mature calcified tissues; electron microscopic studies of structure and function involving microorganisms and cellular products, and fine structural studies of the main sensory nucleus of the trigeminal nerve.

Dr. Samuel Kakehashi was named chief of the Dental Services Branch.



Dr. Kakehashi



Dr. Nylen

The branch provides for CC patients' dental care and support for intramural clinical programs.

Dr. Byrne on Veterinary Council

Dr. Robert J. Byrne, National Institute of Allergy and Infectious Diseases, has been elected to a 5-year term on the American Veterinary Medical Association's Council on Biological and Therapeutic Agents.

Dr. Byrne, who is assistant scientific director for Collaborative Research, also heads NIAID's Research Reference Reagents Branch.

Of the 34 children with chromosome abnormalities and inborn heart disease, 24 had septal defects and 10 of the 20 diabetic children had great vessel abnormalities.

This finding, too, was statistically significant but the rationale has yet to be discovered.

Tufts Scientists Study Adverse Drug Reactions Under NIGMS Contract

Scientists at Tufts University, supported by the National Institute of General Medical Sciences, have developed a computerized drug surveillance program which rapidly spots—within a few cases—serious reactions occurring from drugs used by more than 4,000 patients in five Boston hospitals.

System Reveals Patterns

The system has revealed significant patterns in the way different individuals handle drugs, and also included new evidence linking sex, blood type, and genetic factors with widely varying individual drug responses.

The medical community's enthusiasm over the Tufts' studies was reflected by a recent editorial in the *Journal of the American Medical Association*. The editorial recommended that the Boston system serve as the model for a nationwide program of computerized drug surveillance.

The scientists—headed by Drs. Hershel Jick and Dennis Slone—believe this system would help prevent episodes such as those occur-



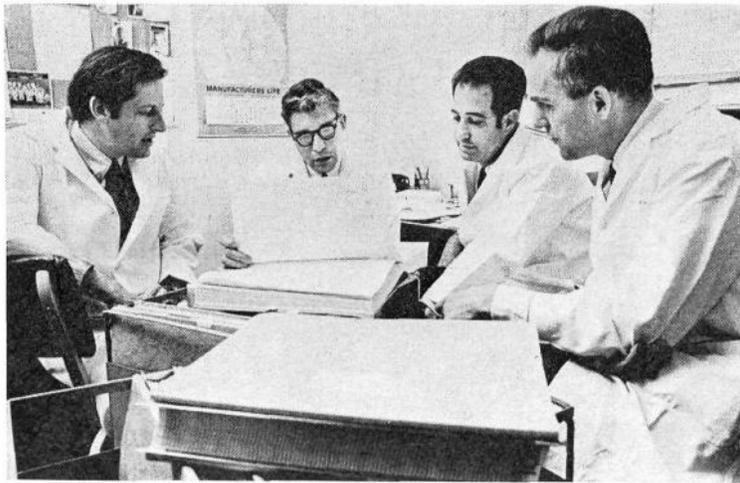
A team of senior nurse surveillance monitors checks incoming data. This procedure also includes coding of diagnoses. The system enables scientists to compile comprehensive drug "profiles" on patients' reactions.

ring with thalidomide and chloramphenicol in the early sixties.

Then, many lives were lost and many babies were permanently deformed before specific adverse effects were identified and associated with the offending drugs.

Observation of patients by specially-trained nurse monitors and computer printouts of accumulated drug data have enabled the Tufts investigators to compile comprehensive drug "profiles" which explain how and why patients react differently to the same drug or drugs taken in various combinations.

By using this method to find the causes of gastrointestinal bleeding due to drugs, the Tufts pharmacologists showed that ethacrynic acid—a potent, widely-used diuretic—



Tufts University scientists discuss the ultimate benefits of the drug surveillance program which may result in a computer controlled national system that would alert physicians to patients prone to unusual drug reactions. The researchers are (l to r) Drs. Samuel Shapiro, Hershel Jick, Dennis Slone, and George P. Lewis.

may cause such bleeding when administered intravenously.

Using a similar method, they showed that women with Type A blood who take birth control pills appear to run much greater risk of developing blood clots than women with Type O blood.

They also reported that hypnotic drugs such as pentobarbital and secobarbital produce more side effects in lighter-weight female patients than in women who weigh more.

