Dr. William A. Lybrand has been named Director of the new Division of Manpower Intelligence in the Bureau of Health Manpower Education.

As Director of DMI—established under the recent Manpower Bureau reorganization—Dr. Lybrand is responsible for analyzing and reporting data on national health manpower supply and demand.

The Division will also provide guidance on such information and data systems to other Bureau components and direct a National Clearinghouse for information on various aspects of health manpower.

Dr. Lybrand comes to the Division from The American University where since 1966 he has served both as Director of the Development Education and Training Research Institute, and as professor of Behavioral and Social Sciences, School of Government and Public Administration.

He received his B.A. degree from Muhlenberg College, and his M.Sc. and Ph.D. degrees from the University of Maryland. Following his graduation there Dr. Lybrand was appointed assistant professor. In 1955, he joined Psychological

(See DR. LYBRAND, Page 4)

Dr. William A. Lybrand
Heads BHME Division, Manpower Intelligence

The Hillebrand Award for 1970 will be presented jointly to two NIH employees—Drs. Herbert A. Sober and Elbert A. Peterson by the Chemical Society of Washington on March 11.

Dr. Sober is chief of the Laboratory of Nutrition and Endocrinology in the National Institute of Arthritis and Metabolic Diseases. Dr. Peterson is head of the Protein Chemistry Section in the Laboratory of Biochemistry, National Cancer Institute.

According to the Chemical & Engineering News (Feb. 15, 1971), the two prize winners will be cited for their discovery and development of modified cellulose ion exchangers.

These are used to separate, purify, and identify proteins, nucleic acids, and other materials of importance in the life sciences.

The Hillebrand Award for 1970 will be presented jointly to two NIH employees—Drs. Herbert A. Sober and Elbert A. Peterson by the Chemical Society of Washington on March 11.

Dr. Sober is chief of the Laboratory of Nutrition and Endocrinology in the National Institute of Arthritis and Metabolic Diseases. Dr. Peterson is head of the Protein Chemistry Section in the Laboratory of Biochemistry, National Cancer Institute.

According to the Chemical & Engineering News (Feb. 15, 1971), the two prize winners will be cited for their discovery and development of modified cellulose ion exchangers.

These are used to separate, purify, and identify proteins, nucleic acids, and other materials of importance in the life sciences.

Dedication Ceremony in North Carolina Opens 4 New Environmental Buildings

A cluster of four new buildings was dedicated yesterday (March 1) at the National Institute of Environmental Health Sciences Center, Research Triangle Park, N.C.

The dedication marked an important step toward completion of Phase II, a major Institute expansion program.

North Carolina Governor Robert W. Scott was among the dignitaries expected to take part. NIEHS Director Dr. Paul Kotin headed the Institute officials at the ceremony.

Scientists and others will move into the new facilities in the next few weeks. Total net additional space is about 30,000 square feet.

Lab Space Doubled

Laboratory space accounts for 17,000 feet of this, almost doubling NIEHS's previous laboratory facilities. New animal facilities total almost 13,000 square feet, more than quadrupling previous animal space.

Dr. Hans Falk, NIEHS Associate Director for Laboratory Research, said "for the first time we will be able to undertake long-range, low-level exposures of animals that are protected against accidental exposure to pathogens from human or other sources."

Dr. Falk explained that all humans who enter the new animal building will shower and don sterile garments. They will enter 22 animal rooms from a "clean" corridor and when they leave the building they must exit through other corridors.

To reenter the clean area, they must go through the shower and sterile clothing procedure again. A positive pressure air system will create invisible barriers to pathogens and other particulates when doors are opened.

Controls Possible

In the animal holding rooms, temperatures, humidity, and lighting are controlled. For example, a precise combination of these three factors that encourage opussums to breed can be obtained.

These marsupials have been found by NIEHS scientists to be

(See DEDICATION, Page 6)
Stamps Honoring Blood Donors Will Be Issued
By Gotham Postmaster

The U.S. Postal Service will issue a stamp to salute blood donors and to also urge others to participate in this vital program. The Clinical Center announced the issuing of the stamp.

A similar stamp, used in France, was credited with tripling the amount of blood contributed in that country.

