**Patent for New Method To Control Mosquitoes Is Assigned to HEW**

A patent for a new technique of controlling mosquitoes by sterilization has been awarded to a National Institute of Allergy and Infectious Diseases' grantee at the University of Notre Dame.

Dr. George B. Craig, Jr., the grantee, working with an associate, Dr. Morton Fuchs, sterilized female mosquitoes with a hormone extracted from the accessory gland of males mosquitoes.

Patent No. 3,450,816 has been assigned to HEW, which will grant royalty-free, nonexclusive licenses.

**Insecticides Toxic**

For many years, insecticides have been the most successful means of destroying insects that are disease carriers. In recent years, the toxic effects of these chemicals on both man and his environment have become of increasing concern.

The problem is further complicated by the emergence of insecticide-resistant strains of insects. These insects require stronger and more toxic compounds for eradication.

Dr. Craig's patent describes both (See PATENT, Page 7)

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**NIAID Employees, Families Join Efforts To 'HELP' Pakistan Cyclone Survivors**

Thousands of homes on Manpura Island—as well as on the rest of the Ganges River Delta of East Pakistan—were destroyed by the Nov. 12 cyclone. Survivors attempted to erect temporary reed and thatch homes such as these until reconstruction could begin.—U.S. Agency for International Development Photos.

By Krin Larson

To the survivors of last November's devastating cyclone on Manpura Island in East Pakistan, HELP has become a continuing way of life.

HELP—the Heartland Emergency Lifesaving Project—developed out of the concern of a group of Pakistanis and Americans in Dacca, the capital of East Pakistan.

Many of the HELP volunteers are NIAID employees and their families at the Pakistan-SEATO Cholera Research Laboratory (PCSRLL) in Dacca.

However, what began as an attempt to provide immediate relief to survivors through voluntary private contributions is now evolving into a long-term plan for redevelopment that has gained the support of the Pakistan and U.S. Governments.

Manpura Island, about 10 miles long and 2 miles wide, lies at the mouth of the Ganges River on the Bay of Bengal.

Because of its location on the coastal lowlands, the area is vulnerable to cyclones, monsoon floods, and other natural disasters. Despite the great fertility of the soil, it is a very poor area.

When the flood waters accompanying last November's cyclone receded, 50 to 60 percent of Manpura's population was gone.

The cyclone came at harvest time when the normal population was augmented by migrant workers, and losses ranged from 14,000 to 19,000.

Many survivors suffered from the "cyclone syndrome"—severe abrasions, similar to third-degree burns, on the forearm, upper arm, inner thighs, and chest—as a result of clinging to a palm tree for hours while being tossed about by the flood waters.

Fortunately, an early fear—the spread of cholera—proved to be unfounded.

Besides the population loss, most shelter on the island was gone, as were most of the cattle used for farming and harvesting, and nearly three-fourths of the rice crop.

Because the areas were inaccessible and communication was lost, it was several days before the Paki-

(Continued on Page 7)

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**Dr. MacLean Receives Special APPA Award**

Dr. Paul D. MacLean, NIMH, recently received a special award from the American Psychopathological Association. He was honored for his scientific contribution to the field of brain function and sexual behavior.

Dr. MacLean is with the Section on Limbic Integration and Behavior, Laboratory of Neurophysiology.

In addition to a $500 prize, Dr. MacLean received testimonials from prominent scientists that were presented to him by Dr. Milton Greenblatt, president of the association, at its annual meeting in New York.

The topic of this year's meeting was "Critical Issues in Contemporary Sexual Behavior."

The first part of the paper presented by Dr. MacLean covered a summary of findings reported earlier concerning sexual manifestations in animals resulting from specific stimulation of the limbic system in the old mammalian portion of the brain.

He then discussed an innate sexual display among squirrel monkeys both as a mechanism of challenge among males and of mating.

In his concluding remarks Dr. MacLean discussed the implications of the experimental work as it relates to human behavior.

