

## MEDICINE

# Encephalitis Patients Develop Protective Substance in Blood

SCIENTISTS working at the National Institute of Health in Washington and at the Rockefeller Institute for Medical Research in New York City have discovered that encephalitis patients develop in their blood substances known as immune bodies which give resistance to the disease.

It is much too early to talk of this discovery leading to a cure or even to prevention of the disease, however, in the opinion of Dr. Charles Armstrong of the U. S. National Institute of Health.

Both groups of scientists worked with a strain of mice, bred at the Rockefeller Institute, that are especially susceptible to virus diseases, which encephalitis is considered to be. They were able to produce the disease in mice by injecting material from the brains of encephalitis victims in the recent St. Louis epidemic. Serum from the blood of other St. Louis encephalitis patients protected mice from such injections, giving them resistance to the disease.

This proved that the disease produced in the mice was the same as that occurring in patients in St. Louis and was not another animal disease, Dr. Armstrong explained. Establishing the disease in mice is of great practical importance because it enables scientists to continue their studies on these animals instead of on the much more ex-

pensive monkeys with which they have previously had to work.

Giving blood serum from recovered encephalitis patients to sick people would probably not help much in checking encephalitis if it has already developed, it was pointed out. In mice, the protective dose can be given at the same time as the infecting dose. Using the convalescent serum to protect man from the disease is not very practical, since there is no way of knowing in advance which persons are going to need the protection it might give.

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## ASTRONOMY

## Leonids Fail To Flash; Watchers See Few Meteors

PATIENT watchers of the skies at the Flower Astronomical Observatory, Upper Darby, Pa., sat up all night Wednesday, Nov. 15, waiting for the hoped-for spectacular Leonid meteor shower—and got nothing for their pains. The shower just didn't materialize. Prof. Charles P. Olivier, director of the Observatory, wired Science Service that during a period of six hours only 102 of the shooting stars flashed out, whereas in the great Leonid displays of earlier days they streaked the sky in thousands. On Tuesday night,

Nov. 14, the seeing was bad on account of clouds, but during about forty minutes of clear sky only two meteors were seen.

Although the Leonid meteor shower did not break into the splendor that astronomers hoped for, a fair display was seen by a group of five watchers at Columbia College, Dubuque, Iowa, under the leadership of Rev. John Theobald, professor of mathematics. At three a. m. Thursday, Nov. 16, the shooting stars were falling at the rate of sixty an hour, which increased to a rate of seventy an hour at 4 a. m.

At Iowa Wesleyan University, Mt. Pleasant, Iowa, Prof. James Van Allen reported seeing the meteors at the rate of about thirty per hour on the night of Monday, Nov. 13, and slightly fewer on the night of Tuesday, Nov. 14. After that the sky was overcast and no observations were made.

Observers at the State University of Iowa, under the direction of Prof. C. C. Wylie, saw only moderate numbers of the meteors on several nights of watching. Prof. Wylie called attention, however, to the possibility of the shower's being seen to better advantage in another, far distant part of the world, since the most brilliant development of the Leonid display lasted only about six hours in the days of its greatest glory, so that later reports may bring the news that Europeans or Asiatics saw what Americans missed.

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## PHYSIOLOGY

## Blood Compound Causes Dilatation of Vessels

BLOOD vessels are dilated by a specific substance found in the blood and also in the body tissues. This chemical compound, identified as adenosine triphosphate by Prof. Cyrus H. Fiske of the Harvard Medical School, was discussed by its discoverer before the meeting of the National Academy of Sciences.

Previous investigations had disclosed its presence only qualitatively and its chemical make up only in part, but recent work by Prof. Fiske has achieved practically quantitative basis. The action of the compound causes, among other physiological effects, the reddening associated with such conditions as fever, inflammation and exposure to heat.

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