NIH Assists Peru In Development of Medical Research

At the request of the U. S. Agency for International Development, Dr. Dale R. Lindsay, Chief of the Division of Research Grants, held discussions with Peruvian officials on plans for a Peruvian-financed program of medical research grants during a South American trip last month.

Dr. Lindsay visited Peru to consult with Dr. Fernando Cabisnes, Director General of the Fund for Health and Social Welfare of Peru, and other Fund officials and Peruvian research scientists.

Guidelines for the organization of a granting program were established at the meetings, and plans were formulated for Dr. Teodoro Ramos, Chief of the Office of Research Grants and Training for the Fund, to visit NIH during the April-May study section meetings to observe and discuss grant mechanisms with PHS officials.

Dr. Lindsay also visited Panama, Chile and Brazil to discuss research (See DR. LINDSAY, Page 1)

Small Staff Handles Big Job In Shepherding NIH Visitors

In view of the weekly minimum need for 450 pounds of bananas for the controlled diets of CC patients and animals under research, the

NURSES EVERYWHERE are interested in learning how patients are cared for at the NIH Clinical Center. These three from South Vietnam are inspecting a patient's room and equipment under the guidance of Josephine O'Connor, Chief, AMD Nursing Service (second from left) and Janet H. Elms, AID Nursing Service. Arrangements for the guided tour were made by the Special Events Section. The visiting nurses are, left to right: the Misses Nguyen Thi Tan, Tran Kim Luc and Ho Thi Tuyet—Photo by Bob Pumphrey.

Strategically located on the first floor of the Clinical Center just off the main lobby is a small unit that does a big job in furthering understanding of the Clinical Center and of NIH.

The Special Events Section, headed by Dorothy P. Horlander, handles a voluminous amount of correspondence, keeps three telephone lines busy, and tours thousands of visitors through the Clinical Center and other parts of the reservation.

Because of the scientific and technical nature of the research programs of NIH, the Special Events Section was established for the purpose of providing assistance to visitors with medical, scientific and para-medical interests and affiliations. Some idea of the extent of the operation may be gleaned from the fact that in the first half of Fiscal Year 1963, Mrs. Horlander and her assistant, W. Claudette Pifer, took care of 2,377 visitors—677 from foreign lands and 1,700 from all parts of the United States; arranged 625 appointments with NIH staff members; handed out 12,002 copies of NIH publications; showed the NIH film 217 times for

As a result of the temporary absence of Dr. Stuart M. Sessoms, Deputy Director of NIH, Dr. James A. Shannon, Director of NIH, recently announced that the Surgeon General has agreed to detail Dr. Allen to NIH for a period of two months.

During this time Dr. Allen will function as Acting Deputy Director, Dr. Shannon said, and will be in close touch with Dr. Sessoms to keep him informed of developments. Mail addressed to Dr. Sessoms' office will continue to be delivered there, Dr. Shannon said.

SMB, United Fruit Combine to Change Tune of 'Yes, We Have No Bananas,'

"Yes, We Have No Bananas" could very well have taken on tragic overtones recently for Clinical Center patients and NIH research experiments had it not been for the prompt action of the Supply Management Branch and the United Fruit Company.

The situation arose out of the continuing dock strike which has reduced imports of certain foods and fruits, including bananas, to a mere trickle.

By January 10 the situation was becoming serious for CC patients on controlled diets, not to mention animals being used in research experiments involving controlled diet conditions. In neither instance are

(See BANANAS, Page 7)

(Continued on Page 6)
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DR. ALLEN

(Continued from Page 1)

these grants, the Service, during the current fiscal year, is receiving $1,163,888,000 through 23 appropriations.

“In considering the recent developments that have come about in each category of grant programs,” Dr. Terry said, “it is apparent that a control point is essential for continuing review and evaluation of grant policies. It will be the responsibility of the Grants Policy Officer to achieve consistency in grant policies and to strengthen administrative management in all of our grant programs.”

The Grants Policy Officer will function directly under the Surgeon General and the Deputy Surgeon General.

He also will serve as Chairman for the Interbureau Advisory Committee for Extramural Programs. This committee is responsible for the development of Service-wide policy and procedures relative to the extramural programs.

Has Extensive Background

“Dr. Allen has an extensive background and a wealth of experience in the field of grants administration,” Dr. Terry said. “He has gained national and international recognition through his demonstrated abilities and competencies in this broad area.”

A native of Georgia, Dr. Allen was graduated magna cum laude from Emory University with the degree of Bachelor of Philosophy. He received his Master’s and Doctor of Science degrees from Emory University in 1934 and 1936.

