

BIOTECHNOLOGY

**Electronic Medical
Diagnosis System in Use**

See Front Cover

► THE MASSACHUSETTS Institute of Technology and three Boston hospitals have begun operating one of the world's first remote electronic medical diagnostic and data processing systems.

The project, directed by the MIT neurological section, makes use of a General Electric 225 computer.

Linked by telephone lines with the three hospitals, the GE-225 transistorized computer in the MIT neurological laboratory processes information from electrocardiograms as well as from eye movement and hand motor coordination studies of hospital patients.

Seen on this week's front cover is Deveaux Murphy, MIT research technician, wearing special glasses used to study eye movements at the Massachusetts Eye and Ear Infirmary. As the eyes of the technician follow a moving target, a photoelectric cell built into the glasses sends information on his eye movements directly by wire to the GE-225 computer at MIT.

Data is automatically processed, analyzed and returned to the hospitals where it is electronically presented in graph and other forms for use by physicians.

Electrocardiograms are sent to the GE-225 from Massachusetts Memorial Hospital and information on hand motor coordination is sent for processing and analysis from Massachusetts General Hospital.

Bringing this service to various New England medical facilities will make laboratory facilities such as electrocardiograph diagnosis available to remote areas where such clinical aid is often difficult to obtain.

• Science News Letter, 85:127 Feb. 22, 1964

BIOCHEMISTRY

**Diseases Mimicked
By Drug Reactions**

► REACTIONS THAT MIMIC various diseases may be produced by modern drugs, certain food additives and environmental contaminants.

Drs. Thomas H. Sternberg and Stanley M. Bierman of the University of California, Los Angeles, Medical School's dermatology division, found that drugs possess a remarkable capacity to induce disorders which simulate collagen diseases, cancer of the lymph glands, congenital diseases of the skin and light-sensitive skin disorders.

Most of these reactions are reversible upon withdrawal of the offending agent.

Lupus erythematosus-like illnesses, which are characterized by arthritis and serious systemic manifestation, have resulted from some high blood pressure drugs, antihistamines, tranquilizers and antibiotics.

Anticonvulsant and antituberculosis drugs have produced reactions which closely resemble cancer of the lymph glands. Aniline dyes in ink used to stamp diapers resulted in a disorder of the blood of newborn

infants which made it appear that they were "blue babies."

An epidemic simulating a virus disease with skin eruption involved an estimated 100,000 individuals in Holland. It was found to be caused by an emulsifier in margarine.

In Turkey an epidemic of porphyria cutanea tarda, a skin disorder characterized by a violent, sun-sensitive eruption with blisters, occurred following eating of fungicide-treated wheat, originally intended for planting.

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MEDICINE

**Patients Isolated
In Plastic Room**

► HOSPITAL PATIENTS can now be completely isolated from germs, no matter how many people are in the room. A new plastic "room," developed by a Stanford University physician, keeps the patient uncontaminated in a transparent, plastic cover through which blood can be drawn and shots given. Meals are received through lock equipment like that used in submarines.

A reverse isolation "transportation bag" is used when transporting the patient to another part of the hospital. Developed by Dr. Charles Beal, assistant professor of preventive medicine at Stanford University School of Medicine, the bags and rooms can be thrown away after use.

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*Nature Note***Skunk Cabbage**

► ONE of the first heralds of spring is the impudent, ugly skunk cabbage. Before the first robin, before the pussy willows, before the frost is fairly out of the ground, this hardy purple-nosed adventurer pushes up into the thin sunlight of late winter.

Its pointed, blotched and fleshy hood pokes its nose through a thin sheath of ice or mud in fields, swamps or woods, wherever there is an abundance of soil water. The hood encloses a ball of flowers that have a rather strong odor. The big lush leaves come much later, filling the spaces between the tree trunks during the breathless days of summer.

The leaves of the skunk cabbage, reminiscent of the plant's namesake, never release their defensive weapon unless molested. When the leaves are crushed or trampled, the plant gives off an odor, suggestive to some people of a skunk and to others of a mustard plaster mixed with a raw onion.

For all its plebeian and somewhat vulgar ways, the skunk cabbage, *Symplocarpus foetidus*, comes of a highly respectable family, one that is a real ornament to floral society. It belongs to the arum group, which includes such plants as jack-in-the-pulpit, water arum, green dragon, calamus, and the showy and exotic calla lily and elephant's ear.

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