

Tau-based vaccines could transform Alzheimer Treatment

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According to Mr Kyle S Nicholson, PharmD, GlobalData's analyst covering neurology, tau-based therapies for AD have traditionally been overlooked in favor of passive beta amyloid immunotherapies, such as Eli Lilly's solanezumab and Roche's gantenerumab and crenezumab.

However, this interest appears to be receding after notable setbacks in recent years, and tau-based immunotherapies now have the potential to capture larger patient shares than these products.

Mr Nicholson explained, "Tau is one of two peptides linked to AD, and is known for forming tangles of neuronal fibers inside the brain and causing cellular death. The other abnormal protein believed to cause damage that leads to AD is beta amyloid. Doubts are starting to arise over whether or not the removal of beta amyloid will affect a patient's cognitive status. Given that tau-related pathology might occur before beta amyloid becomes implicated, a tau-based approach may have a greater chance of eliciting measurable effects earlier in the disease's progression."

The analyst notes that Johnson & Johnson and AC Immune have already entered into a three-year agreement to develop and commercialize tau-based immunotherapies for AD.

These include ACI-35, which is currently in Phase IIb trials and positioned to be the first-in-class phosphorylated tau proteins vaccine inhibitor.

However, Mr Nicholson added, "Despite its potential first-in-class status, ACI-35 will encounter significant competition from disease-modifying passive immunotherapies and oral beta-secretase inhibitors, which will start populating the market in 2018."

"We expect AstraZeneca/Eli Lilly's AZD-3293 and Merck's MK-8931 to capture over 15 percent of the global AD space by

2023. ACI-35 will therefore likely enter a highly competitive arena several years after the beta amyloid therapies have already taken a significant patient share," the analyst concludes.