Amyloid beta 40

- Diagnostic dynamic contrast-enhanced magnetic resonance imaging blood-brain barrier assessment combined with plasma biomarkers for mild cognitive impairment
- A buoyant plasmonic microbubble-based SERS sensing platform for amyloid-beta protein detection in Alzheimer's disease
- Clinically Accurate Diagnosis of Alzheimer's Disease via Single-Molecule Bioelectronic Label-Free Profiling of Multiple Blood Extracellular Vesicle Biomarkers
- Design, synthesis, and biological evaluation of caffeic acid-based novel multifunctional molecules for the management of Alzheimer's disease
- Sleep Deprivation and Alzheimer's Disease: A Review of the Bidirectional Interactions and Therapeutic Potential of Omega-3
- Associations between objective sleep metrics and brain structure in cognitively unimpaired adults: interactions with sex and Alzheimer's biomarkers
- Biomarker changes associated with fornix deep brain stimulation in Alzheimer's disease
- Transcriptional Landscape and Biomarker Discovery for Endoplasmic Reticulum Stress in Alzheimer's Disease: An Ex Vivo Study Using Patients-Derived Dermal Fibroblasts

The abnormal accumulation of Amyloid beta (Aβ) peptide in the brain is one of the most important hallmarks of Alzheimer's disease. Aβ is an aggregation-prone and toxic polypeptide with 39-43 residues, derived from the amyloid precursor protein proteolysis process. According to the amyloid hypothesis, abnormal accumulation of Aβ in the brain is the primary influence driving Alzheimer's disease pathologies. Among all kinds of Aβ isoforms, Aβ40 and Aβ42 are believed to be the most important ones. Although these two kinds of Aβ differ only in two amino acid residues, recent studies show that they differ significantly in their metabolism, physiological functions, toxicities, and aggregation mechanism. In this review, we mainly summarize the similarities and differences between Aβ42 and Aβ40, recent studies on selective inhibitors as well as probes will also be mentioned [1].

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see also Total Tau

see also Phosphorylated Tau

see also Amyloid beta 42

1)
Qiu T, Liu Q, Chen YX, Zhao YF, Li YM. Aβ42 and Aβ40: similarities and differences. J Pept Sci. 2015 Jul;21(7):522-9. doi: 10.1002/psc.2789. Epub 2015 May 28. PMID: 26018760.