

NETRAMARK UNCOVERS UNIQUE ALZHEIMER'S DISEASE SUBTYPES

TORONTO, March 15, 2023 /CNW/ - **NetraMark Holdings Inc. (the "Company" or "NetraMark")** (CSE: AIAI) (Frankfurt: 8TV) (OTC: AINMF) announces the release of its Alzheimer's Disease (AD) white paper further demonstrating the capabilities of NetraAI to uncover new insights within patient populations of heterogeneous disorders with unmet needs.

"Our Alzheimer's white paper continues to provide evidence that demonstrates our powerful patient stratification capabilities. It is important for us to share novel insights from clinical data to facilitate the market understanding of our unique capabilities and how they can improve the clinical trial process." President, Josh Spiegel.

The NetraMark approach to uncovering unique perspectives in Alzheimer's disease

Through the ingestion of a relatively small publicly available Alzheimer's disease gene expression dataset, we were able to stratify samples from Alzheimer's disease patients by 6 progression mechanisms. The metal ion transport, mitochondrial, metabolism, cell signaling and differentiation, vasculogenesis, and nitric oxide progression pathways that we identified highlight the mechanisms that contribute to Alzheimer's disease heterogeneity.

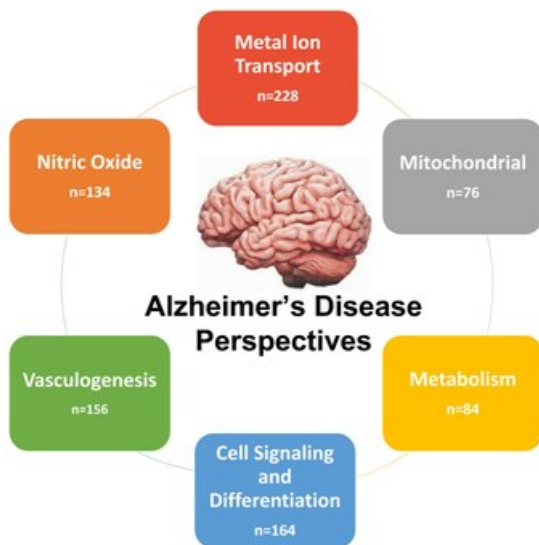


Figure 1. NetraAI-identified perspectives in Alzheimer's Disease.

(CNW Group/NetraMark Holdings Inc.)

This is an important example of a machine learning system partitioning a gene expression Alzheimer's sample data set into biologically plausible disease progression paths without training for these subtypes. The NetraAI technology discovered these segments while it learned how to separate controls versus AD from samples derived from post mortem brain samples. NetraAI's outputs are clear and interpretable for human interrogation, which is critical for decision making in a clinical trial. Furthermore, the additional results discussed in the white paper corroborate findings established in the field, including characteristics contributing to disease etiology and sex-based differences in incidence. More specifically, the technology revealed that microtubule stability may play an important role in the vasculogenesis and metabolism disease paths, which supports previous non-AI based findings. This suggests that there may be a potential common mechanism involving microtubules affecting certain patients and driving disease progression. A unique aspect of NetraAI's findings was the specific implication of *GTSE1* and *TUBB1* as being important factors for these

subtypes of AD, in addition to other genes that are being considered as potential therapeutic targets for neurodegeneration with one of our partners. This can have consequences for future clinical trials by those studying AD.

Significance of findings

AD is widely known as a heterogeneous disease, yet often AD drug trials have broad inclusion criteria and don't account for disease heterogeneity in trial design. The work described in our white paper demonstrates that the NetraAI technology is able to partition a patient population into subtypes even when labels are missing, and to provide clear interpretable hypotheses. This of itself is an important technological facet of the NetraAI technology. Further, the specific insights derived from this project for AD patients can help drive clinical trials for this disease forward by improving how AD patients can be matched with drugs, depending on their different mechanisms of action.

Furthermore, Dr. Donald Weaver, MD, PhD, FRCPC, FCAHS and current Research Director and Institute Co-Director at the Krembil Brain Institute at the University Health Network (UHN), and the Canada Research Chair, Tier 1, Division of Neurology, Department of Medicine, Faculty of Medicine, University of Toronto, who has won multiple national awards in chemistry and neurology and has devised two compounds that have reached phase III trials, has reviewed output from the NetraAI technology in relation to a NetraMark AD partner project, had this to say about NetraAI and its capabilities:

"Alzheimer's research has been dominated for decades by the protein misfolding theory known as the 'amyloid hypothesis'. The failure of this hypothesis to deliver a cure highlights the crucial need to apply cutting edge technologies like NetraAI and to generate new ideas in order to improve clinical trials in the pursuit of truly effective treatments for AD. This is an exciting opportunity to broaden our perspectives and to bring much-needed new concepts and new drug targets to one of humanity's greatest health and socioeconomic challenges," said Dr. Donald Weaver.

"It is exciting to see NetraAI go beyond other methods and stratify a patient population with clarity, even when labels are not available for ML training. This has material repercussions for clinical trials since the better we understand these heterogeneous patient populations, the more successful clinical trials can be. The precision with which our technology was able to capture microtubule function in AD is fascinating as well," said NetraMark's founder and CSO/CTO, Dr. Joseph Geraci.

A link to the white paper can be found here: [NetraMark AD white paper](#)

About NetraMark

NetraMark is a company focused on being a leader in the development of Artificial Intelligence (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).

Forward-Looking Statements


This press release contains "forward-looking information" within the meaning of applicable Canadian securities legislation including statements regarding the validation of the NetraAI technology and its

capabilities to find unique insights from small datasets and to solve the core challenges associated with clinical trials, the power of our patient stratification capabilities, the potential to identify progression pathways that contribute to AD heterogeneity, the quality of the outputs of the NetraAI technology for human interrogation, the possible corroboration of existing findings including in particular the potential role of microtubule stability in disease paths and the potential implication of GTSE1 and TUBB1 as being important factors and the potential use of the insights from the paper for others to drive their clinical trials which are based upon NetraMark's current internal expectations, estimates, projections, assumptions and beliefs, and views of future events. Forward-looking information can be identified by the use of forward-looking terminology such as "expect", "likely", "may", "will", "should", "intend", "anticipate", "potential", "proposed", "estimate" and other similar words, including negative and grammatical variations thereof, or statements that certain events or conditions "may", "would" or "will" happen, or by discussions of strategy. Forward-looking information includes estimates, plans, expectations, opinions, forecasts, projections, targets, guidance, or other statements that are not statements of fact. The forward-looking statements are expectations only and are subject to known and unknown, risks, uncertainties and other important factors that could cause actual results of the Company or industry results to differ materially from future results, performance or achievements. Any forward-looking information speaks only as of the date on which it is made, and, except as required by law, NetraMark does not undertake any obligation to update or revise any forward-looking information, whether as a result of new information, future events, or otherwise. New factors emerge from time to time, and it is not possible for NetraMark to predict all such factors.

When considering these forward-looking statements, readers should keep in mind the risk factors and other cautionary statements as set out in the materials we file with applicable Canadian securities regulatory authorities on SEDAR at www.sedar.com including our Management's Discussion and Analysis for the year ended September 30, 2022. These risk factors and other factors could cause actual events or results to differ materially from those described in any forward-looking information.

The CSE does not accept responsibility for the adequacy or accuracy of this release.

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