In honor of National Blood Donor Month this past January, President Nixon stated: “Among the noblest acts of personal generosity is the gift of one’s blood for the benefit of another. It is a contribution to health and life for which there is no substitute.”

The 6-cent stamp will be issued in New York City. NIH philatelists may request first day cancellations from the Postmaster, New York, N.Y. 10001. Orders should be sent in by March 12; include name, address, zip code and remittance.

Alcoholism Discussed in Film; EHS Offers Counseling Aid

Alcoholism is the subject of “Time for Decision,” the March movie presented by the Employee Health Service. The Employee Health Service offers confidential counseling service to employees who feel alcohol has become overly important in their lives.

The movie will be shown at the Jack Masur Auditorium, CC, on Wednesday, March 17, at 11:30 a.m. and 12:15 p.m., and at the Westwood Building, Conference Room D, Thursday, March 18, at 1:15 and 2 p.m.

Scientists Record at CC

For VOA Broadcast

Dr. Irwin Kopin, chief of the NIMH Intramural Research Laboratory of Clinical Science and an associate, Dr. Louis Lemberger, recently participated in a round table discussion on drug research conducted by the Voice of America.

The program, recorded in the Clinical Center, will be heard first on the Voice of America's Far East Network.

Dr. Erminio Costa and Dr. Aurora Revueltas of the Mental Health Intramural Research Program's St. Elizabeths Hospital laboratories joined in the discussion, moderated by Alan Strong of VOA.

It reviewed current knowledge of the metabolism of marijuana, amphetamines, and other drugs, including alcohol.

Importance of continued research was stressed by the scientists.
Dr. Bruno, New Chairman of STEP, Proposes Revised Goals and Objectives

By Bonnie Friedman

"If you can identify the right people—the problem solvers, impress them with the importance of what you wish to accomplish based on a critical view of realistic goals, you can move mountains."

With this outlook, Dr. Anthony Bruno assumed chairmanship of the Committee on Staff Training-Extramural Programs (STEP). The group serves as advisors to the NIH Associate Director for Extramural Research and Training, Dr. R. W. Lamont-Havers.

Conception of the STEP Committee dates back to 1962 when Dr. Dwight C. Monnier, then assistant chief for Training Grants, Division of Research Grants, suggested appointment of such a group.

By June of the following year, a committee was established.

The mission of the committee—"to accelerate professional growth, increase competency and continue development of necessary skills in grants administration and management"—was set forth by Dr. Stuart M. Sessions, former NIH Deputy Director.

Dr. Bruno, senior project scientist, Medical Devices Applications Program, National Heart and Lung Institute, like all committee members, was appointed by Dr. Lamont-Havers. He will serve a one-year term.

In addition to the 12 appointed members, representatives from the Associate Director's office, Grants Associates Program, and Office of Personnel Management serve as ex-officio members on the committee.

The present committee consists of Drs. Bruno; Mordecai H. Gordon, NCI; Barney C. Lepovetsky, NIDR; Samuel Schwartz, DRG; James O'Donnell, DRR; Laurence H. Miller, NIAMD; Ann Kaufman, NLM; Arthur Hening, NIGMS; and William Gay, NIAID; also, Richard Hopkins, NICHD, and Robert Townsend, NCI.

Their main concern is the training of extramural personnel.

In order to accomplish this end, the committee operates on two levels. In addition to serving as an advisory group to the Associate Director for Extramural Research and Training, STEP acts as a steering committee on the recommendations accepted by Drs. Lamont-Havers.

Dr. Bruno has set four goals for the coming year.

The first is an indoctrination program for direct-hire personnel. The chairman explained that employees who come on board directly, not through the Grants Associates Program, need a special orientation.

Proposes Seminar

He therefore proposes an initial one-day seminar to explain NIH activities by bringing together senior staff personnel from the various institutes, the Clinical Center, and the Office of the Director.

As part of the program, the committee is working on identifying important documents, such as Congressional committee reports related to NIH, which will be presented to each employee at the seminar.

Each employee will receive several important documents upon which to build his own personal reference library. In addition to the usual basic organizational handbook, such documents as the Foundation Committee Report and selected reading from Science and Public Policy seminars will be included.

Dr. Bruno plans, as follow-up to the orientation seminar, to conduct bi-monthly afternoon workshops where participants will discuss issues based on materials contained in these documents.