(See PATENT, Page 7)

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**Friends Assured Of Leakey's Recovery From an Accident**

Great disappointment was the reaction to the cancellation of Dr. Louis Leakey's scheduled appearance on Feb. 3.

Just prior to leaving for his trip to the United States, Dr. Leakey was hospitalized in Nairobi, Kenya, as a result of an accident.

While there has been reassurance that Dr. Leakey is making a most satisfactory recovery, his future plans are of necessity indefinite.

(See LETHAL DRUGS, Page 8)
Dr. D. F. Johnson Elected Head, Board of Directors Federal Credit Union

Four senior medical students arrived at NIH this month to participate in the recently established Clinical Electives Program at the Clinical Center.

These first students are: Bruce W. Furlow, George Washington University; Thaisis Goodwin, Albany Medical College, and F. Simmons Patterson and Lewis Yeces, University of Pennsylvania.

4 Senior Med. Students Participating in Program Of Clinical Electives

Dr. David F. Johnson has been elected President of the NIH Federal Credit Union Board of Directors. Dr. Johnson is with the National Institute of Arthritis and Metabolic Diseases in the Laboratory of Chemistry, Steroid Section.

He has been with NIAMD, in the same laboratory, since he came to NIH in 1952. Dr. Johnson received a Masters degree in Chemistry from Howard University, and a Ph.D. in Biochemistry from Georgetown University.

Other members serving on the Board of Directors as officers are: Dr. Harley G. Sheffield, vice-president; Herbert C. Christoferson, treasurer, and Dr. Norman E. Sharpless, secretary.

The Board of Directors also includes: Dr. Jeannie L. Brand, Helene Devay, Ota Ducker, Doris Parkinson, and Walter H. Magruer.

There are over 26,000 credit unions in the U.S. The NIH Credit Union, with over 11 thousand members, is numbered among the top 150 of the largest in the country.

Dr. Johnson has been with NIAMD, and with the same laboratory, since 1952, the year he came to NIH.
Dr. Roger O'Gara Dies, Noted Cancer Researcher

Dr. Roger W. O'Gara, 55, National Cancer Institute physician and research pathologist, died of a heart attack on Jan. 25. He was stricken as he walked to his laboratory in the Clinical Center.

Dr. O'Gara began his research career in 1937 as a technician in the Office of Field Investigation of Cancer at the Harvard University School of Medicine.

He moved with this PHS unit in 1938 to the Gibbs Laboratory at Harvard College, and a year later to the newly completed facilities of NCI in Bethesda.

Dr. O'Gara then started night classes at George Washington University. Both work and studies were interrupted during service as a medical corpsman in the Aleutians from 1942 to 1945.

He returned to GW as a fulltime student, receiving his B.A. degree in 1948 and his M.D. degree 3 years later.

After his internship, Dr. O'Gara returned to NIH in 1952 as a pathologist with NIAMD. A year later he joined the NCI Laboratory of Pathology.

Through NCI Dr. O'Gara received a 3-year training assignment in pathology at the University of Pennsylvania. He rejoined the NCI staff in Bethesda as a research pathologist in 1956.

Among Dr. O'Gara's research interests was the development of improved laboratory animal techniques for detecting chemical cancer-inducing agents related to cancer in man.

In collaboration with his wife, the late Dr. Margaret G. Kelly, and Dr. Richard H. Adamson of NCI, he was the first investigator to succeed in producing cancer in monkeys with chemicals—nitrosamine compounds.

Significantly, some of the liver cancers thus induced could be transplanted to the brains of other monkeys, a finding which led to the use of this technique in testing various methods of brain tumor treatment.

Dr. O'Gara's interest in naturally occurring chemical carcinogens led to studies of the plants eaten by natives in areas of high esophageal cancer incidence, notably in Curaçao and in Africa.

Research indicated that several of these plants and their derivatives produced cancer when injected into laboratory rats.

