

have the effect of so much deadly radium. Life itself on earth would be jeopardized.

When and if the government tells what has been discovered by the superbomb research and development, we shall be able to form a better judgment as to the hazards of superbombs.

Defense of the civilian population is little changed by a merely bigger bomb. As the bombs become more powerful, the possibility of making peace and keeping out of war with the Soviets becomes more important.

Science News Letter, August 22, 1953

CYTOLOGY

New Way to Study Cell-Virus Battle

➤ THE BATTLE between body cells and invading disease virus can, it is hoped, be watched and recorded in moving pictures by a new method devised by Drs. Ralph Buchsbaum and Kenneth Wertman and graduate students Evelyn Dwyer, Ronald Gillette and Brother Joseph Kuntz at the University of Pittsburgh.

Body cells are kept alive under a microscope inside a plastic incubator. The incubator keeps the cells at the temperature needed for life and growth, and nourishment is given through special fluids that flow under suitable controls over the cells.

By changing the composition of the fluid or by adding to it a specific virus, the scientists hope to be able to see under the microscope and record with their movie camera the reactions of the cells to changes in nourishment or under attack by disease viruses.

At present chick embryo tissue is under study. Later the scientists hope to study human tissue cells. The project has financial support from the Office of Naval Research, the Atomic Energy Commission and the Army Chemical Center.

Dr. Buchsbaum will go to Rome, Italy, in September, to report on the project before a meeting of the International Congress of Micro-Biology.

Science News Letter, August 22, 1953

PHARMACOLOGY

New Drug Stops Coughs

➤ GOOD RESULTS with a new synthetic drug that stops coughing spasms without making addicts of its users are reported by Drs. Leo J. Cass and Willem S. Frederik of Harvard Medical School in the *New England Journal of Medicine* (Aug. 12).

The new drug is known chemically as dextromethorphan hydrobromide. (See SNL, Jan. 3, p. 7.)

The drug was made and is still in the process of development and investigation by scientists in the Nutley, N. J., laboratories of Hoffmann-La Roche, Inc. Chemically, it is the dextro isomer of the powerful synthetic pain-killer, Dromoran. But it lacks the pain-relieving ability of Dromoran as well as addiction-causing feature.

PUBLIC HEALTH

Alert on TB Meningitis

➤ A WARNING to parents to be alert to symptoms of tuberculous meningitis in their children is given by the National Tuberculosis Association. In this kind of tuberculosis, the TB germs attack the meninges, which are the membranes covering the brain and spinal cord.

Before the discovery of streptomycin, this form of TB was practically 100% fatal. Even with this drug, the disease is often fatal and always serious. As in other forms of tuberculosis, early treatment is important to saving the patient's life.

Young children who get tuberculosis from a grown person frequently develop the meningitis form of the disease. For that reason, parents should be particularly alert to early symptoms of the disease if their children have been in contact with a grown-up who has tuberculosis. Grown persons also may develop this form of TB, and it may be a complication of pulmonary tuberculosis, spreading to the meninges from the lung.

The early symptoms of tuberculous meningitis do not seem particularly significant and may not arouse suspicion. The child may be irritable, have a low-grade fever, and may have difficulty in feeding, with vomiting on occasion. Later, the child may slip into a comatose (unconscious) or semi-comatose state. The child who has convulsions may be fortunate, for the family is shocked into action and a doctor is consulted.

The first person to notice such symptoms in the child should be aware of the possibility of tuberculous meningitis.

About 75% of the time, one specialist says, the adult contact from whom the child caught tuberculosis was in the immediate family. When there is a question about tuberculous meningitis in a child but the diagnosis is not immediately certain, members of the family should be X-rayed. Exam-

ination of the family may not only uncover tuberculosis in the adult but aid in the diagnosis of the child's ailment.

One child brought to this specialist had a father with only a slight "cigarette" cough. But when he was X-rayed a huge cavity was found in his lung. His wife had tuberculous pneumonia. Neither of them had seen a physician. The child died with tuberculous meningitis within two weeks.

Science News Letter, August 22, 1953

SCIENCE NEWS LETTER

VOL. 64 AUGUST 22, 1953 NO. 8

The Weekly Summary of Current Science, published every Saturday by SCIENCE SERVICE, Inc., 1719 N. St., N. W., Washington 6, D. C., North 7-2255. Edited by WATSON DAVIS.

Subscription rates: 1 yr., \$5.50; 2 yrs., \$10.00; 3 yrs., \$14.50; single copy, 15 cents, more than six months old, 25 cents. No charge for foreign postage.

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Printed in U. S. A. Entered as second class matter at the post office at Washington, D. C., under the act of March 3, 1879. Acceptance for mailing at the special rate of postage provided for by Sec. 34.40, P. L. and R., 1948 Edition, paragraph (d) (act of February 28, 1925; 39 U. S. Code 283), authorized February 28, 1950. Established in mimeographed form March 18, 1922. Title registered as trademark, U. S. and Canadian Patent Offices. Indexed in Readers' Guide to Periodical Literature, Abridged Guide, and the Engineering Index.



Member Audit Bureau of Circulation. Advertising Representatives: Howland and Howland, Inc., 1 E. 54th St., New York 22, Eldorado 5-5666, and 360 N. Michigan Ave., Chicago 11, State 2-4822.

SCIENCE SERVICE

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Science News Letter, August 22, 1953