His second proposal is an ongoing training program. Under this plan, (See STEP GOALS, Page 8)
Indian Studies Reveal Toxin Ingestion Linked To Childhood Cirrhosis

A common mold found on peanuts and other food items grown in tropical countries may be linked to liver diseases in children. The mold—aspergillus flavus—produces a toxic factor, aflatoxin, known to be severely hepatotoxic in the young of many animal species.

In earlier studies scientists at the Mysore Medical College and the Central Food Technological Research Institute in India, linked aflatoxin with cirrhosis in children living in that country. The investigators are doing research supported by the sponsorship of the National Institute of Allergy and Metabolic Diseases.

The toxin was identified in the urine of cirrhotic children, in the breast milk of their mothers, and in a dietary staple, crude peanut oil.

The accidental ingestion of aflatoxin-contaminated peanut protein flour by 20 Indian children has now permitted study of the toxic manifestations of this compound in human beings.

Follow-up Study Mode

In a follow-up study of one year's duration, the children developed hepatic lesions identical to Indian childhood cirrhosis, indicating that aflatoxin is, in all probability, involved in the etiology of this disorder.

The 20 children, ages one-and-one-half years to 5 years, all suffered from protein malnutrition prior to their accidental exposure to aflatoxin.

They had consumed one to two ounces of the contaminated material daily for 5-30 days. Characteristically, the soft hepato-megaly typical of protein malnutrition gradually progressed to the firm hepato-megaly with leafy borders typical of Indian childhood cirrhosis.

The gases used as propellants in aerosol sprays may affect the heart and, in certain circumstances, lead to sudden death. Researchers suggest that these findings may explain unexpected deaths among youths who turned on inhaling these gases deliberately and among asthma patients who use bronchial sprays excessively.

This study, supported in part by the National Heart and Lung Institute, was conducted by Charles J. Taylor IV and Dr. Willard S. Harris at the University of Illinois Hospital.

Methodology Described

In studies with laboratory animals, the researchers first exposed groups of mice to the propellant gases used in aerosol sprays. When they then asphyxiated these animals by markedly reducing available oxygen for less than a minute, they found that the mice's sinus rate—the heart's own pacemaker—slowed and that the mice quickly developed atrioventricular block. Either or both of these reactions slowed or stopped the heartbeat.

By contrast, in groups of control mice who were not exposed to the sprays but were asphyxiated in the same way for 4 minutes, their heartbeats increased in response to the lack of oxygen.

Tests Repeated

The heart changes in the group of mice tested with the aerosol propellants were rapid, long-lasting, and eventually lethal. When the researchers repeated these tests on rats and dogs, they noted similar results.

Pressurized spray dispensers release fluorokalane gases, many of which are called Freons, as propellants. Because of the deadly slowing of the heartbeat they produced in animals, the researchers suggest that these gases can no longer be described as "inert."

Additionally, the chemical structure of these gases resembles halothane, a gas which has a well-known cardiovascular effect.

Precise Mechanism Unexplained

Although they do not know the precise mechanism of these gases in humans, Mr. Taylor and Dr. Harris believe the cardiac effects of aerosol gases combined with lack of oxygen may play a role in two sudden death syndromes.

In the first syndrome, a number of deaths have occurred among youths "turning on" by directly breathing the gas from an aerosol can or the vapors from airplane glue. This situation combines the cardiac effects of the propellant gases with the lack of oxygen in the plastic bag used to cover the face.

The second syndrome occurs in patients with asthma who die unexpectedly and show evidence that they have used bronchial sprays excessively immediately before death.

The researchers postulate that the gas may gravitate down the air passage and become trapped in the tiny airsacs in the patients' lungs, thereby increasing blood levels of the propellant gases.

The increased blood levels of the gases and the asphyxia produced by a severe asthmatic attack may increase the effect of the gases on the heart and cause death.

Investigators Cautious

The investigators caution that their findings in animals cannot be applied directly to humans without further study.

They emphasize that the slowed heartbeat which was the most apparent effect of the gases in the laboratory animals may well be overshadowed in humans by other cardiac effects, such as fast or irregular contractions of the heart's main pumping chambers (ventricles), or may combine with other cardiac effects to cause death.

