

GERIATRICS

Youth Fountain in Brain?

When groups of nerve cells in midbrain are injured by sickness, aging in appearance occurs. Scientists seek relation between disease and old age.

► SMALL MASSES of nerve cells in the midbrain may hold a clue to the Fountain of Youth. When these groups of nerve cells are injured by sickness, as in "sleeping sickness," a look of advanced old age comes even to quite young persons. Perhaps further study of these cells and of the effects of sickness on other cells in the body may lead to extending life to "unlimited periods."

These suggestions appear in a report by Dr. S. Philip Goodhart, professor of clinical neurology at Columbia University, to the American Geriatrics Society in Atlantic City.

For examples he drew from a study of a large group of patients in which the disease process was chiefly in the basal ganglia. These are the small masses of groups of nerve cells within the midbrain. They mediate important vital functions of the body. Among these are the mechanism of blood circulation, the action of the heart, digestion, and the walls of the arteries. Here, too, Dr. Goodhart pointed out, are the centers

closely integrated with the emotions. There is anatomical and physiological relationship between these cells and the higher controlling centers within the brain cortex.

Among the patients studied was a young woman, once graceful and comely. She emerged from an attack of epidemic encephalitis, or so-called sleeping sickness, as a much older woman with features changed and a face almost hideous in its expression. Her figure also had changed its contours.

Two other victims of this disease rapidly developed tremors and expressions of advanced age, "as though a few months had wrought the changes of years."

"Are the changes of advancing years from birth to old age expressions of disease?" Dr. Goodhart asked his medical audience. "Is there reason to look with hope that as Science develops means to prevent disease or builds up immunity, life may extend to unlimited periods?"

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MEDICINE

New Flu Vaccine for Army

A new strain of influenza virus appeared in the last epidemic and vaccine is being developed to protect against it. Promise of anti-flu drug seen.

THE ARMY will probably have a new, better vaccine against influenza next fall. And before too long, all of us may be able to get a specific drug for treatment if we get 'flu.

These possibilities appear in a report made by Dr. Joseph E. Smadel, scientific director of the virus and rickettsial diseases department at the Army Medical Center, Walter Reed Hospital.

Reason for the new influenza vaccine is that a new strain of influenza A virus appeared during the 1947 epidemic. It was so different from the older strains of influenza A that the present vaccine, in some cases at least, could not protect against it. The present vaccine is effective

against the older strain of influenza A and against a strain of influenza B virus.

The Army's epidemiological board has just recommended that the new strain be incorporated with the older strain and the B virus, in vaccine purchased by the Army for use in the fall of 1947.

For treatment of influenza, Dr. Smadel pointed to two drugs that check the growth of the virus when it is growing on eggs in the laboratory. One of these is an acridine, related to the anti-malaria drug, atabrine. Although the growth of the virus is considerably delayed at first, at the end of 72 hours it was growing as well in the acridine treated eggs as in untreated controls.



RAIL ROBOT—Powerful electric generator will feed 1,500 horsepower of energy to a diesel-electric locomotive's driving motors. In larger locomotives, two or more of these generators are operated together.

"Such data as these are not sufficiently exciting to warrant immediate clinical trials of this drug in the treatment of influenza," Dr. Smadel said. "The data do hold promise that a satisfactory drug may be found."

"Candy coating" the flu virus by such sugary materials as apple pectin and blood group A substances also checks its growth in eggs. This was reported last month by scientists of the Rockefeller Institute. The candy coated virus particles, Dr. Smadel explained, seem unable to enter the body cells to cause infection, while the acridine drug probably prevents virus growth by interfering with processes in the body cells essential for multiplication of the virus once it has gotten into them.

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PHYSICS

Oil Recovery from Wells

► TO SPEED the recovery of oil from sluggish wells, Ralph M. Steffen of North Hollywood, Calif., explodes carbureted gases in a cylinder, and pumps them down the well while still flaming hot. The heat reduces the viscosity of the oil, and the pressure substitutes for the lost natural gas pressure. Patent 2,421,528 was granted on this idea.

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