Dr. Allen entered the Public Health Service in 1943 as a public health representative in the Venereal Disease Program, and in 1946 became the first Assistant Chief of the new Division of Research Grants at NIH.

He was named Chief of DRG in 1951, and in 1960 became NIH Associate Director for Research Grants.

Special Job Opportunities

Typing Unit Supervisor with Flexowriter experience, GS-5 or 6, is needed in the Division of Research Grants. Call Ext. 6474 for further information. NINDB has need for several Statistical Coding Clerks, GS-2 and 3. The positions are located in the Robin Building, Silver Spring. Call Ext. 6355 for further information.

Nursing Assistant positions (trainee), GS-2 are available (males only) in the Clinical Center. Assignments are on a rotating shift. Call Ext. 2164 for further information.

CU Membership Elects Officers for '63-'64

All nominees for the Board of Directors and the Credit Committee submitted by the nominating committee were elected by the membership of the NIH Federal Credit Union at its annual meeting January 17.

Elected to the Board of Directors for 2-year terms were:

- Dr. D. Jane Taylor, NCI; Dr. Morris Belkin, NINDS; John A. Beglin, OD; Jeanne H. Walton, NIH; and Willis D. Wine, OD.
- William J. Stalter, DBS, and Jean M. Pope, CC, were elected for 2-year terms to the Credit Committee.

The Board of Directors’ recently announced policy of paying annual dividends on share holdings, which became effective January 1, was discussed and members expressed accord with the action.

Five CU members were awarded cash door prizes of $10 each. Among these were Mary Langley, NCI; Mrs. Frances Carrigan, NLM; Eleanor Wyatt, NIAID; Jay Miller, NIAMD; and Frances Pettinato, NIDR.

The Internal Revenue Service collects nearly $100 billion per year at a cost of only about 1/2 cent for every dollar of revenue brought in.

Extended Bus Service Now Being Arranged for FASEB Meeting

As a result of the successful use of chartered buses in transporting NIH personnel to and from last year’s annual meeting of the Federation of American Societies for Experimental Biology, this mode of transportation will be made available again this year to those attending the Federation’s meetings in Atlantic City, April 23-29.

In making the announcement, Dr. G. Burroughs Mider, NIH Director of Laboratories and Clinics, pointed out that the use of buses last year “proved to be both convenient for the traveler and economical for the Government.”

Buses Are Modern

“This year,” he said, “we plan to extend this service to meet the needs of additional personnel. We have been assured by the bus company that only late model buses will be used and that they will be equipped with air-conditioning, reclining seats, and lavatories.”

Further information concerning bus schedules, reservations and tickets will be published in the Record and by memorandum. Dr. Mider said, immediately following receipt and distribution of the Federal program in March.

Medicine-History Group Meets Here Jan. 31

The next regular meeting of the Washington Society for the History of Medicine will be held January 31 (Thursday) at 7 p.m. in Wilson Hall, Building 1.

The program will include a color film, “William Harvey and the Circulation of the Blood,” with commentary by Morris C. Leikind, M.D.; and “Remarks on the Current Status of Research in the History of the Life Sciences,” by Dr. James H. Cassedy, Ph.D., Executive Secretary of the Life Sciences Section, DRG.

The meeting is open to visitors.

Spring Registration Dates Set for Evening Courses

NIH employees interested in attending evening courses at NIH or nearby institutions may wish to note these registration dates for the spring semester: February 17 for Advanced Education in the Sciences (NIH), Jan. 26-Feb. 2; American University, Jan. 31-Feb. 2; George Washington University, Jan. 31-Feb. 2; University of Maryland, Feb. 4-8; Department of Agriculture Graduate School, Jan. 26-Feb. 2.

Dr. Hathaway Appointed Chief of Clinical Center Diagnostic X-Ray Dept.

Dr. James A. Shannon, Director of NIH, has announced the appointment of Dr. Betty E. Hathaway as Chief of the Diagnostic X-ray Department of the Clinical Center, succeeding Dr. Theodore F. Hilibish who retired from the Public Health Service last year.

Dr. Hathaway is well known in the field of research and medical care. She has been with the Public Health Service since 1952 and on the NIH staff for five years.

In her new position, Dr. Hathaway will direct a complete diagnostic radiological service for the clinical services of various NIH institutes, including the operation of an isotope clinic, diagnostic research examinations on animals, the conduct of research to improve diagnostic methods, and the provision of advice and consultation on radiological problems to other governmental agencies.

Directs New Facility

In the immediate future she will direct the equipping and operation of the radiographic facility in the Clinical Center’s new surgical wing.