The data also showed that older women taking the anticoagulant drug heparin are more likely to bleed internally than men or younger women taking that drug.

Because all data are analyzed by computer, retrospective searches can be done rapidly.

The ultimate benefit from the Tufts program could be a computer-controlled national system that would alert physicians to patients who are prone to severe or even fatal reactions from certain drugs.

In addition to Drs. Jick and Slone, other scientists on the project are Drs. George P. Lewis and Samuel Shapiro, and Olli S. Miettinen of the Harvard School of Public Health.

Infectious Diseases Section Wins An Award for Measles Exhibit

The Section on Infectious Diseases, National Institute of Neurological Diseases and Stroke, recently received a gold award for its exhibit showing measles as the cause of the fatal childhood disease Subacute Sclerosing Panencephalitis (SSPE).

The award, presented by the American Academy of Pediatrics, was given to the section for "Originality in Concept and Presentation." It was shared by NINDS co-investigators at the University of Tennessee.

Dr. John L. Sever heads the section.

Dr. Held Named Chief Of Lab Aids Branch

Dr. Joe R. Held was recently appointed chief of the Laboratory Aids Branch, Division of Research Services. The appointment was announced by Dr. William B. DeWitt, Director of DRS.

During the past 2 years Dr. Held has been on assignment from the National Communicable Disease Center to the Pan American Zoonoses Center in Buenos Aires, Argentina.

Dr. Held will administer a program of research services that will include production of genetically characterized rodents and rabbits;



During the past 2 years Dr. Held has been with the Pan American Zoonoses Center in Buenos Aires, Argentina.

quarantine and conditioning of dogs, cats, and primates, and administration of the Animal Center at Poolesville, Md.

Dr. Held joined the PHS Commissioned Corps in 1955. He first served as Epidemic Intelligence Service officer with the Communicable Disease Center, Atlanta, Ga.

Prior to his assignment in Ar-

DR. BERLINER

(Continued from Page 1)

formation and to transmit to his students the open-minded skepticism that will determine the adequacy of their future growth."

Dr. Berliner warned against what he called "the tendency in medical education to abandon rigor and firm basic physiologic understanding in favor of the once-overlightly in science and a heavy layer of community dynamics.

Trends Portend Loss

"Not only do these trends portend the loss of a generation of students as possible contributors to the science from which medicine advances, but they threaten to drive from the schools those most likely to influence favorably the next generation.

"At the same time," he added, "progressive constriction of the opportunities to contribute to the science of medicine tends to force from the scene those most recently trained and to discourage many others from undertaking careers in academic medicine.

"Above all," he noted, "we have an enormous job of education to do."

Touching on the need for much more understanding of the relations between medical care, education and research, Dr. Berliner stressed, "The education of which I speak is not with the content of medicine but with the *relevance* of medical science to medical care.

Changes Are Enormous

"It seems inescapable that those who feel that science is not relevant to present day medical problems cannot really be aware of the enormous changes that have occurred in the last 30-40 years and how different it was in the not so distant bad old days.

"And it behooves us to make that clear to them—and to the general public as well. Too much is taken for granted!

"We should have the equivalent of a brief commercial before each therapeutic measure, of each dose of vaccine, each effective drug.

"The 'commercial' should read: 'This is made possible by the research of Whozis and so and so; we trust you will find it effective and remember what research has done for you when you have occasion to influence the expenditure of your tax money.'"

gentina he was a comparative parasitologist with the National Institute of Allergy and Infectious Diseases, Laboratory of Parasite Chemotherapy, Chamblee, Ga.

Dr. Held received his B.S. and D.V.M. degrees from the University of California at Davis, and his M.P.H. degree from Tulane University.

Diabetic Studies Among Pima Indians in Arizona Reviewed by Dr. Bennett

Diabetes studies among the Pima Indians of Arizona were reviewed by Dr. Peter H. Bennett at a recent National Institute of Arthritis and Metabolic Diseases Clinical Conference. Dr. Bennett is associate chief of NIAMD's Clinical Field Studies Unit in Phoenix, Ariz.

One of the newest studies suggested that glucose levels (determined by the glucose tolerance test given in diagnosing diabetes) can be used to identify two subpopulations.