Dr. O'Gara also showed that a cancer-inducing agent extracted from ceyad palm nuts can penetrate skin wounds and produce cancer in other parts of the body.

Dr. O'Gara investigated the high incidence of esophageal cancer in natives living in Curaçao and in Africa. He also showed that an agent from palm nuts can penetrate skin wounds and produce cancer in other parts of the body.

Letter From Former CC Patient Thanks All Employees for TLC, Blood Donations

Often, the Clinical Center receives letters from former patients thanking a particular physician, nursing unit, or department for the excellent medical and hospital care that had been provided during their stay here.

But the following letter was addressed to all NIH employees.

Dear Employees of the Clinical Center and NIH: I'm writing to thank you for helping save my life. I was in the Clinical Center a few months ago for heart surgery. As it turned out, I had four operations and a lot of bleeding.

By the time I left 2 months later, they had given me 150 units of blood. They tell me that's a lot more than usual, but without it I would have needed another operation. Frankly, I was pretty weak by then and I'm sure glad I didn't need another operation.

So I want to thank not just the fine doctors and nurses and all the other people who took care of me, but also all of you who donated blood.

I'm happy to say I'm back at work again. I've been with this company for 17 years and I was really worried about losing my job because of my condition. But they say I'm fine now and can do my work. My family and I cannot thank you enough. Sincerely yours, Frederick Lusky.

When the letter-writer, a 34 year old factory worker from Ohio, was admitted to the Clinical Center last October, he was overweight and in poor general health.

He had angina pectoris and mild aortic insufficiency and was scheduled for an operation within a week.

A few days before surgery, Rodney Douglass, CC Blood Bank, consulted a computer printout of donors with Mr. Lusky's type of blood.

Since every fifth unit of blood transfused to Clinical Center patients must be fresh, it is necessary to coordinate donations with the surgical schedule.

Ordinarily an operation like Mr. Lusky's requires 20 units of blood and the Blood Bank planned accordingly. However, during the next 2 months, Mr. Lusky ultimately received over 140 units.

In surgery, two arteries were lowered from Mr. Lusky's chest wall and implanted in his heart to take over for the defective coronary arteries.

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In surgery, two arteries were lowered from Mr. Lusky's chest wall and implanted in his heart to take over for the defective coronary arteries.

Undergoes Further Surgery

During the operation he was given 17 units of blood. Unfortunately he suffered post-operative bleeding and that same day was returned to the operating room for removal of the clotted blood from his chest.

The hemorrhaging artery was repaired, and again Mr. Lusky received 14 units of blood.

His condition was satisfactory until a few days later when bleeding from the upper gastrointestinal tract necessitated transfusion of 18 units of blood.

In the operating room, his physician discovered an acute ulceration in the duodenum with brisk arterial bleeding.

The ulcer was oversewn to contain the bleeding, and a pyloroplasty and a vagotomy were performed in an effort to avoid future ulceration. This time only 5 units were necessary.

After using the data-phone to log in with the computer in Bldg. 12A, computer technician Charity S. Storr operates Wybur, a computer terminal, to request a printout of donors with Mr. Lusky's type of blood.

In the CC Blood Bank's cold room, Edward Kessey, medical technologist, selects units of blood to be cross-matched in preparation for Mr. Lusky's operation.

Candidates for Program in Financial Management Receive on-Job Training

Qualified applicants are invited to apply for the 1971 Financial Management Intern Program. They will be trained for eventual positions as financial managers and public administrators, according to a recent announcement by the HEW Office of the Assistant Secretary, Comptroller, James B. Cardwell.

Candidates must have a bachelor's degree or equivalent in a field other than accounting. They must also have a Federal Service Entrance Examination rating, or proof of their scholastic ability.

Women and minority group employees who meet requirements for the Management Intern Program are especially encouraged to apply.

Interns receive one year of graduate training at an accredited university and one year of on-the-job training at downtown HEW.

The primary purpose for the graduate study, which may lead to a master's degree in Public Administration, is to provide the technical background that is essential for financial management.