Before coming to NIH in 1958 as Assistant Chief of the Clinical Center’s Diagnostic X-ray Department, Dr. Hathaway was Assistant Chief of Radiology at the USPHS Hospital at Atlantic City, New Jersey, from 1953 to 1955, she was Assistant Chief Medical Officer of the Federal Reformatory for Women in Alderson, W. Va.

A native of North Manchester, Ind., Dr. Hathaway received a B.Sc. degree in 1944 from the University of Indiana. She attended George Washington University School of Medicine, and received her M.D. from the University of Indiana School of Medicine in 1952.

Her internship and residency in radiology were completed in 1958 at the USPHS Hospital in Baltimore and Johns Hopkins Hospital.

Is ABR Diplomate

Dr. Hathaway is a diplomate of the American Board of Radiology and a member of the American College of Radiology, the Radiological Society of North America, and the American Medical Association.

In addition to her duties as Chief of the Diagnostic X-ray Department, Dr. Hathaway serves on a number of NIH committees, including the Medical Board, the Radiation Committee, and the Clinical Center Safety Committee.
New Technique Permits Study of Brain Cells' Chemical Susceptibility

A new micropipette technique developed by a National Institute of Mental Health scientist has opened the way for the systematic analysis of the chemical susceptibilities of individual cells in various regions of the central nervous system.

The technique was perfected by Dr. Gian Salmiarghi, Chief of the Section on Neurophysiology of the NIMH Clinical Neuropharmacology Research Center.

Dr. Salmiarghi's new technique makes it possible to map the characteristics of cell populations in areas of the brain which may be directly concerned with such autonomic functions as respiration and maintenance of blood pressure, and such behavior as hunger, thirst, aggression and sex.

Uses 5-Barrel Micropipette

An analysis of the chemical susceptibilities of cells in the brain of the cat, using a 5-barrel micropipette and involving some 800 cells, has already shown that not all cells are uniformly responsive to acetylcholine, a substance which has long been regarded as a chemical mediator in peripheral autonomic nets.

Of all studied, about 75 percent failed to change their rate of discharge in response to the substance.

Approximately 25 percent consistently increased and five percent consistently decreased their activity during or just after administration of acetylcholine.

Differential response patterns also are being observed with other substances such as epinephrine, norepinephrine and serotonin.

Long term studies now underway are exploring the chemical susceptibility of other areas of the brain such as the olfactory bulb and the hypothalamus.

These findings were reported at the Symposium on Drug Action on Microstructures during the Colloquium Internationale Neuro-Psycho pharmacologicum in Munich.

Correction

William M. Haenszel is Chief of the Biometry Branch of the National Cancer Institute, and Nathan Mantel is Head of that Branch's Experimental Statistics Section.

In the December 15 issue of the Record Mr. Haenszel was erroneously identified as Chief of the Biochemistry Branch and Mr. Mantel as Head of its Experimental Statistics Section. NCI has no Biochemistry Branch. It has a Laboratory of Biochemistry.

NIDR Investigator Observes Possible Conjugal Bridges in Bacteria

Various investigators have repeatedly sought evidence for sexual reproduction of bacteria, both by attempts to cross particular strains and by observation of stained preparations and electron micrographs. The discovery, in 1946, of genetic recombination of one strain of bacteria (Escherichia coli K-12) was shown later to be a true sexual process requiring live, intact cells as well as actual cellular contact. The phenomenon is somewhat analogous to fertilization among higher organisms in that a transfer of genetic material takes place. The event seldom occurs more frequently than 1 per 100,000 parental cells.

Observes 'Bridges'

In a study of the ultrastructure of a strain of Bacteroides, Dr. Howard A. Bladen, Jr., Laboratory of Histology and Pathology, National Institute of Dental Research, observed certain morphological entities in thin sections which he speculated may be conjugal bridges. He reports cells which were united, not by simple fusion of the cell walls, but rather by tubes or bridges of variable lengths, which occurred at different areas of the organism.

The diameter of different bridges varied from 110 to 500 angstroms, and in their lengths from 0.15 to 0.9 microns.

A significant observation was that the longest bridge seen was also the thickest, suggesting that increased lengths are not attributable to stretching. In addition, the cell wall of the organism appeared continuous with that of the connecting bridge.

Bridges Described

In some electron micrographs, the bridges appeared to be bordered by two double structures, each approximately the same diameter and having the same architectural pattern as the cell wall of the organism. The cytoplasmic membrane, on the other hand, appeared unbroken at the site of bridge attachment and thus would seemingly act as a barrier to DNA transfer.