Because both turned on youths and asthma patients who die suddenly usually do not get to hospitals in time for an electrocardiogram, the exact heart changes in these patients is not known.

Millions of people use aerosol dispensers for cosmetic, household, and numerous other purposes.

Sensitivity Varies

The researchers suggest that people may vary in sensitivity to the harmful effects of the gases.

This research was reported in the Journal of the American Medical Association, Oct. 5, 1970.

Similar findings on the cardiac effects of glue-sniffing in mice were reported by Mr. Taylor and Dr. Harris in Science, Nov. 20, 1970.
Prolonged Corticosteroid Use to Treat Contact Lens Irritation May Harm Eyes

Patients who use corticosteroid eye drops, such as cortisone, over a long period of time to relieve contact lens irritation run a risk of developing glaucoma and cataracts.

Patients who are nearsighted or have a family history of glaucoma are especially prone to develop a rise in intraocular pressure on these medications.

These side effects from the prolonged use of corticosteroid drops and high risk groups have been previously reported.

Worn of Excessive Use

However, the large number of contact lens wearers, especially young myopic patients, and the use of corticosteroid drops to alleviate lens irritation has led two NIH grantees recently to caution against the unwarranted use of these drugs.

Citing the continued referral of young people with corticosteroid-induced glaucoma and cataracts, Drs. Ronald M. Burde and Bernard Becker of the Department of Ophthalmology of the Oscar Johnson Institutes, Washington University School of Medicine, reported on two illustrative cases.

Their study was done with grant support from the National Eye Institute and the National Institute of Neurological Diseases and Stroke.

The first, a 17-year-old girl, had been wearing contact lenses for 2 years but had difficulty in adjusting to them.

Her ophthalmologist had prescribed corticosteroid eye drops, and she renewed the prescription and continued its use for 16 months without his knowledge.

She developed glaucoma and cataracts in both eyes and suffered a permanent visual field loss.

The second patient, a 20-year-old woman, had been wearing contact lenses for 6 years, with continuing discomfort. She had been using a prescribed corticosteroid medication over a 4-year period to reduce this discomfort.

During the year prior to her examination at Washington University, she had been bothered by hazy vision and headaches.

When seen by the investigators, she was found to have glaucoma, cataracts, and a reduced visual field.

According to the investigators, the cases demonstrate the tragic side effects that can accompany the prolonged topical use of corticosteroids.

May Lead to Glaucoma

They feel that the clear definition of high risk groups should reduce the frequency of such occurrences, but point out that approximately 40 percent of the normal population will respond to corticosteroid drops with an increase in intraocular pressure which could lead to glaucoma.

The investigators conclude that the physician who sees a contact lens patient suffering from corneal irritation "must resist the inclination either to initiate or to increase the dosage of topically administered corticosteroids and thus induce or aggravate an existing pathologic situation."

Dr. Levy Named Chief Of Newly Established Lipid Metabolism Branch

Appointment of Dr. Robert I. Levy as chief of the Lipid Metabolism Branch, newly established within the National Heart and Lung Institute Collaborative Studies Program, was recently announced.

Dr. Levy has been with the Institute since 1963.

He has served since 1966 as head of the Molecular Diseases Branch's Section on Lipoproteins and since 1969 as chief of its Clinical Service.

Duties Defined

He will continue to hold down both positions in addition to his new post.

Dr. Levy will be responsible for the planning, development, and administration of a contract-supported research program directed toward the prevention of premature atherosclerosis through the identification and treatment of individuals rendered highly susceptible to the disease by blood-lipid abnormalities.

Elevated blood levels of cholesterol and other fatty substances, collectively called lipids, are, with few exceptions, strongly associated with increased risk of atherosclerosis and such consequences of the disease as acute heart attacks.

During recent years, research in the Molecular Diseases Branch and elsewhere has established that elevated blood lipids may be indicative of one of five different disorders — designated hyperlipoproteinemias Types I through V.

Each type differs from the others in clinical manifestations, risk for the patient, and responsiveness to therapy.

Research Results Listed

This research has also resulted in 1) effective means for differentiating among these lipid-transport disorders by lipoprotein analysis or other simpler techniques and 2) development of therapeutic diets, supplemented as necessary with specific lipid-lowering agents, that can completely correct or substantially improve the lipid-transport abnormality in nearly all instances.

