Alzheimer's Disease Therapeutic Targets

Name of target	Source	Functions
Amyloid protein precursor (APP)	Hippocampus, olfactory bulb	Formation of Aβ
Muscarinic acetylcholine receptor (mAchR)	Hippocampus	Hyperphosphorylation of tau protein
Nicotinergic acetylcholine receptor (nAChR)	Cerebral cortex	Cognitive, memory function and also involve in progression of sensory information
Triggering receptor expressed on myeloid cells 2 (TREM2)	Myeloid cells	amyloid pathology
Calcitonin gene- regulated peptide (CGRP)	Hypothalamus, ventromedial nucleus of the thalamus, amygdala, grey matter, hippocampus and denate gyrates	Neurotransmitter
C-C chemokine receptor type-5 (CCR5)	Cortical neurons, hippocampal	Recruitment of leukocytes to inflammatory sites
β-Secretase: Aspartyl Proteases(BACE)	Astrocyte	Formation of Aβ
γ-Secretase: Presenilin I (PSEN1)	Medial temporal lobe cortex	Formation of Aβ
Protein tyrosine phosphatase 1B (PTP1B)	Hippocampal, microglial	Learning, memory, endoplasmic reticulum, stress, regulation of synapse dynamics and microglial mediated Neuroinflammation.
Nuclear facto r E2 related factor-2 (Nrf2)	Temporal lobe, microglia and astrocytes	Antioxidant Maintaining redox balance and eliminate damage proteins
Butyrylcholinesterase (BCHE)	Basal forebrain	Neuritic plaques and neurofibrillary tangles
Phosphodisterase (PDE)	Hippocampus, Cortex stratium	Hydrolysis of CGMP
N-myc downstream-regulated gene 2 (NDRG2)	Astrocytes, glia cells	Differentiation, cell proliferation and cell apoptosis