It is possible, however, the author speculates, that a point of continuity may be present in adjacent but unobserved areas, or perhaps discontinuity of the cytoplasmic membrane is not a necessary precursor for transfer of nuclear material.

Further work is now in progress to clarify the occurrence of recombination with this bacteria, the direct morphological evidence of DNA transfer, and the mode of formation and complete mobility of the bridge.

The study, "Demonstration of an Unusual Ultrastructure Found in Bacteroides: A Conjugal Bridge?", is in the January issue of the Journal of Bacteriology.

DHEW Announces Fifth Water Pollution Control Lab-Research Facility

The selection of the University of Michigan at Ann Arbor as the location for a water pollution control field laboratory and research facility to serve the Midwest was announced recently by the Department of Health, Education, and Welfare.

The laboratory—one of seven regional facilities authorized by Congress in 1961—will be designed and operated by the Public Health Service.

The University of Michigan is the fifth site to be selected. Previously announced sites for regional laboratories include Ada, Okla., to serve the Southwest; Corvallis, Ore., to serve the Pacific Northwest; Athens, Ga., to serve the Southeast; and College, Alaska.

Northwestern and New England Atlantic locations are yet to be selected.

Serves 14-State Area

The University of Michigan laboratory will serve the 14-State Great Lakes Region which has some of the most pressing water resources and pollution control problems in the country.

Many of the research projects to be carried out by the laboratory will be cooperative endeavors making use of the resources of various schools and departments of the University, DHEW said, such as the School of Public Health, the Medical School, the College of Engineering, the School of Natural Resources, and the Institute of Science and Technology.

The new laboratory and research facility, costing over $2.5 million, will have approximately 50,000 square feet of floor space and be staffed by about 150 scientists, researchers, and engineers.

Red Cross Bloodmobile To Visit NIH Feb. 5

The American Red Cross Bloodmobile will make its winter season visit to NIH on Tuesday, February 5, from 9:15 a.m. to 1 p.m. As in the past, the ARC Bloodmobile will be headquartered in Wilson Hall on the third floor of Building 1.

NIH employees over 18 and under 60 years of age are eligible to donate blood. Volunteer donors under 21 must have written permission of a parent or guardian. Rental or guardian permission forms may be obtained in Bldg. 1, Rm. 31.

Blood donors may give blood once every eight weeks or five times a year. Volunteers are cautioned not to eat any fatty foods for at least four hours prior to their appointment.

For additional information call Ext. 4651.
Cancer Studies May Be Aided by Discovery of Tadpole-Shaped Virus

Scientists of the National Cancer Institute have discovered an important resemblance in shape between an animal leukemia virus under study and certain bacterial viruses whose method of attack is well known.

Drs. Albert J. Dalton and John B. Moloney share the credit with Dr. François Haguenuau of the College of France in Paris, for the finding that a form of the leukemia virus has a 6-sided head and a tail. They believe that this particle is the mature form of the virus.

Study in Progress

A study is in progress to determine whether the leukemia virus acts like the virus that attacks bacteria by attaching its tail to the single-cell organism and injecting it with the disease-causing nucleic acid.

An understanding of how the leukemia virus does its work in animals would help investigators devise ways of proving the theory that viruses cause human leukemia, a form of cancer that takes more than 12,000 lives a year in the United States.

Though many other viruses are known to cause various forms of cancer and other diseases in animals, animal virus particles have not been previously reported to have the tadpole-like shape of bacterial viruses.

The work leading to this discovery began three years ago when Dr. Moloney isolated the virus which causes leukemia in mice and rats.

Technique Devised

Drs. Dalton and Moloney subsequently devised a technique for obtaining virtually pure virus in the form of tiny pellets made by spinning the blood from leukemia-bearing animals at high speeds in a centrifuge. Thin slices of the pellets examined with an electron microscope showed both spherical and tadpole-like particles.

The possibility that the high-speed spinning had caused the particles to become elongated was ruled out when tadpole-like shapes were also found in leukemia-bearing animals' bone marrow cells that had not been centrifuged.

Then, during a recent visit to the National Cancer Institute, Dr. Haguenuau worked with Drs. Dalton and Moloney in using a special staining technique that produces a vivid image of the virus particles in electron micrographs that magnify the particles up to 100,000 times.

The tadpole-shaped particles are

Immobilization of Joints Before Birth Seen as Cause of Clubfoot

Results of a study of animals by investigators from the National Institute of Neurological Diseases and Blindness indicate that congenital clubfoot (talipes)—one of man's commonest birth defects—may be caused by brief immobilization of joints before birth.

