

Antidepressant suppresses the intercellular propagation of pathogenic protein aggregates in Parkinson's disease and multiple system atrophy - a potential therapeutic target for neurodegenerative diseases -

Associate Professor Atsushi Takeda

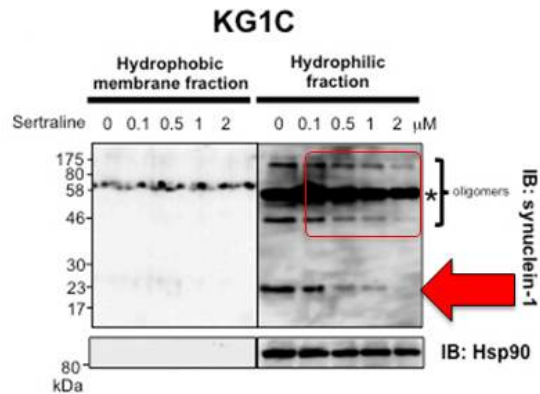
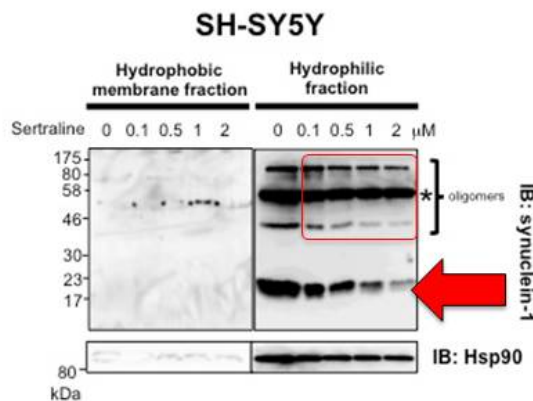
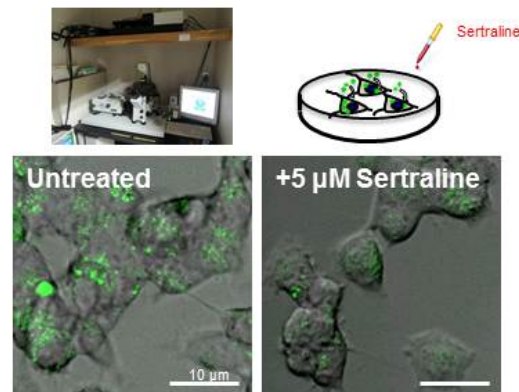
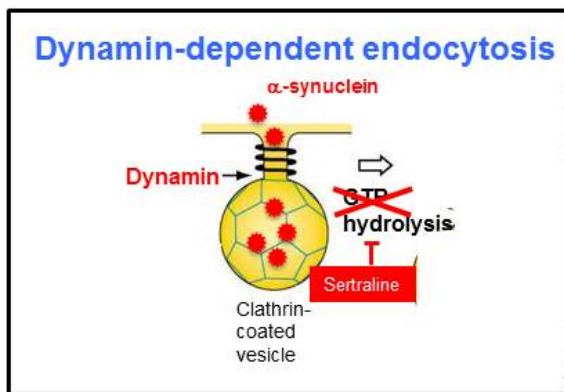
The research group led by Assistant Professor Takafumi Hasegawa, Dr. Masatoshi Konno, and Associate Professor Atsushi Takeda of Tohoku University Graduate School of Medicine has found that antidepressant sertraline effectively suppressed the cell-to-cell transmission of pathogenic protein aggregates in the cellular model of Parkinson's disease and related disorders. This discovery paves the way for future therapeutic uses in the treatment of the aforementioned diseases. The results of the research have been published in the electronic version of Molecular Neurodegeneration.

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Sertraline inhibits α -syn internalization in neuronal and oligodendroglial cells



Konno M, Hasegawa T, et al., Mol Neurodegener 2012, 7(1), 38

A research group led by Associate Professor Takeda has found that antidepressant sertraline effectively suppressed the cell-to-cell transmission of pathogenic protein aggregates in the cellular model of Parkinson's disease and related disorders

“Suppression of dynamin GTPase decreases α -synuclein uptake by neuronal and oligodendroglial cells: a potent therapeutic target for synucleinopathy.”

Konno M, Hasegawa T, Baba T, Miura E, Sugeno N, Kikuchi A, Fiesel FC, Sasaki T, Aoki M, Itoyama Y, Takeda A. *Mol Neurodegener.* 2012 Aug 14;7:38. doi: 10.1186/1750-1326-7-38. PMID: 22892036 [PubMed - in process] PMCID: PMC3479026