Dr. Bennett explained that the Indian population over 25 years of age can be divided into those with high and those with normal glucose levels in each decade.

Glucose Levels Significant

He emphasized that these findings indicated glucose levels alone can provide a basis for identifying and further studying subjects with diabetes mellitus in population samples.

Dr. Bennett also discussed other Unit studies which refuted the theory that women who had many pregnancies have a higher prevalence of diabetes. He suggested that obesity alone cannot account for the high prevalence of diabetes among the Pimas.

He spoke on another theory to be tested—can thickened capillary membranes or other arterial abnormalities predict diabetes? Dr. Bennett pointed out that more data will be needed before blood vessel complications are clarified.

The Clinical Field Studies Unit, under the direction of Dr. Thomas A. Burch, conducts its research studies at the Indian Health Service Hospital on the Pima Indian Reservation at Sacaton, 40 miles south of Phoenix.

Stroke Patients Improve After Therapy With Low Molecular Weight Dextran

Continuous intravenous injections of low molecular weight dextran improved survival and lessened neurologic impairment in a group of stroke patients. Investigators at the Wayne State University Center for Cerebrovascular Research report that these patients improved more than a comparable group of acute stroke patients who were not treated with dextran.

The research center is supported by a grant from the National Institute of Neurological Diseases and Stroke.

In treating stroke it is important to improve blood circulation in the affected area of the brain and to prevent clotting. One possible method of improving blood flow is to reduce its viscosity.

There has been considerable evidence that the intravenous use of low molecular weight dextran (dextran 40) reduces the blood's tendency to clot and its viscosity within the small vessels of the brain.

(Dextran 40 is a polysaccharide formed by fermenting a sugar solution with bacteria and then reducing the product in molecular weight by controlled acid hydrolysis.)

Latest Participants in NIH Visiting Scientists Program Listed Here

10/31—Dr. Leandro Medrano, Spain, Laboratory of Molecular Biology. Sponsor: Dr. Robert Martin, NIAMD, Bldg. 2, Rm. 208.

11/3—Dr. Sylvia Friedberg, South Africa, Laboratory of Biochemistry and Metabolism. Sponsor: Dr. Yale J. Topper, NIAMD, Bldg. 10, Rm. 9B18.

11/20—Dr. David J. Jollow, Australia, Laboratory of Chemical Pharmacology. Sponsor: Dr. James R. Gillette, NHI, Bldg. 10, Rm. 8N118.

In the Wayne State study the investigators sought to use dextran 40 in a controlled clinical trial to determine whether its use could improve the condition of stroke patients.

100 Patients Selected

One hundred patients with acute stroke caused by a blockage of brain vessels by a floating blood clot (thromboembolism) were selected. Each patient had suffered moderate to severe neurologic impairment and had not improved after one to 3 days following onset of the stroke.

These patients were classified as victims of a progressive rather than a completed stroke. Persons suffering severe brain hemorrhages, heart, and/or kidney failure were excluded from the study.

The hundred patients were randomly divided into two groups: one, in which each patient received continuous intravenous treatment with dextran 40 for 3 days, and one in which patients received dextrose and saline injections during the same period.

Both groups were given comparable medical treatment and nursing care, but vasodilator and anticoagulant drugs were not used during the 10-day trial period.

At the beginning and end of the trial, each patient was rated according to his neurologic condition on a scale of from 1 to 50 points. (Normal mental activity and speech: 12 points; normal sensation: 6 points; absence of seizures: 5 points; etc.).

At the end of the trial, of the 46 patients who had been treated with dextran 40, 38 had improved, 3 were unchanged, 3 had worsened, and 2 had died. Of the control group of 54 patients, 31 improved, 8 were unchanged, 7 worsened, and 8 died.

Compare Neurologic Scores

Comparing the before-and-after neurologic scores for each patient, the investigators found that the dextran-treated group had improved significantly more in mental function, reflexes, and total neurologic status than the untreated group. Thus, both the survival rate and quality of survival was better in the group treated with dextran 40.