Assignments Rotated

During the second year of the Program, rotating assignments in audit, budget, finance, and grants administration provide the foundation for an effective financial management career in HEW.

Applicants may qualify for this Program at the GS-5 or GS-7 level, depending on length of Federal service. During their internship selected candidates become employees of the Office of the Assistant Secretary, Comptroller, and must sign an agreement to remain with HEW for 3 years after completing their academic training.

The proper application forms and a list of supporting documents may be obtained from 1/D/B personnel offices. Additional information regarding the Program may be had by calling the NIH Office of Financial Management, Ext. 62567.
NINDS Invites NIH Employees to Tour Lab

In his office Dr. Sever (r) discusses plans for the new lab with Dr. David Fuccillo.

Jerry Atkinson cares for animals housed in the isolation units which were designed by Dr. William London.

Dr. Sever, Helen Krebs, and Dr. Fuccillo. Note the special air ducts overhead.

Carol Nacy (l) puts on lab coat in women's bathing and dressing room. Lab workers are outfitted in special uniforms and change to this clothing kept at work. In lab at right she is removing material from one of the large freezers which open off many of the laboratories while (l to r) Anne Meth, Sandra Fitzgerald, and Anita Ley conduct serum studies.

Next Friday, Feb. 19, from 1 to 5 p.m., all NIH employees are invited to an open house tour of the newly completed NINDS laboratories for the study of infectious diseases in Building 36. After Friday, the 5th floor, C-wing corridor will be completely closed off permanently—except to “authorized personnel.”

The laboratories belong to the Section on Infectious Diseases, Perinatal Research Branch, National Institute of Neurological Diseases and Stroke. The section is headed by Dr. John L. Sever.

It will study infections of the fetus and newborn child, such as cytomegalovirus, herpes virus, coxsackie viruses, papova viruses, hepatitis, and neurological diseases of a possible viral origin.

The section’s isolation is for two reasons, according to Dr. Sever.

“We are, of course, preventing any of our materials from getting out into the building, and we are also insuring that no ‘outside’ con-
Open House Tour
Laboratories for the Study
of Infectious Diseases
6, 5th floor, C wing
February 19, 1971
1 to 5 p.m.

ὸlyn Holstein
taminants will come in," he said.

Safety features include:
• The entire corridor and labora-
tories will operate under negative
air pressure so that no air from
within the corridor can escape into
the outer halls.
• The section will have its own
liquid waste system—separate from
the rest of the building’s. Sewer-
age will be treated, run through
sealed (welded) pipes and auto-
claved (sterilized) before going in-
to the sewer system.
• Floor, walls, and ceiling are
completely sealed, all pipes are
welded.
• The section has complete ani-
mal holding and operating equip-
ment.

“If anything, we are overengi-
neered for safety,” Dr. Sever said.
“We expect that the laboratory will
be a model for future laboratories
dealing with infectious materials.
“The open house is to inform
others of our unique set-up, and
special safety arrangements.”

Margaret Ashworth feeds a cuddly one-day-old monkey.

Kenneth Kirby (l), who is in charge of Bldg. 36’s engineering system, inspects filtered air exhaust chute with assist from Mark Summers. These air ducts on the roof provide special filtration of all incoming and exhausted air.
Dr. Bloch Joins Nursing Staff
As an Educational Consultant

Dr. Deris Bloch has joined the Division of Nursing, BHME, as a consultant in nursing education and community nursing practices.

Previously, Dr. Bloch served as nurse-g research consultant with the Regional Office of the World Health Organization at Manila.

She was graduated from Mt. Holyoke College in 1951 and earned a Master of Nursing degree from Yale University in 1954. Dr. Bloch received her Masters and Doctoral degree in public health from the School of Public Health at the University of California.

LETTER

(Continued from Page 4)

of blood were transfused.

Five days later bleeding increased. Mr. Lusky was given another 20 units of blood and scheduled for exploration of the abdomen. This time the bleeding site was not readily accessible.