The research program to be supported by the Lipid Metabolism Branch will be an extension of the clinical research program conducted over the past 6 years in more than 2500 patients by scientists and clinicians of the Molecular Diseases Branch.

The major thrust of the new program will be the establishment and support of a network of Lipid Research Clinics at medical centers and other research institutions to carry out targeted research designed to improve the detection and clinical management of hyperlipoproteinemias in the U.S. population.

In addition, the Lipid Research Laboratories will seek to improve the detection, diagnosis, and clinical management of hyperlipoproteinemias by providing assistance and guidance to practicing physicians.

These laboratories also plan to facilitate the collection and dissemination of new information on these disorders through central pooling of data and use of common protocols, and seek improvements in diagnostic and therapeutic procedures.

Dr. Levy will continue to serve as head of the Molecular Disease Branch's Section on Lipoproteins and chief of its Clinical Service as well as chief of the Lipid Metabolism Branch.
Ohio University Includes Computer Med. Program In Traditional Schedule

The Pilot Medical School, an experimental computer teaching program at Ohio State University College of Medicine, has been so successful that it will be incorporated into the University's regular instruction program.

As present, the program operates under a 3-year grant from the Division of Physician and Health Professions Education.

Because both faculty and students find the program satisfactory, and "the students feel they're getting a top-notch education," Ohio State will use a part of its own funds to support the program, even before the NIH grant is terminated.

Dr. Robert Gowyn, Stephen R. Waltman, and Bernard Becker at the Washington University School of Medicine in St. Louis, Mo.

It was supported in part by the National Eye Institute and National Institute of Neurological Diseases and Stroke.

Glucoma in young people is usually due to a recognizable abnormality of the anterior chamber angle of the eye, or is related to other ocular disease.

Recently, however, several young patients with visual loss resulting from the primary open-angle type of glaucoma were referred to the Ophthalmology Department of the Washington University School of Medicine.

Results Prompt Review

Their glaucoma was indistinguishable from that seen frequently in older persons.

This prompted the researchers to review the records of glaucoma patients from one referral practice to determine the prevalence and characteristics of primary open-angle glaucoma in patients under 35.

In analyzing all glaucoma patients, aged 10 to 35, they found that one-fourth had primary open-angle glaucoma. Of this group, there were twice as many males as females with this type of glaucoma.

A majority of the young patients were also nearsighted (myopic). These findings contrast with those in older patients with open-angle glaucoma where the sex ratio is about equal and myopia does not predominate.

The investigators note that primary open-angle glaucoma in younger age groups may be due to an undetected developmental defect of the anterior chamber of the eye. However, for practical clinical purposes, these young patients resemble adults with the same condition.

The researchers conclude that "whatever the basis of primary open-angle glaucoma in adolescents and young adults, it is obviously a disease entity that can cause marked visual disability before it is discovered." They emphasize the need for tomometry for all patients old enough to cooperate and especially for those with a family history of glaucoma.

Their findings were reported in Archives of Ophthalmology.

Dr. Bailey and Walker On NIAID's Adv. Council

Dr. Wilford S. Bailey and Duard L. Walker have been appointed to 4-year terms on the National Advisory Allergy and Infectious Diseases Council.

Dr. Bailey is Vice President for Academic and Administrative Affairs for Auburn University, Ala. He was on NIAID's Training Grant Committee from 1964 to 1969, and also served on the National Academy of Sciences committee studying veterinary medical education and research.

Dr. Walker is professor and chairman of the Department of Medical Microbiology at the University of Wisconsin School of Medicine.

In the past Dr. Walker's research interests in virology have included immunity to virus disease, latent infection, and persistent viral infection.

A study of young people is being conducted inquiring into questions in the endocrinology submodule; the computerized instruction allows students to set their own pace in medical studies.
Annual Artificial Kidney Contractors Conference Reviews Gains, Goals

On the fifth anniversary of the NIAMD's Artificial Kidney-Chronic Uremia Program, Dr. Benjamin T. Burton, program chief, reviewed the gains made.

Dr. Burton discussed the history of today's artificial kidneys and the goals the program will continue to work for at the recent annual Artificial Kidney Contractors' Conference.

