SOCIOLOGY

Drug Abuse From Rat Race

The stresses of modern living and the desire to escape from decision-making cause the misuse of mood-changing drugs such as LSD-25—By Faye Marley

➤ THE CURRENT EXCITEMENT over LSD-25 and similar mood-changing drugs is due to the human rat race, Dr. Don W. Hammersley of the American Psychiatric Association told SCIENCE SERVICE.

"If a new drug came out named alcohol," he said, "its popularity would be enormous. The idea of changing to a different personality all of a sudden is intriguing. Consider what life is like when all time and decision-making are removed. Suddenly a drug makes you feel it does not matter."

LSD-25, which is lysergic acid diethylamide, has a place as a research drug, Dr. Hammersley said, but it should be under sound medical control. There is a danger that psychiatrists in training and research centers are not paying enough attention to the research of their subordinates.

Black market use of this investigational drug has put it into the hands of "oddballs," Dr. Jonathan O. Cole, chief of the psychopharmacology section of the National Institute of Mental Health, Bethesda, Md., explained. He said there are about 15 grantees of the Institute who are doing experimental psychology work with LSD-25, but none is using the drug to treat the mentally ill at this time.

"They are working with normal persons and with animals in an effort to understand the basic mechanism of drugs," Dr. Cole said. There is a potential for misuse among unqualified researchers because LSD-25 is not like heroin or morphine, which are habit-forming narcotics.

Dr. Frances O. Kelsey of the division of new drugs, Food and Drug Administration, said that after June 7 FDA will have a chance to control misuse of investigational drugs because a new law goes into effect then.

"It is not our intention to close down or stop important research," Dr. Kelsey said, "but it is important that those qualified to do the research are doing it. Now applications will have to be made to FDA to show the plan of work that is to be done with what type of drug in what facilities."

• Science News Letter, 83:389 June 2, 1963

MEDICINE

Drug Treatment Prolongs Human Kidney Transfers

➤ A 25-YEAR-OLD Boston accountant is working and living at home more than a year after receiving a kidney transplant from an unrelated donor who had just died. Drugs kept the man from rejecting the kidney.

This is the longest survival to date of 13 patients who received kidney transplants at Peter Bent Brigham Hospital, using drugs as the only means to suppress immunity. Five cadaver kidneys were used as well as those from other unrelated donors. A mother and a brother also donated kidneys.

There are four methods now being used to keep patients from rejecting kidney transplants, a group of five Harvard Medical School doctors reported in the New England Journal of Medicine, 268:1315, 1963. They are total body irradiation, combinations of total irradiation with drugs, focal irradiation to specific sites, and drugs.

Imuran is the single most important drug, the Harvard team said. This drug, whose chemical formula is 1-methyl-4-nitro-5-imidazolyl thiopurine, was first studied to suppress immunity in 1960 at Harvard and first used on a patient in 1961.

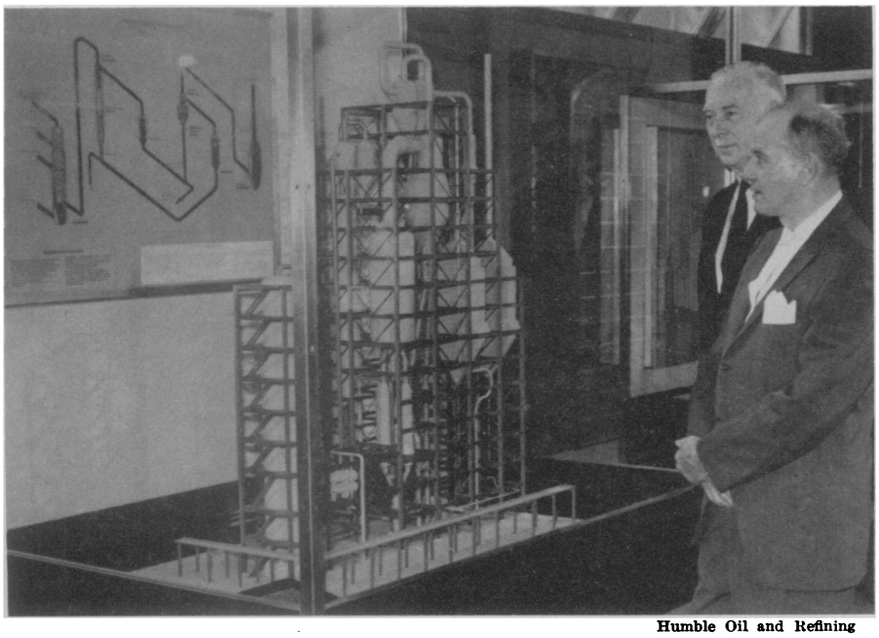
Other drugs used by the team are Azaserine, an alkylating agent; Actinomycin C, an antibiotic, and prednisone, a cortisone compound.

"Cautious optimism" is reported toward the immunity problem that was considered almost insoluble ten years ago. But the investigators say many questions remain.

"The eventual status of these homografted kidneys, the length of time for which the drug must be continued, whether or not the possibility for rejection diminishes with the passage of time and whether the original kidney disease will develop in the homograft are all unsolved problems," they say to explain their caution.

Drs. Joseph E. Murray, John P. Merrill, J. Hartwell Harrison, Richard E. Wilson and Gustave J. Dammin reported the 13 cases.

• Science News Letter, 83:389 June 2, 1963



Humble Oil and Refining

"CAT CRACKER"—Carl E. Reistle Jr. (foreground), president of the Humble Oil and Refining Company, and Dr. Leonard Carmichael, Secretary of the Smithsonian Institution, stand beside the oil refinery "cat cracker" model, representing the first fluid catalytic-cracking unit to go into service in the United States, presented to the Smithsonian. Catalytic cracking was a vital factor in raising the production of aviation gasoline by 10,000% before the end of World War II.

MEDICINE

Mixed-Up Nerve Fibers Cause Crocodile Tears

➤ CROCODILE TEARS are caused by mixed-up nerve fibers.

With this finding medical science has upset the old legend that hypocrisy made the crocodile shed tears before devouring his victims.

Investigating humans who cry only at meals, Dr. P. H. Golding-Wood, consultant at Mid-Kent and Medway Hospital Groups, London, reported in the British Medical Journal, June 8, 1963, that their crocodile tears were related to nerve degeneration.

The patients, who much to their embarrassment cried uncontrollably while eating, had usually suffered facial paralyses a few months before they started shedding crocodile tears.

Paralysis, Dr. Golding-Wood found, degenerated a facial nerve. Nearby saliva nerves, trying to compensate for the disability, sprouted little endings. The endings connected themselves to the tear gland, forming a reflex arc. Thus, every time the patient ate, he cried, for both the salivary and tear glands were stimulated by chewing.

• Science News Letter, 83:389 June 2, 1963