By administering curare, a paralyzing drug, to unharmed chicks, Drs. Daniel B. Drachman and Alfred J. Conners of the Laboratory of Neuroanatomical Sciences, produced an experimental disorder similar to clubfoot as it occurs spontaneously in man. Since more than one joint was usually involved, the experimental disease fulfilled the definition of "arthrogryposis multiplex congenita."

Causes Paralysis

Intravenous infusions of curare in the chick embryo for periods of 24 to 48 hours, caused transient paralysis which consistently resulted in joint deformity at the time of hatching. The limb disorders were clearly related to the chicks' embryonic position and the contour of the shell. The degree of deformity was increased by longer infusions, higher concentrations of curare, and older ages of the embryos.

Pathological examination of the deformed chicks showed that all normal structural elements of the limbs were present. In the affected limbs, joint rigidity was due to contractures of the skin, tendons, and ligaments, and occasionally to fibrous adhesions between the joint surfaces. No lesions were found in the spinal cords or skeletal muscles.

Although the cause of clubfoot has been unclear, clinical observations have previously implicated diseases or other factors which limit embryonic movement. By determining the exclusive effect of immobilization upon otherwise normal embryos, this study supports the hypothesis that prenatal joint movement is required for normal joint development.

The study is reported in Lancet.
The retirement of Dr. Curtis G. Southard as Chief of the Community Services Branch of the National Institute of Mental Health was announced recently by Dr. Robert H. Felix, Director of the Institute.

Dr. Southard, who has been appointed Director for a new comprehensive mental health program in Montgomery County (Md.), was named Chief of the NIH Branch from 1954 until his retirement.

Primary aim of the Montgomery County program which Dr. Southard will head is to provide local residents with preventive services, early diagnosis and treatment, and to serve as a base for aftercare of discharged hospital patients.

New cardiac catheter permits rapid fluid injections under low pressure

National Heart Institute scientists have devised a new cardiac catheter which permits the injection of large fluid volumes under low pressure while eliminating the difficulties and hazards that may attend the passage and manipulation of large conventional catheters.

Certain heart catheterization procedures, such as angiography or partial right-heart bypass, require that large volumes of radiopaque materials, blood, or other fluids be injected rapidly under low pressure.

Large Diameter Required

For adequate perfusion, a catheter with an exceptionally large inner diameter is required. The passage and positioning of such large catheters is frequently difficult and sometimes hazardous.

These problems have been overcome by the new catheter unit devised by Drs. H. W. Bender, B. R. Wilcox, and A. G. Morrow of the NIH Surgery Branch.

The new catheter unit consists of ordinary cellulose tubing which is threaded over a #6 or #7 Crawford catheter (2-2½ mm. diameter). A Y-adaptor at the distal end separates the lumen of the tubing from that of the catheter.

The assembled unit is soaked in saline to soften the tubing, allowing it to collapse and adhere snugly to the catheter. It can then be easily passed and positioned in the heart or one of the great vessels.

Tubing Expands

When contrast materials or other fluids are injected, the inner diameter of the tubing expands symmetrically to 6.3 mm. This is equivalent to a #20 conventional catheter.

In animal experiments, the catheter permitted flows as great as 3,500 cc./minute at low perfusion pressures during closed chest, right-heart bypass.

It also permitted the rapid injection of radiopaque materials by means of a hand syringe, yielding consistently excellent X-ray visualization of the heart.

The catheter was described at the 1962 meeting of the American College of Surgeons.

New contracts awarded under vaccine program administered by NIAID

Five new contracts to manufacture new vaccines or to evaluate their efficacy in a variety of populations known to be specially susceptible to acute respiratory illnesses have been awarded under the Vaccine Development Program administered by the National Institute of Allergy and Infectious Diseases. These contracts bring to ten the number thus far awarded under the program.

Recipient of the five new contracts are:

Cutter Laboratories, the National Drug Company, and Wyeth Laboratories, commercial pharmaceutical firms which will work on the development and testing of new viral vaccines; and Tulane University and the Hektoen Institute for Medical Research of the Cook County Hospital, which plan to make clinical evaluations of newly developed vaccines in those special groups known to be particularly vulnerable to acute illnesses of the respiratory tract.

Population Studied

The populations chosen for study at Tulane University include employees of two industrial plants in Louisiana, 50 children at a State institution, and a military group stationed at an Air Force base.

At the Hektoen Institute both naturally occurring and experimental infections will be studied, including the effects of vaccine prophylaxis, in adults 65 years of age and older.

The industrial groups and older people represent two kinds of susceptible populations not previously under surveillance in the program.

Previously NIAID had announced the award of the first five contracts let since the program’s inception last February. The firms and clinical centers awarded these contracts for vaccine development and evaluation were: Abbott Laboratories, Charles Pfizer and Co., Inc., Wyeth Laboratories, Children’s Hospital of the District of Columbia, and the University of Colorado Medical Center.