With nearly 55,000 Americans dying each year from irreversible kidney failure, the Institute initiated, in 1965, a contract program to develop safer, more effective, and cheaper artificial kidney machines.

The program seeks to rehabilitate dialysis patients and to develop other treatment in end-stage kidney disease.

It also maintains a national registry of patients who use artificial kidney machines.

This program, currently funding about 70 projects, each January brings together over 150 key contractor members, consultants to the Program, and Institute staff.

At the latest conference, significant research results were exchanged.

Progress and future plans were examined in three areas: hardware and instrumentation; membranes, blood cannulas and biologically compatible materials, and toxic factors in uremia (as well as clinical studies on uremia and dietary management of chronic end-stage renal disease).

Developments highlighted this year were a new generation of compact artificial kidneys—the so-called "hollow fiber dialyzers," the size of a large flashlight—and a new, automatic home peritoneal dialysis system.

Study of Students May Decide Whether Emotional Stress Leads to Sore Mouths

People who are troubled by repeated sore mouths—such as fever blisters, canker sores, or trench mouth—all associate emotional stresses with the start of an attack. This relationship is a familiar one to doctors who treat any chronic illness, and it is always a puzzle to decide whether these stresses do actually precipitate attacks.

With the cooperation of some 200 graduate school students in research supported by the National Institute of Dental Research, a group of investigators from the University of Pennsylvania Center for Oral Health Research are collecting relevant health information to determine if psychological state is related to attacks of fever blisters and canker sores.

Students are ideal for such a study because many young men and women have trouble with such blisters and sores, and because, within a professional school community, afflicted students are members of a group uniformly exposed to many known stresses.

Study Infection Frequency

Initial results of these studies indicate that information obtained by a psychological questionnaire is related to the frequency with which students experience cold sores, canker sores, and other common infectious diseases such as cold.

It is also apparent that the states of feeling associated with an attack of canker sores are different from those associated with cold sores and illness.

This study is significant in that information about the student is collected before the sore mouth occurs, and so is not directly influenced by the students' feelings during an attack.

For the first time in the account has been a problem with previous studies which have collected information only when a patient reports for treatment of a sore mouth.

The center is one of five dental research institutes established in various parts of the country under grant support from NIDR to broaden and strengthen the scientific base for oral health research.

NEW GROUP (Continued from Page 1)

Dr. Charles McPherson
Chief of DRR Branch

Dr. Charles W. McPherson has been named chief of the Animal Resources Branch, Division of Research Resources.

He succeeds Dr. William H. Eyestone, who became a branch chief with the Division of Physical and Health Professions Education, BHME.

Dr. McPherson will be in charge of the Laboratory Animal Medicine and Primate Research Centers programs of the Animal Resources Branch.

Through these two programs the branch supports resources in institutions throughout the Nation where medical researchers can investigate human health problems, using laboratory animals.

A PHS commissioned officer, Dr. McPherson joined NIH in 1956.

He served for 10 years with the Laboratory Aids Branch of the Division of Research Services before coming to the branch as chief of the Laboratory Animal Medicine and Vivarium Services Section in 1966.

Dr. McPherson received his D.V.M. degree from the University of Minnesota in 1956, and also holds a M.P.H. from the University of California.

A member of several professional societies, he is president of the District of Columbia Veterinary Medical Association.

implemented by a program of special project grants to help achieve special goals, such as "improving planning and management, shortening curriculums, expanding enrollments, team training of physicians and allied health personnel, and starting Health Maintenance Organizations for local populations."

2) Establishment of Federal special support programs to help low income students enter medical and dental schools.

He recommended that the "scholarship grant program for these students be almost doubled—from $15 to $29 million."

Student Needs Considered

"At the same time, this Administration would modify its proposed student loan programs better to meet the needs of medical students," the President said.

3) A 50 percent expansion of affiliated health personnel training programs over 1971 levels, to $20 million, with $15 million of this amount devoted to training physicians' assistants.

The President also said that his Administration would expand nationwide its current MEDIHC program.
Screening for Hepatitis
Made Possible Through
NIH-Licensed Reagent

A reagent essential in screening donor blood for hepatitis is now commercially available.

