

BIOCHEMISTRY

Aid Drug Addiction Fight

► A NEW aid in the fight against drug addiction has been found. It is a chemical derived from morphine, called N-allylnormorphine. This chemical does not cure morphine addiction, but promises to be a good diagnostic tool for detecting morphine addicts.

If, for example, a doctor wants to know whether a patient is an addict lying about it in an effort to get a prescription for more of his drug, the doctor can give a small dose of the new chemical. The patient's reaction will quickly show whether or not he is an addict.

Persons who have had an overdose of morphine or certain other pain-relieving drugs can be rapidly restored by this new morphine derivative. It acts as an antidote to morphine and its derivatives and to meperidine and methadone.

Its antidotal action may help save new babies whose mothers have been given meperidine to ease childbirth pains. Baby's first breath is taken more promptly, often after the head has been delivered, and the first cry comes faster, doctors have reported.

This childbirth use of the drug and its use as a diagnostic tool for drug addiction are still in the experimental stage, while proper dosages and methods of giving it are checked.

The drug is now available, however, for use as a morphine antidote. It is not active against barbiturates or anesthetics such as cyclopropane or ether. Because it is an opium derivative, it is subject to Federal narcotic laws and is available only on prescription. It is marketed under the trade name, Nal-line, by the manufacturer, Merck and Co.

Science News Letter, April 12, 1952

CYTOLOGY

Growth-Secret Discovery

► THE SECRET of why we grow has been almost completely isolated, it was announced in Chicago.

Infinitesimal fractions of an extract from unborn chicks have been applied to cells taken from the bone marrow and placed in a tissue culture. This substance makes the cells divide for as many as 12 to 14 days. Cell division is the way we grow from the egg to the adult.

The work is being done by Dr. George M. Hass and his associates at the University of Illinois. Dr. Albert W. Schweitzer said that this is the first time, to his knowledge, it has been possible to continue the division of cells outside the body for so long a time.

The scientists are confident it is the tiny fraction of stuff from the chick embryo which contains the growth factor and which promotes the cell division.

The next stage in this research is to produce larger quantities so that chemical analysis can be made of it. Most of the material, they believe, is contained in the cytoplasm, or outside layer of the cell, very little is from the nucleus.

Dr. Schweitzer said that this might be quite effective in healing wounds because it would stimulate the growth of new tissue. His cells divide at the rate of once every 24 hours, just as fast as the fastest normal or abnormal cells in the body.

Drs. Hass and Schweitzer and Dr. M. C. Li, another associate, hope that final isolation of the growth factor will lead to new knowledge of how cancerous cells grow.

Science News Letter, April 12, 1952

INVENTION

Sterilizing Vacuum Cleaner Has Ozone Producing Device

► A STERILIZING vacuum cleaner designed to overcome some disadvantages of similar machines has been invented by Jefferson P. Buckley of Easton, Conn., now deceased, and awarded patent number 2,590,152. The machine incorporates a ray-emitting and ozone-producing device in the nozzle of the cleaner which acts upon the dust and air carried into the sweeper as well as upon the material being cleaned.

Science News Letter, April 12, 1952

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