One solution was the Whipple procedure—an operating method which would have involved removal of the duodenum and all or part of the pancreas. This procedure may have meant risking complications including diabetes and continuous digestive problems.

The surgeons elected to perform a partial gastrectomy, removing the acid-secreting part of the stomach, and to continue massive blood support in the hope that the bleeding would ultimately stop.

Such a decision was possible only because the Blood Bank staff felt assured that NIH employees would be willing to provide an adequate blood supply.

Meanwhile Mr. Douglass and other Blood Bank staff members continued calling potential donors. During the operation Mr. Lusky was given 16 units of blood and within the next 4 days required 40 more.

Fortunately, the bleeding did stop, but, before his discharge on Dec. 1, he had received another 15 units, making a total of over 140 units.

Eventually, after several weeks of rest, Mr. Lusky was able to return to his job.

Thurman B. Irby, a custodian with the Plant and Office Services Branch, FDA, recently received a Special Achievement $150 cash award. Awarded to the National Library of Medicine for the past few years, Mr. Irby was cited for being consistently conscientious and friendly as well as for displaying initiative.

Yale University in 1954. Dr. Bloch received her Masters and Doctoral degree in public health from the School of Public Health at the University of California.

New NIH/NIMH Chapter
In Federal Association To Meet February 24

The NIH/NIMH Chapter of the Federal Professional Association will be established at a meeting on Wednesday, Feb. 24, at 11 a.m. in Bldg. 31, Conference Room 1A-17.

Dr. Edwin D. Becker, NIAMD, chairman of the Organizing Committee, announced the meeting.

FPA's Executive Committee authorized the formal organization of the chapter. Dr. Becker noted that the committee "looks forward to valuable suggestions for FPA activities and policies from this important bastion of Federal science."

Two NIH/NIMH members are already serving on FPA's national Executive Committee. They are Dr. George J. Cosmides, national secretary, and Mel White, editorial director and editor, FPA Newsletter.

Personnel who have formally applied for membership may attend Wednesday's meeting and will have full voting privileges.

For further information and application blanks call Dr. Becker, Ext. 62194, Dr. Cosmides, Ext. 67707, or Mr. White, Ext. 66011.

Axelrod, Nobel Laureate, Honored by Alma Mater

Dr. Julius Axelrod, Nobel Laureate, was awarded an honorary Doctor of Laws degree this week by the George Washington University.

It was from this university that Dr. Axelrod received his Ph.D. in Pharmacology in 1955, the year he joined the National Institute of Mental Health. Until that time he had been associated with the research programs of the National Heart Institute.

Dr. Axelrod shared the 1970 Nobel Prize for Physiology or Medicine with Dr. Ulf von Euler of Sweden and Sir Bernard Katz of England for research on neurotransmitters.

Research on Brain Tumors Described in Pamphlets Issued by 2 Institutes

Research approaches followed by the National Cancer Institute and the National Institute of Neurological Diseases and Stroke on the problem of brain tumors—which cause nearly 8,000 deaths in the United States each year—are described in publications issued simultaneously.

Booklet Easy to Read

Brain Tumors and Spinal Cord Tumors, Hope Through Research, is an easy-to-read booklet on current research and treatment of benign and malignant tumors of the central nervous system, published by NINDS.

The NCI publication, Research on Malignant Diseases of the Brain, is a more detailed report on detection and treatment of brain cancers.

Various types of benign and malignant tumors of the central nervous system are discussed in both books.

Early diagnosis is important for the successful treatment of brain tumors, according to the new publications. They also discuss surgery, radiation therapy alone or in addition to surgery, and the more recent use of radioisotopes.

Nationwide cooperative studies coordinated by NCI and NINDS are focusing on finding new drugs and new techniques of drug administration.

Other cooperative studies described in the booklets concern ways to enable cancer drugs—which are normally excluded by a protective barrier—to enter the brain. Both publications describe a mechanism already developed for bypassing this barrier.

