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NETRAMARK AND THE ONTARIO BRAIN INSTITUTE PARTNER TO ADVANCE AI-POWERED NEUROANALYTICS FOR MAJOR DEPRESSION RESEARCH

TORONTO, ON, Feb 25, 2025 – NetraMark Holdings Inc. (the "Company" or "NetraMark") (CSE: AIAI) (OTCQB: AINMF) (Frankfurt: 8TV) a generative AI software leader in clinical trial analytics, announces its funded collaboration with the Ontario Brain Institute (OBI) to enhance the analysis of brain imaging and multi-modal data from Major Depressive Disorder (MDD) clinical research to achieve treatment separation in future clinical trials.

The collaboration, formalized as an OBI Centre for Analytics (CfA) - Analytics Initiative, focuses on "Major Depression Multivariate Patient Response Characterization." The project aims to develop innovative neuroanalytics tools that will streamline the processing of Magnetic Resonance Imaging (MRI), functional Magnetic Resonance Imaging (fMRI), and Magnetoencephalography (MEG) data, making it machine-learning-ready for advanced research applications. The initiative will introduce graph theoretical variables into a structured pipeline, enhancing the understanding of patient responses to common and emerging treatments, including escitalopram and ketamine.

"This collaboration with OBI is a significant milestone for NetraMark, allowing us to leverage AI to improve mental health research and clinical decision-making," said Joseph Geraci, CTO and CSO of NetraMark. "By developing sophisticated machine learning pipelines, we are helping advance personalized medicine, accelerate discoveries in neuropsychiatric disorders, and improve how we help our clients better understand their psychiatric clinical trials."

Transforming Brain Imaging Data for AI Applications

The *OBI funded project* will develop a computational framework that integrates graph theoretical modeling, machine learning algorithms, and clinical data fusion to enhance the characterization of MDD patient responses. NetraMark will use a Canadian Biomarker Integration Network in Depression (CAN-BIND) (https://www.canbind.ca) dataset and a National Institute of Mental Health (NIMH) ketamine dataset to refine models that aim to predict treatment effectiveness.

Key objectives include:

- Creating a robust AI-ready pipeline for integrating fMRI, MEG, and clinical scale data.
- Deriving novel biomarkers using graph theory to model brain network dynamics.
- Enhancing clinical trial methodologies through predictive analytics.
- Promoting open science by making the pipeline available to researchers via OBI's computational resources.

Accelerating Innovation in Precision Medicine

This collaboration aligns with NetraMark's broader vision to leverage AI for deeper insights into complex diseases, with applications extending beyond MDD to other neuropsychiatric and neurological conditions. The partnership aims to underscore the potential of AI in enhancing precision medicine, optimizing clinical trial enrichment, and improving patient outcomes.

"At the Ontario Brain Institute, we are committed to identifying personalized treatment pathways that improve outcomes for people living with Major Depressive Disorder," said Dr. Tom Mikkelsen, OBI's President and Scientific Director. "Through this Centre for Analytics collaboration, we are proud to continue our work with NetraMark, seeing them make use of our programs that are designed to help companies move along the translational pipeline to develop, test, and validate new and innovative therapies for MDD and other brain disorders."

About the Ontario Brain Institute

The Ontario Brain Institute (OBI) is a provincially funded, not-for-profit organization that accelerates discovery and innovation, benefiting both patients and the economy. OBI's collaborative team science approach promotes brain research, commercialization, and care by connecting researchers, clinicians, industry, patients, and their advocates to improve the lives of those living with brain disorders.

For media inquiries or more information, please contact: Renée Dunk, Senior Communications Lead (Ontario Brain Institute): rdunk@braininstitute.ca | 416-562-2695

About NetraAI
In contrast with other AI-based methods, NetraAI is uniquely engineered to include focus mechanisms that separate small datasets into explainable and unexplainable subsets. Unexplainable subsets are collections of patients that can lead to suboptimal overfit models and inaccurate insights due to poor correlations with the variables involved. The NetraAI uses the explainable subsets to derive insights and hypotheses (including factors that influence treatment and placebo responses, as well as adverse events) that have the potential to increase the chances of a clinical trial success. Other AI methods lack these focus mechanisms and assign every patient to a class, even when this leads to "overfitting" which drowns out critical information that could have been used to improve a trial's chance of success.

About NetraMark
NetraMark is a company focused on being a leader in the development of Generative Artificial Intelligence (Gen AI)/Machine Learning (ML) solutions targeted at the Pharmaceutical industry. Its product offering uses a novel topology-based algorithm that has the ability to parse patient data sets into subsets of people that are strongly related according to several variables simultaneously. This allows NetraMark to use a variety of ML methods, depending on the character and size of the data, to transform the data into powerfully intelligent data that activates traditional AI/ML methods. The result is that NetraMark can work with much smaller datasets and accurately segment diseases into different types, as well as accurately classify patients for sensitivity to drugs and/or efficacy of treatment.

For further details on the Company please see the Company's publicly available documents filed on the System for Electronic Document Analysis and Retrieval+ (SEDAR+).

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