

- to understanding failure of a clinical trial for Alzheimer's disease. *J Alzheimers Dis* **68**, 1677-1686.
- [67] Okuda M, Hijikuro I, Fujita Y, Wu X, Nakayama S, Sakata Y, Noguchi Y, Ogo M, Akasofu S, Ito Y, Soeda Y, Tsuchiya N, Tanaka N, Takahashi T, Sugimoto H (2015) PE859, a novel tau aggregation inhibitor, reduces aggregated tau and prevents onset and progression of neural dysfunction in vivo. *PLoS One* **10**, e0117511.
- [68] Okuda M, Fugita Y, Hijikuro I, Wada M, Uemura T, Kobayashi Y, Waku T, Tanaka N, Nishimoto T, Izumi Y, Kume T, Akaike A, Takahashi T, Sugimoto H (2017) PE859, a novel curcumin derivative, inhibits amyloid- β and tau aggregation, and ameliorates cognitive dysfunction in senescence-accelerated mouse prone 8. *J Alzheimers Dis* **59**, 313-328.
- [69] Yanagisawa D, Hamezah HS, Durani LW, Taguchi H, Tooyama I (2018) Study of tau pathology in male rTg4510 mice fed with a curcumin derivative Shiga-Y5. *PLoS One* **13**, e0208440.
- [70] Emmanuel IA, Olotu FA, Agoni C, Soliman M (2019) Deciphering the "elixir of life": Dynamic perspectives into the allosteric modulation of mitochondrial ATP synthase by J147, a novel drug in the treatment of Alzheimer's disease. *Chem Biodivers* **16**, e1900085.
- [71] Chen M, Du ZY, Zheng X, Li DL, Zhou RP, Zhang K (2018) Use of curcumin in diagnosis, prevention, and treatment of Alzheimer's disease. *Neural Regen Res* **13**, 742-752.
- [72] Ryan P, Xu M, Davey AK, Danon JJ, Mellick GD, Kassiou M, Rudrawar S (2019) The O-GlcNAc modification protects against protein misfolding and aggregation in neurodegenerative disease. *ACS Chem Neurosci* **10**, 2209-2221.
- [73] Hastings NB, Wang X, Song L, Butts BD, Grotz D, Hargreaves R, Fred Hess J, Hong KK, Huang CR, Hyman BT, Lavery M, Lee J, Levitan D, Lu SX, Maguire M, Mahadevanongkul V, McEachern EJ, Ouyang X, Rosahl TW, Selnick H, Stanton M, Terracina G, Vocadlo DJ, Wang G, Duffy JL, Parker EM, Zhang L (2017) Inhibition of O-GlcNAcase leads to elevation of O-GlcNAc tau and reduction of tauopathy and cerebrospinal fluid tau in Tg4510 mice. *Mol Neurodegener* **12**, 39.
- [74] Smith R, Schain M, Nilsson C, Strandberg O, Olsson T, Hägerström D, Jögi J, Borroni E, Schöll M, Honer M, Hansson OO (2016) Increased basal ganglia binding of 18 F-AV-1451 in patients with progressive supranuclear palsy. *Mov Disord* **32**, 108-114.
- [75] Selnick H, Hess JF, Tang C, Liu K, Schachter J, Ballard JE, Marcus JN, Klein DJ, Wang X, Pearson M, Savage MJ, Kaul R, Li T, Vocadlo DJ, Zhou Y, Zhu Y, Mu C, Wang Y, Wei Z, Bai C, Duffy JL, McEachern EJ (2019) Discovery of MK-8719, a potent O-GlcNAcase inhibitor as a potential treatment for tauopathies. *J Med Chem*, doi: 10.1021/acs.jmedchem.9b01090
- [76] Davies P (2016) Passive immunotherapy for tau pathology. In *Developing Therapeutics for Alzheimer's Disease*, Wolfe MS, ed. Elsevier Inc., pp. 371-377.
- [77] Bittar A, Sengupta U, Kaye R (2019) Prospects for strain-specific immunotherapy for Alzheimer's disease and tauopathies. *NPJ Vaccines* **3**, 1-11.
- [78] Sigurdsson EM (2018) Tau immunotherapies for Alzheimer's disease and related tauopathies: Progress and potential pitfalls. *Alzheimers Dis* **64**, S555-S565.
- [79] Novak M, Kontseková E, Zilka N, Novak M (2018) Ten years of tau-targeted immunotherapy: The path walked and the road ahead. *Front Neurosci* **12**, 798.
- [80] Novak M, Zilka N, Zilkova M, Kovacech B, Skrabana R, Ondrus M, Zialova L, Kontseková E, Otto M, Novak M (2019) AADvac1, an active immunotherapy for Alzheimer's disease and non-Alzheimer tauopathies: An overview of preclinical and clinical development. *J Prev Alzheimers Dis* **6**, 60-69.
- [81] Vanderlugt CL, Miller SD (2002) Epitope spreading in immune-mediated diseases: Implications for immunotherapy. *Nat Rev Immunol* **2**, 85-95.