For single free copies of the pamphlets contact the Research Information Branch, National Cancer Institute, NIH, Bethesda, Md. 20014.

Softball Leagues Now Forming, Employees Asked to Call R&W

The R&W Men's and Co-Rec Softball Leagues are now forming.

Anyone interested in entering a team in either the Men's fast-pitch league or the Co-Rec League should call the R&W office, Ext. 66061, and leave his name, extension, and R&W membership card number.

NII Blood Donors Needed
To Meet Needs of Patients

The Clinical Center Blood Bank reports that 517 units of blood were received from NIH donors in January, and CC patients received 1,541 units.

To make an appointment to donate blood, call the Blood Bank, Ext. 64509.

Vernon E. Taylor (r) receives a gift, presented by Arthur Moore, acting chief of the Medical Arts and Photography Branch, DRS, at a party in his honor. A former chief of the Photography Section and more recently photographic consultant, he has been at NIH 23 years. Vern, an avid yachtsman, plans a 6-month Caribbean cruise on his 35-foot ketch, "Melody."

Latest Participants in NIH Visiting Scientists Program Listed Here

1/25—Dr. Ione Polacow, Brazil, Cell Growth Regulation Section. Sponsor: Dr. Dolph Hatfield, NCI, Bldg. 37, Rm. 3D07.

1/26—Dr. Ingeborg Hanbauer, Austria, Laboratory of Clinical Science. Sponsor: Dr. Irwin Kopin, NIMH, Bldg. 10, Rm. 2D46.

2/1—Dr. Sankar L. Adhya, India, Laboratory of Molecular Biology. Sponsor: Dr. Ira Pastan, NCI, Bldg. 10, Rm. 10B09.

2/1—Dr. Renne Ray-hung Chen, Taiwan, Section on Physiological Chemistry. Sponsor: Dr. John J. Pisano, NHLI, Bldg. 10, Rm. 7D13.

2/1—Dr. Hidehiko Kumagai, Japan, Laboratory of Biochemical Pharmacology. Sponsor: Dr. Edith W. Miles, NIAMD, Bldg. 4, Rm. 109.

2/1—Dr. Yukitaka Miyachi, Japan, Reproduction Research Branch. Sponsor: Dr. Moedtner B. Lipshtet, NICHD, Bldg. 10, Rm. 12N204.

2/1—Dr. Amin Mohammed Suria, Pakistan, Laboratory of Chemical Pharmacology. Sponsor: Dr. James R. Gillette, NHLI, Bldg. 10, Rm. 8N118.

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NIAID EMPLOYEES HELP

(Continued from Page 1)

PAKISTANI SURVIVORS

International Development) agreed to contribute $2 for every $1 collected by HELP.

With these funds, HELP plans to execute a redevelopment project on the island, as described in a recent letter from Dr. Jon Rohde, PSCRL:

"Volunteer specialists in agriculture, water resources, health, road building, and education have joined HELP to assist in formulating the Manpura Plan, a multidisciplined outline for rehabilitation and development of the island.

"This plan supports the principle of self-help and group cooperation in the construction of dikes, new houses, schools, roads (the island

Bibliography of Scientific Papers on Marijuana
Published by University

An annotated listing of selected scientific papers on marijuana that have been published from 1924-1970 was recently issued by the Brain Information Service (BIS), University of California at Los Angeles.

The book, Marijuana: A Selective Bibliography, was published by BIS operating under contract from the National Institute of Neurological Diseases and Stroke.

According to the editor, Dr. William H. Rickles, Jr., UCLA Medical School, the bibliography includes such topics as the botany and chemistry of marijuana and hashish, sociological and legal issues, and clinical studies and case reports.

Summaries of each paper give the reader enough of an idea of the author's findings to enable him to decide if a reading is worthwhile. BIS is part of an information network set up by NINDS to help find pertinent articles to aid researchers and clinicians interested in the nervous system.