Children’s Hospital and the University Medical Center are evaluating vaccines in children, and the University also is studying the problem in military populations.

Dr. Shulman Addresses La Jolla Symposium

Dr. N. Raphael Shulman, Chief of the Clinical Hematology Branch of the National Institute of Arthritis and Metabolic Diseases, was one of the speakers invited to address the Third International Symposium on Immunopathology, held in La Jolla, Calif., January 14-18.

Dr. Shulman, speaking on “Mechanism of Blood Cell Damage by Drug- and Isoantibodies,” described some of the results of recent studies on purpura and hemolytic anemia induced by foreign antigens.

He described the mechanisms by which antibodies against foreign antigens can damage cells in a manner resembling an autoimmune phenomenon.

These meetings are sponsored by the National Foundation-March of Dimes, the Scripps Clinic and Research Foundation, and the Atomic Energy Commission.
Small Staff Handles Big Job

(Continued from Page 1)

2,131 people; conducted 830 visitors on 138 tours through various areas of NIH, and assisted 5,959 persons attending meetings and lectures here.

This adds up to a total of 8,336 persons served directly by Special Events in the 6-month period. As NIH expands, the Section's duties increase. It will get additional help this month when Mary B. Calley joins the staff. Formerly with NCI and more recently in NIHDB, she has had years of experience here.

Because of its world-wide reputation, NIH has many visitors from foreign lands, sent here through their embassies and the U. S. State Department. And one of the functions of the Special Events Section is to implement the willingness of NIH to share information about progress on all fronts in its war against disease.

The Section aims, therefore, to make visits to NIH as informative as possible, but without interruption of scientific research in the laboratories.

In a sense every visitor constitutes a special event, since each one receives special, individual attention. Professional or pre-professional guests (medical or dental students) usually have a specific interest that they wish to pursue. Consequently a call to the appropriate investigator or laboratory ordinarily will allow arrangements to be made.

Most students are curious about the electron microscope, the germ-free labs, and the radiation counter unit. But Special Events does its best to distribute the visits among many laboratories so that none will be disturbed unduly.

Arrangements Sometimes Difficult

Since this is not always possible, Special Events sometimes asks the most-visited labs to suggest alternative areas.

When the visitor or group has no knowledge of the extent of NIH research programs, planning and arrangements are much more difficult. Often these visitors do not realize that NIH is an active research center and that progress is slowed if work is constantly interrupted. However, when prior commitments do not make it impossible, the Special Events staff does its best to arrange an interesting program.

To acquaint outsiders with the primary facts about NIH without interrupting the scientists, the Section has worked out a general orientation program. This consists of a showing of the NIH film, presentation of a folder of literature, and a tour of the Clinical Center.

Because of the large volume of visitors, the auditorium or a conference room is usually reserved for the film showing at 10 a.m. and again at 2 p.m., to be followed by the guided tour of the Clinical Center for those of professional background.

Contrary to common belief, this program is not presented without prior arrangement, since other commitments frequently interfere with these programs.

In addition to the stream of visitors, the Section handles the arrangements and many details in connection with the numerous symposia and lectures held both on the reservation and in Washington.

A tremendous amount of detail work is involved—the mailing of invitations, and arranging for photographers, television engineers, caterers, and projectionists.

Mrs. Horlander and Mrs. Pifer deal constantly with people, and judging by the letters of commendation they receive from visitors, they are doing better than all right as the unofficial "hostesses of NIH."

Concluding their visit to NIH, the three nurses from South Vietnam pose prettily for Cameraman Bob Pumphrey in front of the Clinical Center, armed with envelopes containing NIH information material. Their visit to this country was arranged by the International Cooperation Administration. From left: Nguyen Thi Tan, Ho Thi Tuyet, and Tran Kim Liu.

Dr. Wilson to Edit New NTA Medical Quarterly

The National Tuberculosis Association and its medical section, the American Thoracic Society, have announced the publication of a new medical quarterly magazine. Entitled Clinical Notes on Respiratory Diseases, the quarterly is designed primarily to help physicians keep abreast of new developments in the field of respiratory diseases.

It is edited by Dr. Julius L. Wilson, Director of Medical Education for the American Thoracic Society, and will be distributed to doctors throughout the country by the associations affiliated with the National Tuberculosis Association.

Science writers who wish to receive the publication are requested to contact the National Tuberculosis Association, Division of Education and Public Relations, 1790 Broadway, New York 19, N. Y.

