

Abstract:

Lipid rafts play a significant role in the pathogenesis of Alzheimer's disease (AD), including in connection with the formation of amyloid β ($A\beta$), a key factor in the development of the disease. The research analyzes in detail the processes of formation of $A\beta$ from amyloid precursor protein (APP) and its modulation through lipid rafts. Lipid rafts are enriched with specific components such as cholesterol and sphingomyelin. Analysis of the relationship of their structure to the regulation of the activity of APP cleaving secretases provides opportunities for therapy aimed at reducing the production of $A\beta$ and slowing the progression of AD.

Key words:

Alzheimer's disease, amyloid β , amyloid precursor protein, lipid rafts, cholesterol, sphingomyelin, neurodegenerative diseases, therapy.