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ONE OF THE HYPOTHESES OF THE OCCURRENCE OF ALZHEIMER'S DISEASE

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Currently, the life expectancy of the population is increasing; therefore, the number of elderly people is also growing. In the age group of 65 and older, about one in ten suffers from Alzheimer's disease. And the older a person gets, the higher the probability of developing of this disease and dying from with it is. In recent years, many researchers of Alzheimer's disease have agreed that the number of patients with this disorder will increase along with the life expectancy of the population. The disease is projected to reach 75 million cases worldwide by 2030. Many people are sure to have heard about this disease and its symptoms. Some people might have encountered their relatives or friends' illness. However, few people know the causes of this disease.

Nowadays, there are many theories about the causes of Alzheimer's disease. However, at the moment, the Amyloid theory is considered the main one, despite the fact that scientists have many questions about it.

The amyloid theory is that brain tissue accumulates beta-amyloid, an insoluble protein that can disrupt the structure and function of nerve cells. In the brain of a patient suffering from Alzheimer's disease, this protein can form amyloid plaques, consisting of clusters of protein. Many researchers believe that these formations contribute to the progressive degeneration of brain cells.

However, scientists have found out that beta-amyloid has antimicrobial activity and is an important element of innate immunity. It has also revealed that beta-amyloid plaques form long before the onset of Alzheimer's disease symptoms. Scientists do not know yet why they are formed. But we can try to understand how these beta-amyloid clusters are formed. They are formed when protein folding is disrupted. The protein folds incorrectly and becomes insoluble, which leads to their accumulation and the formation of amyloid plaques.

To conclude, Alzheimer's disease is a lethal disease and scientists predict that the number of patients will increase over time. Doctors around the world are focusing their efforts to find more effective ways to treat this disease, delay the onset of the disease or prevent its development.

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