The bibliography may be purchased for $3 from the Institute Publications Office, BIS, UCLA Center for Health Sciences, Los Angeles, Calif. 90024. Checks may be made out to the UCLA Regents.

Booklet on Periodontal Disease Discusses Causes, Prevention

A new publication, PERIO, contains facts on periodontal disease, one of the most widespread ailments known to man.

The brochure discusses what the disease is, how it is treated, and how it can be prevented.

Single copies may be obtained without charge from the Office of Information, Division of Dental Health, BHME, Federal Bldg.


Dr. Jon Rohde, PSCRL (seated right), and U.S. AID Deputy Administrator, Maurice Williams (I), discuss the relief project at Manpura with Pakistani volunteers.

Dr. William D. Terry was recently named assistant chief of NCI's Immunology Branch. He began his association with NIH in 1961 under a training grant with the Rheumatic Disease Group at the University of California School of Medicine, S. F. In 1962 he was appointed research associate in NCI's Immunology Section, Diagnostic Research Branch.

Proceedings of Internat'l Symposium on Trauma Held in 1970 Published

Recently published Proceedings of the International Trauma Symposium held in Washington, D.C. in May 1970, puts into perspective the physical, social, and economic costs of trauma.

The proceedings of the symposium, sponsored by the National Institute of General Medical Sciences, cover the 3 days of discussions, in general sessions, panels, and 14 workshops.

Reports summarize discussions on the reaction of the body as a whole to injury, the effects of injury on the lungs, endocrine and nervous systems, and regional metabolism of kidneys, liver, and other organs.

The hard cover edition of the Proceedings, 190 pages, illustrated, at $12 a copy, may be purchased from Williams and Wilkins Co.

PATENT

(Continued from Page 1)

the sterilization method and the method of extracting and purifying this hormone, which is called "matrone."

The hormone is extracted by centrifugation of the gland in a saline solution or from whole male bodies which have been freeze-dried. The hormone can be lyophilized and stored.

Sterilization of females, which is lifelong, can be accomplished either by injection or by feeding.

The hormone can also be added to the food of mosquito larvae or sprayed on surfaces where young mosquitoes feed.

### NIAID EMPLOYEES HELP

(Continued from Page 1)

stani Government and the world knew the extent of the disaster.

When the serious relief problem was realized, some PSCRL employees and their wives—Richard Guerrant, Lincoln and Martha Chen, George and Peggy Curlin, and Jon and Cornelius Rohde—as well as Pakistani nationals and other Americans in Pakistan, decided to bring emergency relief to a village of about 500 people.

Food, Clothing Distributed

They collected more than $8,000 in Pakistan currency in Dacca and from friends in the United States and with this purchased 4 tons of milk, rice, and clothes to distribute.

On Nov. 21, the PSCRL men and other volunteers arrived in Chittagong. The next day they moved on to the large island of Hatia, and when they learned that no relief had reached Manpura Island, they chose that island for their work.

Their field report describes what they found at Manpura the next morning: "The stench is at first unendurable with corpses widely scattered. Good water up to 4 feet from the bank, and wide open fields will make a good drop area."

"Tried to get further south but found coast shoals up anduccarevess every few feet."

By sunset, they had distributed clothes, utensils, rice, matches, mustard oil, kerosene, and a tin lamp to families and milk to the children, serving over 1,500 people.

They also tended to those needing medical attention.

Planes Sight Red Crosses

The next day planes and helicopters began sighting the red crosses on white sheets displayed in the fields and dropped more supplies. A distribution system was set up using a different line for each item.

With each line policed by local citizens almost 4,000 people were served that day. Eventually, they established three relief centers 6 miles apart.

While the men worked on the island, their families were busy in Dacca and Chittagong securing supplies and arranging for planes and helicopters to airlift them to Manpura.

By their combined efforts, and with the cooperation of West German, French, Pakistani, and American pilots, the Manpura survivors were soon regularly receiving the bare necessities of life.

