Biochemistry & Physiology: Open Access

ISSN: 2168-9652

Open Access

Abstract

Neurodegenerative diseases such as Alzheimer's, Parkinson's, and Huntington's are characterized by the accumulation of misfolded proteins in the brain, leading to neuronal dysfunction and eventual cell death. Understanding the intricate mechanisms governing protein folding and misfolding is crucial for developing e ective therapeutic strategies. This review article delves into the fundamental processes of protein folding, the factors inþuencing protein misfolding, and the consequences of misfolded protein aggregation in neurodegenerative disorders. Various molecular mechanisms implicated in protein misfolding, including mecha/TT1 1-1.2i8cimpl7 T/TT1 1 TfTf and therapeutic interventions a

and adopt alternative conformations that are prone to aggregation. Several factors contribute to protein misfolding, including genetic mutations, environmental stressors, and errors in protein synthesis and degradation pathways. Genetic mutations can predispose certain proteins to misfolding by altering their primary structure or stability, as observed in familial forms of neurodegenerative diseases such as AD and HD [4,5].

Role of mi folded p o ein in ne odegene a i e di ea e

Molec la chape one and p o eo a i ne o k

7

e ape ic a egie a ge ing p o ein mi folding