The product, known as hepatitis-associated antibody (anti-Australia antigen human), has been licensed by NIH.

Federal standards designed to ensure its safety, purity, and potency were formulated by the Division of Biological Standards.

The first license was issued to Spectra Biologicals, Division of Becton, Dickinson and Company, Oxnard, Calif.

Annual Incidence High

Hepatitis constitutes a serious risk in the administration of blood and blood products. Transfused blood is known to cause more than 30,000 cases of overt hepatitis with 1,500 to 3,000 deaths every year in the U.S.

Since there are many subclinical cases, the annual incidence has been estimated to be as high as 150,000.

During the past 2 years, the identification of hepatitis-associated antigen has led to the development of effective screening tests to identify hepatitis-contaminated blood and to exclude it from administration to patients.

Although testing by presently available techniques does not eliminate the threat of serum hepatitis, approximately 25 percent of bloods containing hepatitis-associated antigen can be identified and excluded from medical use.

The reagent licensed for distribution by Spectra can be employed in two such tests—the agar gel diffusion test and the counter electromigration test.

The two screening tests differ in some particulars, but both are based on a reaction between hepatitis-associated antigens in the blood of infected donors and plasma containing antibodies directed against these antigens.

Other Reagents Considered

Additional reagents currently under consideration by DBS are expected to be licensed as testing and evaluation programs are completed.

It has been established that the agent of hepatitis can be transmitted by the transfusion of whole blood, plasma or plasma components.

Transfusion of blood or derivatives containing hepatitis-associated antigen results in a high rate of clinical hepatitis correlated with the appearance of the antigen in the serum of the recipient.

Hepatitis-associated antigen has been found present for as long as 3 years in the serum of carriers, but it has also been reported that in most patients with clinical diagnosis of serum hepatitis the hepatitis-associated antigen disappears several months following the acute phase of the disease.

Although limited sensitivity of currently available methods for detecting the antigen or virus makes it possible that hepatitis-associated antigen in all blood and blood products, thousands of cases of hepatitis could be prevented annually by presently available tests.

All Effects of Total Arrest of Circulation
On Central Nervous System Reappraised

Despite the presence of deep and lasting coma, patients who have suffered severe lack of oxygen in their tissues (as might occur in circulatory arrest) should still be considered salvageable if the pupils react or electrical activity of the brain shows signs of recovery.

This is the conclusion of scientists in the Laboratory of Perinatal Physiology, National Institute of Neurological Diseases and Stroke, following a study of 89 monkeys.

According to Dr. Ronald E. Myers, chief of the laboratory, their findings indicate that the central nervous system can survive up to 4 minutes of total circulatory arrest with considerable recovery.

Total Recovery Possible

Although the more severely insulted monkeys required periods of up to 30 days to fully recover, the scientists, according to Dr. Myers, were impressed by the severity of deficits from which total or near total recovery was possible.

In general, the results showed that the animals tolerated up to 20 minutes of arrest, with only minor neurological impairment in certain cases. Some of the animals tolerated up to 24 minutes of total circulatory arrest with considerable recovery.

In addition, the monkeys gradually began to show signs of recovery through pupillary constriction, onset of gasping, return of cardiac reflexes, and ability to breathe spontaneously, sitting up unassisted, and later actively moving around their cages.

Results showed that the operation of clinical outcome exhibited by the animals, even when they had undergone similar periods of circulatory arrest. This may have been due to factors other than length of circulatory arrest, according to Dr. Myers.

Low blood pressure persisting through the post-arrest period after releasing the blocked vessels, for example, was found to greatly increase the neurological damage and to completely alter the pattern of brain tissue damage produced.

This work, recently reported by Dr. Myers with Dr. James R. Miller, now at the New York Neurological Institute in New York City, is a part of a larger study in the Laboratory of Perinatal Physiology to determine how prolonged oxygen deprivation affects the central nervous system of both infants and adults.

R&W Schedules Initial Meetings
For Organizing Softball Teams

NIH's Recreation and Welfare Association is urging softball enthusiasts to organize now.

The Men's Fast Pitch Softball League meets March 4; the Co-Rec Softball League meets March 8. Both meetings are scheduled for noon in Bldg. 36, Rm. 2A-09.