



PRESS RELEASE

AgentT Unveils Promising Early Data on Its Alzheimer's Multiomics Blood Test at Alzheimer's Association International Conference

July 28, 2020 10:00 AM Central European Time

PARIS, France – AgentT, a life sciences company whose mission is to detect Alzheimer's early through a simple blood test, is presenting promising early data on its efforts to utilize Machine Learning to detect Alzheimer's at its earliest stages, when treatment might be most effective.

Despite years of research, the current diagnosis of Alzheimer's is largely based on clinical symptoms, including cognitive testing, with a significant number of patients diagnosed when their disease has already advanced. Currently available tests for Alzheimer's are expensive, invasive and they cannot detect the disease from the silent phase. New biomarkers to easily and more specifically screen and diagnose patients are key to prevent the irreversible symptoms.

AgentT's poster, [*Blood-based Detection of Early-stage Alzheimer's Using Multiomics and Machine Learning*](#), suggests that a multiomics blood test powered by Machine Learning may soon be a viable alternative.

These data are presented today at the 2020 Alzheimer's Association International Conference (AAIC).

AgentT's poster represents the first readout from the APOLLO study, a retrospective and multi-center study to validate multiomics Alzheimer's signals in the plasma of people with and without Alzheimer's. The biomarkers have already been pre-identified in a brand-new rat model ([*Audrain et al., \(2018\) Cereb Cortex*](#)). These preliminary results included 232 human plasma samples (1 sample = 1 individual) from 3 independent cohorts: two with the sporadic form of Alzheimer's and one with Down Syndrome individuals. All adults with Down syndrome show the neuropathological changes of Alzheimer disease by the age of 40. This association is due to overexpression of amyloid precursor protein, encoded

by APP, as a result of the location of this gene on chromosome 21 ([Fortea et al. \(2020\), Lancet](#)).

All participants were recruited and followed by Lariboisière-Fernand-Widal hospital (Paris, France, Pr. Claire Paquet) and Hospital de la Santa Creu i Sant Pau (Barcelona, Spain, Dr. Juan Fortea and Dr. Alberto Lleó). The control group consists of healthy individuals (n=50), without cognitive impairment, and other dementias excluding Alzheimer's (n=53). The Alzheimer's group consists of patients sampled in asymptomatic (n=34), prodromal (n=45) and dementia phases. The prodromal Alzheimer's patients have been followed up to 13 years until their conversion to dementia.

Using a neural network based on 25 biomarkers, the multiomics blood test demonstrated 100% sensitivity and 99% specificity for Alzheimer's vs Non-Alzheimer's (5-folds cross-validation). 231/232 samples were correctly classified. MMSE score, age, gender or APOE4 genotype were not used by the algorithm. "We are excited to present these initial results. It shows that a highly specific blood test for early Alzheimer's is possible using a Machine Learning approach," said Jérôme Braudeau, PhD, co-founder & CEO of AgentT.

None of the 25 biomarkers analyzed are produced by the brain: they are produced or regulated by peripheral organs. "This is a major advantage. Using these peripheral biomarkers signals, our blood test can detect Alzheimer's as soon as the amyloid pathway is engaged while being extremely specific," stated Jérôme Braudeau, PhD, co-founder and CEO of AgentT. Indeed, the combination of these biomarkers considers the inherent sensitivity of the subject to amyloid toxicity, thereby reducing the false positives.

Earlier efforts to develop Alzheimer's tests have focused on Abeta, Tau or cerebral injuries biomarkers. These approaches have shown limited effectiveness as an early Alzheimer's diagnostic tool, due in part to the lack of sensitivity and specificity of these biomarkers during early-stage disease.

AgentT's AI-based approach goes beyond the conventional Alzheimer's biomarkers to examine other biological signals in the blood, identifying complex patterns associated with the body's response to Alzheimer's.

The Company expects to confirm these results on additional plasma samples from other memory centers by the end of the year.

About AgentT

AgentT is a life sciences company whose mission is to detect Alzheimer's early through a simple blood test. By combining multiomics assays with advanced machine learning techniques to recognize Alzheimer's associated patterns, AgentT is developing a non-invasive blood test to detect Alzheimer's up to 20 years before the onset of the irreversible symptoms. AgentT is headquartered in Paris, France.

For more information about AgentT, please visit www.agent-biotech.com.

About AAIC

The Alzheimer's Association International Conference is the largest and most influential international meeting dedicated to advancing dementia science. Each year, AAIC convenes the world's leading basic science and clinical researchers, next-generation investigators, clinicians, and the care research community to share research discoveries that will lead to methods of prevention and treatment and improvements in the diagnosis of Alzheimer's disease.

For more information about AAIC, please visit <https://www.alz.org/aaic/overview.asp>.