Because there were no complications from the treatment, the investigators suggest that longer therapy might result in greater degrees of improvement. They believe that dextran 40's beneficial effect may be due to its reduction of blood viscosity and prevention

Medical College Names Dr. Stone as President

Dr. Frederick L. Stone, Director of the National Institute of General Medical Sciences, has been appointed president of New York Medical College—Flower and Fifth Avenue Hospitals. His appointment was announced by Jackson E. Spears, chairman of the Board of Trustees.

Dr. Stone, who came to NIH in 1948, has been NIGMS Director since 1964. He has promoted national research programs in basic sciences and clinical sciences, and also organized programs which supported the training of young medical scientists.

In 1962 Dr. Stone organized a new division to administer grants



Dr. Stone, NIGMS Director, has organized programs which support the training of young medical scientists.

for the construction of research buildings, computer centers, and other facilities for medical schools and medical complexes.

In 1964 he received the DHEW Superior Service Award, and, in 1966, the Special Citation of the Secretary of HEW.

Dr. Stone received a B.S. degree from Middlebury College, and his M.S. and Ph.D. degrees from the University of Rochester.

He is a member of a number of professional and scientific organizations, including the American Association for the Advancement of Science, and the Association of American Medical Colleges. He is also an affiliate of the Royal Society of Medicine.

The college, which Dr. Stone will head early next year, plans to relocate—over a 5-year period—to Westchester, N.Y., and become part of a new medical center.

of blood elements from clotting.

Drs. John Gilroy, Marion I. Barnhard, and John S. Meyer, all of Wayne State University, reported their findings in the *Journal of the American Medical Association*.



Lillian Glesne and Roy Smaus recently retired from NIAID's Rocky Mountain Laboratory in Hamilton, Mont. Miss Glesne joined RML in 1946 after 22 years as a hospital medical technologist. She plans to travel and continue her hobbies as a naturalist and photographer. Mr. Smaus has served as a guard in the Lab since 1941. He plans to spend his retirement hunting and fishing in the Hamilton area.



Equal Employment Opportunity Conferees Meet Here; Review Progress, Problems



Dr. Robert Q. Marston, NIH Director, opens the EEO Conference, one purpose of which was to review progress made in equal employment opportunity at NIH since the Airlie House conference last July.

Directors and other NIH officials, together with blacks from the NIH employee community, held an all-day Equal Employment Opportunity Conference on Nov. 26. This conference, held here on the NIH reservation, was a follow-up to one at Airlie House in Virginia last July.

Dr. Robert Q. Marston, NIH Director, presided. He said, "We left Airlie House with a commitment. We are here to assess the results, clarify issues, understand further problems, and recommend solutions."

At the opening meeting, three NIH officials and a spokesman for blacks who attended both meetings presented views on progress since July.

Dr. John F. Sherman, NIH Deputy Director, gave highlights of Directors' reports. He said he was "encouraged by the general responsiveness and caliber of effort that the Directors' reports indicate." He added that "some reports seem to indicate difficulty in deciding how to approach the problem."

Dr. Sherman said it is important that NIH operate on two fronts simultaneously in the EEO Program. He noted there is realistic impatience for specific results—hires, promotions and reassignments.

Program Needs Cited

There is also a need, he said, for re-educational programs, job skill training programs, and programs to identify individuals with potential to take on more responsibility.

Dr. Sherman said it appears more EEO educational efforts and more black involvement in developing plans and implementing action at Bureau, Institute, and Division levels are needed.

He reported that despite severe employment restriction since the July seminar, 35 permanent minority employees were hired, including the appointment of two black associate directors, 10 nurses, and one staff fellow.

Associate Director for Administration, Richard L. Seggel, report-

ed on progress in meeting the NIH Affirmative Action Plan. He indicated some dates set for initiation of certain activities had been met, but results of these activities could not be measured yet.

Mr. Seggel also noted that 240 NIH supervisors will have been trained by year's end, with a strong emphasis on EEO.

EEO Efforts Noted

Personnel Director John M. Sangster reported on 16 EEO efforts. He said an Office of Personnel task force had visited major Montgomery County employers to explore collaborative efforts on housing and transportation.

Mr. Sangster mentioned a proposed DCRT training program to teach computer programming, and NIGMS visits to predominately black institutions for program development and recruitment.

The NIH Management Intern Program has one black intern onboard, with another arriving soon, and has made an offer to a third, he reported.