Galactosemia Believed More Complex Than Previously Considered

Recent findings by scientists of the National Institute of Arthritis and Metabolic Diseases, that liver tissue from certain congenital galactosemic patients may be capable of metabolizing galactose, indicate that galactosemia is a more complex disease entity than previously thought.

The exact biochemical defect in galactosemia was demonstrated in 1956 by other NIAMD investigators who found that galactosemic individuals lacked the enzyme, galactose-1-phosphate uridyl transferase required for complete metabolism of galactose.

Because of this inherited enzyme deficiency, galactose-1-phosphate accumulates in the blood and tissues and produces liver damage, gastrointestinal symptoms, cataracts, and progressive irreversible brain damage.

Recent Report Cited

NIAMD investigators have recently reported that two out of eight galactosemic patients who were studied were capable of oxidizing radioactively-labeled galactose to carbon dioxide in vivo in a near-normal fashion in spite of an otherwise typical galactosemic syndrome— including cataracts and mental retardation.

It was apparent that some tissues within these individuals must be capable of metabolizing galactose, the scientists continued with in vitro studies of five tissues of one of the patients (white blood cells, red blood cells, skin, intestinal mucosa and liver).

Of these, one liver was found to compare favorably with normal control tissue in its ability to oxidize galactose to carbon dioxide.

This observation indicates that marked differences in galactose oxidizing capacity can exist between different tissues of a galactosemic subject.

The studies were conducted by NIAMD Drs. ard Laster, and Stanton Segal, and appear in Science.

1962 College Enrollment Is Record 4.2 Million

The U. S. Office of Education recently reported that enrollment of full and part-time college students increased for the 11th consecutive year last fall to an all-time high of 4,207,000. The total exceeded by 8.1 percent the record of 3,891,000 set a year earlier.

The 1962 fall enrollment was 2,603,000 men and 1,604,000 women, an increase of only 1.2 percent from the fall 1961 figure. Of these, 1,039,000, an increase of 3.6 percent, were women.

The survey includes only degree-credit students whose current program consists principally or wholly of work leading toward a bachelor's degree or higher. Reported enrollments include both resident and extension degree-credit students, full and part-time.

(Continued from Page 1)
Support Among American Physicians

An increasing number of American physicians are participating in a Public Health Service training program to improve psychiatric competence within the medical profession, Surgeon General Luther L. Terry announced recently.

The program, conducted by the National Institute of Mental Health, is designed to (1) increase the number of psychiatrists in the country, and (2) strengthen the role of the family physician in dealing with mental illness.

The first aspect of this dual program provides stipends for residency training of physicians who want to switch from their present specialties to psychiatry.

Orientation Provided

The second provides part-time postgraduate psychiatric training for general practitioners and other medical specialists who intend to continue practicing in their own fields, but want orientation in psychiatric concepts in order to recognize and deal with mental illness in its early stages.

The program is expected to substantially increase the number of physicians to combat the mental illnesses which are responsible for more than half the patient loads of this country's hospitals.

In 1959, the first year of the program, residency training stipends, available to physicians for up to three years of psychiatric study, were awarded to 113 physicians. In 1961 a total of 298 stipends was awarded in 104 institutions.

These awards are designed to make it possible for a physician to give up his private practice to prepare for specialization in psychiatry.

Enrollees Increase

The number of enrollees in the training courses for non-psychiatric physicians who want to increase their knowledge of psychiatry to apply it to their own practices grew from 1,603 in 1959 to 1,977 in 1961.

Although many more physicians are involved in the second aspect of the program, residency training takes the bulk of the funds available through NIMH because residency training is a full-time program for its participants.

As pointed out by Dr. Robert H. Felix, Director of NIMH, the aid provided for part-time training is not to make psychiatrists out of general practitioners but to help today's family physician treat his patients' emotional problems and detect mental illness in its early stages, referring patients with serious mental disorders to a psychiatrist.

"By training the general practitioner in psychiatry," Dr. Felix said, "we are entering a relatively untouched area of medical education."

The importance of this phase as an adjunct to formal psychiatry was pointed out by a nationwide survey conducted by the Joint Commission on Mental Illness and Health. The survey revealed that, next to clergymen, physicians other than psychiatrists were most often consulted by persons with emotional problems.

Many patients who need psychiatric help are reluctant or unable to obtain it usually reveal their emotional problems to their family physicians, Dr. Felix pointed out.

According to an NIMH survey, more than half the physicians in the postgraduate training program in 1959, 1960, and 1961 were in general practice. Internal medicine and pediatrics accounted for approximately 20 percent of the group.

