



PRESS RELEASE

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PharmaKure and APIS Assay Technologies Sign a Collaboration for the Development of Clickmers related to Neurodegenerative Diseases.

PharmaKure, a company specialising in companion diagnostics for the treatment of neurological diseases and APIS Assay Technologies Ltd, a company with scientific expertise in biomarker translation, molecular diagnostics and bioinformatics have entered into a collaboration to progress a development project for the use of Clickmers for highly selective detection of biomarkers associated with Alzheimer's disease (AD). Clickmers are single-stranded DNA oligonucleotides modified with Nobel prize-winning Click chemistry.

Under the terms of the collaboration, APIS and PharmaKure will advance the development of specific Clickmers targeting biomarkers associated with Alzheimer's disease pathology and their clinical validation for diagnostic purposes. Certain blood biomarkers of amyloid- β (Total, A β 40 and A β 42), aggregated α -synuclein, aggregated Tau (Total and pTAU (181)), NFL and DJ-1 have been associated with Alzheimer's Disease pathology. The Clickmer technology will be used to sensitively and accurately quantify the levels of these biomarkers in blood.

'We are excited to collaborate with APIS on the possibility of using Clickmers for advancing increased binding affinity towards Alzheimer's biomarkers such as amyloid- β ,' said **Dr Farid Khan, CEO at PharmaKure**. 'This is one of the steps to bring to the market effective disease-modifying therapeutics in AD by combining our lead drug candidate PK051 with an early detection of disease-related biomarker assays'.

'We are very excited to be collaborating with the PharmaKure team. It is a fantastic opportunity to support the development of novel diagnostic tests that detect biomarkers associated with neurodegenerative diseases, such as Alzheimer's' said **Dr Helen Fielder, Head of Technology at APIS**. 'Using APIS' novel Clickmer technology, we aim to deliver highly specific and high affinity detection of Alzheimer's biomarkers, to support earlier detection of the disease. Earlier detection alongside PharmaKure's lead drug candidate PK051 has the potential to significantly improve the treatment of AD patients'.

'Our goal is to accurately identify patients that are starting on the road to Alzheimer's Disease, even before they have any symptoms. The Clickmer Systems technology will allow us to measure the levels of the protein forms that trigger the onset of the disease' said **Professor Andrew Doig, Head of Research and Development at PharmaKure**. 'A combination of new drugs and diagnostics will finally allow us to find the effective treatments for Alzheimer's Disease that we so desperately need.'

About Alzheimer's Disease

Alzheimer's disease is a fatal illness that causes progressive decline in memory and other aspects of cognition. Dementia due to Alzheimer's is the most common form of dementia, accounting for 60 to 80 percent of all cases. Every 3 seconds someone in the world develops dementia. 850,000 (UK) and 44 million (worldwide) are suffering from Alzheimer's or dementia related illnesses. In 2020, the total cost of care for people with dementia in the UK is £34.7 billion. Globally, the cost was \$360 billion and by 2050 the costs could be a \$1 trillion (source Alzheimer's Research UK). In the US alone, there was an increase of 8 million new caregivers from 2015 to 2020. The current annual societal and economic cost of dementia is estimated as \$1 trillion, an amount that is expected to double by 2030 unless we find a way to slow the disease.

About PharmaKure

PharmaKure is a UK based pharmaceutical company, spun out from the University of Manchester. The Company is actively researching, developing, commercialising and repurposing drugs for the treatment of Alzheimer's, Parkinson's and other neurodegenerative diseases. The Company is developing companion diagnostics which are blood-based tests (ALZmetrix™) that measure the levels of biomarkers associated with Alzheimer's Disease (AD).

For more information, contact info@pharmakure.com; visit: www.pharmakure.com

About APIS Assay Technologies

APIS is leveraging systems biology, interrogating multi-OMICs biodata, and deploying innovative 'Clickmer' ligand binding technology, for the validation and translation of biomarker and therapeutic assets into clinical utility. APIS has deep expertise and capabilities in IVD development of molecular and immunoassays for ultimate product realisation as diagnostic tests. In addition, APIS' expertise in bioinformatics and software development is offered as an agile service to our clients, to develop bespoke, end-to-end multi-OMICs solutions and platform development.

For more information, visit <https://www.apisassay.com/>, or follow APIS on Twitter @ApisAssay or LinkedIn.