It also appears that two to three Associates (young intramural professionals) in the incoming group are black, Mr. Sangster reported, and that 13 percent of all NIH grants associates have been minority members.

He said that 140 NIH employees will be enrolled in Adult Basic Education classes at NIH. The Montgomery County School system is providing the instruction.

Mr. Sangster noted that an OPM special study to improve career advancement for lower graded personnel at NIH had identified 850 NIH positions that "top out" at GS-4 or below.

James R. Gregg, of the Office of Financial Management, presented

a report from blacks who had attended the Airlie House conference and who were also present at this one.

"It is our consensus that there has been very little progress in ameliorating the conditions under which black employees work, are hired, are trained or promoted in the last 4 months," he said.

"With a few exceptions, the responses have tended to consist of continued effort to improve the NIH image among black employees—a kind of cosmetic approach—rather than the institution of any meaningful changes in the system which has heretofore promoted and encouraged discrimination.

Management Criticized

"In general, management response has consisted of the establishment of more powerless committees to study 'the problem' and to provide additional recommendations," Mr. Gregg continued.

"In addition, a few token appointments and promotions have been made (or offered) which we suspect were aimed more at silencing articulate spokesmen than at providing for substantive change."

As the day went on, and Directors of the NIH components presented individual reports of EEO progress at sub-group meetings, Mr. Gregg noted that he felt more reassured.

The Directors made their reports in four sub-group meetings. Reporters who summarized the discussions for the full group were Phyllis Campbell, NCI; Evelyn



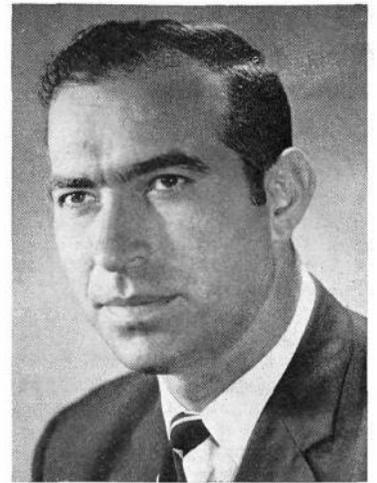
Reporters from sub-groups gather with Dr. Marston (center) to summarize their groups' discussions. They are from left: William Vines, NLM; Gladys Handy, BEMT; Evelyn Crawford, management intern, OD, and Phyllis Campbell, NCI.

Crawford, a management intern; Gladys Handy, BEMT, and William Vines, NLM.

Miss Crawford said, "The progress was very nice and was well reported, but we hit on the sore thumb that we don't have communications."

She suggested that this lack of communications between management and blacks at NIH had caused the contrast between the reports with which the conference began.

During the afternoon, Dr. Colvin



Dr. George J. Galasso heads the Antiviral Substances Program in the Vaccine Development Branch, NIAID. He is a former NIH grants associate, and has taught at the University of North Carolina and University of Virginia. He will coordinate NIAID's contract program on antiviral substances.

Gibson, NIH EEO Officer, talked about the EEO Council and the mechanism for handling discrimination complaints.

Mr. Sangster also introduced a discussion paper on what "Think Black" can mean in practice at NIH. The sub-groups reconvened to discuss the subject and the continued evolution of EEO at NIH.

Reporters at the final full meeting were James G. Hill, NEI; Miss Crawford; Mrs. Handy, and Dr. Theodore Cooper, NHI.

Recommendations were that no quota system for black employment be set up at NIH, although a range of percentages for proportional representation could be "guidelines towards progress."

Advisory Group Suggested

Both Mrs. Handy and Dr. Cooper reported on communications difficulties. Mrs. Handy presented suggestions that a black advisory group to the NIH Director be set up as supplementary to the EEO Council, and that similar groups advise Bureau, Institute, and Division Directors.

Dr. Cooper noted there had been much discussion and difference of opinion in his sub-group concerning opportunities for employees, white and black, to select their own representatives to "advisory committees, work groups, seminars, or councils."

"This is not to say that members of groups such as this need be elected but that there should be some mechanism to ensure that all sectors of the community are being adequately represented," Dr. Cooper said.

In closing the meeting, Dr. Marston asked the conference planning committee to review the day's proceedings and make recommendations to him.