J Alzheimers Dis Parkinsonism 2017, 7:6(Suppl)
DOI: 10.4172/2161-0460-C1-034

Multi-target-directed ligands inhibition of acetylcholinesterase, amyloid aggregation and its V L J Q L ¿ F D Q F H L Q $ O] K H L P H U ¶ V G L V H D V H W U H D W P H Q W

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A treatment to the Alzheimer's disease (AD) consists of inhibition of the Acetylcholinesterase, which is responsible for the acetylcholine control in the synapses. A new class of multi-target-directed ligands (MTDLs) based on a 1,10-phenanthroline-5,6-dione derivatives were tested in vitro against acetylcholinesterase (AChE) these compounds inhibit AChE-induced anti-amyloid (A) aggregation. 1,10-phenanthroline5,6-dione can act as a lead molecule for developing drug(s) against AD diseas with dual functions namely. e in vitro evaluation of the prepared compounds were tested by using Ellman's colorimetric method in 96-welled microplates some of them showed lower IC50 values on inhibiting the AChE and the IC50 value 6E-6-[(2-hydroxyphenyl) imino]-1,10-phenanthrolin-5(6H)-one was 53 mM. is study provided bene cial information for further development of resveratrol derivatives as multitarget-directed agents for AD therapy.

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