Institutions Offer Training

The training is offered by hospitals, clinics, medical schools, medical and psychiatric societies and other types of training institutions. In 1961, institutions received average annual grants of more than $13,000.

Lectures, question-and-answer sessions, small group discussions, case conferences, and conferences emphasize everyday problems of the physician's own practice.

Many physicians travel as far as 100 miles each way to attend the training sessions. Although most training is offered in metropolitan areas, instruction is also carried to geographically isolated physicians.

2-Way Radio Used

One medical college teaches courses over a two-way radio network which reaches a local medical college and most of the community hospitals in Northeast New York State and two neighboring States. Participants discuss problems over the air without leaving their home towns.

Typical subjects are emotional problems of adolescence, childhood, and old age; emotional problems of the doctor-patient relationship; psychodynamic problems and conflict; mental deficiency; emotional problems involved in bodily illness; and general psychiatric problems of private practice.

"The family doctor's interest in mental health is reflected in the enthusiastic reception of this program," Dr. Felix said.

Adele Goldston, NIMH, Dies of Leukemia Here

Adele Goldston, wife of Dr. Stephen E. Goldston, special consultant with Extramural Programs, Office of the Associate Director, NIMH, died on January 2 at the NIH Clinical Center where she was receiving treatment for leukemia.

At the time of her death, Mrs. Goldston was the staff of the Outpatient Studies Section, Biometrics Branch, NIMH. She worked previously with the Program Evaluation and Research Section of the Research Utilization Branch, formerly Community Services Branch.

Mr. Goldston was graduated from Coolidge High School and attended the University of Maryland. She and Dr. Goldston were married on September 2, 1962.
Type 1 Live Poliovirus Vaccine Strain Studied For Stability by DBS

A Division of Biology Standards study of live poliovirus from stool samples of infants fed Type I vaccine indicates that the neurovirulence of the vaccine strain is not completely stable.

A most important characteristic of any live poliovirus vaccine is its low neurovirulence for monkeys, even though no direct relationship between simian and human neurovirulence for poliovirus has been established. Stability of this characteristic is also desirable.

Previous studies have shown an apparent random instability for all the genetic characteristics of poliovirus.

Undertake Evaluation Study

Because of the importance of Type I poliovirus infection in the epidemiology of poliomyelitis, a study was undertaken by Dr. Robert M. Friedman, now with the National Cancer Institute; Drs. Ruth L. Kirschstein and Gerald Borman of DBS; and Dr. Frederick Robbins, Western Reserve School of Medicine, to evaluate the stability of the Sabin Type I poliovirus after gastrointestinal passage in newborn infants.

The investigators inoculated stool material from infants who had received Sabin Type I poliovirus strains when inoculated intraspinally rarely cause histologic changes.

The intraspinal route was selected because even as few as 10 tissue culture infectious units (TCID50) of a virulent strain of poliovirus, when inoculated by this route, can cause CNS lesions or even severe paralysis in monkeys, whereas 250 to 2,000 TCID50 of Sabin Type I vaccine strains when inoculated intraspinally rarely cause histologic changes.

Virus samples of low titer could thus be graded with respect to simian neurovirulence and compared to the Sabin vaccine strain which had been fed to a known virulent Type I strain; e.g., the Mahoney strain.

The Type I vaccine was compared with excreted virus on the basis of its ability to multiply in cell cultures at elevated temperatures (ret/40 marker) and of its neurovirulence for monkeys.

It was found that the simian neurovirulence characteristic of the vaccine tended to increase after human gastrointestinal passage in 4 out of 6 infants studied.

PHS Formula Grants

The booklet is Part IV of a 5-part series. Others list all grants in the years 1957 to 1961. In 1948 slightly over $1 million was awarded involving $25 million for mental health training programs in 44 institutions. In 1961 awards totaled more than $28 million in 907 grants to 305 institutions.

Trainee Stipends Increase

Trainees to have accounted for an increasing proportion of total grants, approaching 50 percent of the 1961 awards. In 1961 more than 3,800 graduate trainee stipends were awarded, compared with 219 in 1948. Since the program began in 1948 more than 18,000 such traineeships have been provided.

The report reveals a steady expansion of the types of support granted. Among the newer programs are grants to support psychiatric training for undergraduates, pilot projects designed to stimulate new methods of mental health teaching, and grants to train personnel from the biological and social sciences for research in the field of mental health.

Dr. Volker Appointed

Dr. Joseph P. Volker, Vice President for Health Affairs at the University of Alabama, Birmingham, has been appointed by Dr. Luther L. Terry, Surgeon General of the U. S. Public Health Service, to serve for the forthcoming year on the National Advisory Dental Research Council.