As of Dec. 21, the group's expenses amounted to about $80,000. Actually because many items were donated, the value of the goods distributed was much higher.

Following the group's early success, the American Government (represented by the Agency for International Development) agreed to contribute $2 for every $1 collected by HELP.

With these funds, HELP plans to execute a redevelopment project on the island, as described in a recent letter from Dr. Jon Rohde, PSCRL:

"Volunteer specialists in agriculture, water resources, health, road building, and education have joined HELP to assist in formulating the Manpura Plan, a multidisciplined outline for rehabilitation and development of the island.

"This plan supports the principle of self-help and group cooperation in the construction of dikes, new houses, schools, roads (the island..."
Lethal Drugs (Continued from Page 1)

conscious and there may be no indication of the drug imbibed, and the amount.

Recently, Drs. Henry M. Fales and George W. A. Milne, National Heart and Lung Institute, Laboratory of Chemistry, reported a technique that, usually within an hour, can determine which drug or drugs the patient has ingested, and approximately how much he took.

May Help Locate Drug

This system may also help to determine whether the drug is still mainly in the patient's stomach or in his bloodstream.

Their method, developed in collaboration with Norman Law, of Suburban Hospital, uses gas chromatography plus mass spectrometry to analyze a sample of the patient's stomach contents and/or blood.

The gas chromatograph rapidly separates drugs from one another and also from normal components of biological fluids.

As the pure compounds escape, one by one, from the column of the gas chromatograph, they enter the second part of the instrument; the mass spectrometer.

Here the compounds are bombarded by electrons to produce a complex signal, called the mass spectrum, that provides a very precise "fingerprint" of the drug in question.

With the help of Virginia Aan­dahl, Division of Computer Research and Technology, the NHLI scientists have collected the mass spectra of 80 of the most toxic common drugs and stored them in a computer.

Computer Searches List

The mass spectrum of the unknown drug is read by the computer which then searches through this list to find a drug with the same spectrum or fingerprint.

The area that, within about one hour, the physician is told what he needs to know about the drug taken by his patient. Now he can begin treatment to remove the drug from the patient's system.

The identity of the drug determines the treatment. In some cases, the use of an artificial kidney may be necessary. In other cases, dialysis of the peritoneal sac or intestinal wall may be the treatment.

With some drugs, however, such serious surgical procedures are either unnecessary or ineffective and the patient must rely upon his own system for detoxification.

The NHLI investigators reported their findings at the Middle Atlantic Regional Meeting of the American Chemical Society.

1972 NIH Budget Summary

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mill; allied health, $26.5 million, and program direction and manpower power, $6.2 million.

Fiscal 1972 funds for the National Library of Medicine—$21.5 million—propose $15.4 million for direct operations, including library operations, toxicology information, the NMAC, and Lister Hill Center. Medical library assistance grants account for another $6.1 million.

Engineering Scientists Demonstrate Terminal For Patient Monitoring

A new computer display terminal for on-line patient monitoring is adding several dimensions to biomedical research through its low cost and unique combination of features.

Engineering scientists from two universities, working under grants from the Biotechnology Resources Branch, Division of Research Resources, recently demonstrated this computer display terminal.

Known as the General Purpose Graphics Terminal, it was developed at Loma Linda University. Currently, the University of Iowa is building eight of the display terminals.

The computer display terminal was designed so that it could be built from components costing less than $7,000, about half the price of a commercially built model.

Special Features Cited

Some of the special features built into the terminal are character and vector generators for easy building of letters, numbers, and graph axes on the display, and a "refresher" to keep the picture steady while the computer analyzes test results.

These features allow the researchers to cut down programming time and reduce the computer's load so scientific data and tests can be analyzed more quickly.

Another feature is a direct lead-in from the patient to the computer through the graphics terminal. This allows the display to show preliminary results of tests such as pulmonary function and electrocardiogram, while the computer does a complete analysis and then updates the display.