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(54) **Title**: NEUROPROTECTIVE EFFECT OF CAROTENOIDS IN BRAIN

(57) **Abstract**: The present invention provides use of composition containing molecular dispersions - of carotenoids for the prevention of neurodegenerative disorders which are safe for human consumption and are particularly useful as dietary supplements for nutrition and health promoting benefits. The present invention particularly relates to the use of highly water soluble composition with enhanced bioavailability containing at least 80% by weight of total xanthophylls, out of which the trans-lutein content is 80-95% w/w; (R,R)-zeaxanthin is 14-20% w/w; (R,S)-zeaxanthin is 0.01-1%) w/w and traces of other carotenoids derived from the plant extracts/oleoresin containing xanthophylls/xanthophylls esters. The present invention also provides use of the said composition in treatment of neurodegenerative disorders when co-administered along with reduced dose of Levodopa and Carbidopa.