April 25, 2023

Data Presented at American Academy of Neurology Annual Meeting on Novel Vaccine Design for Alzheimer's Disease

- *Findings support Aβ vaccine candidate consisting of conformational B cell epitope of Aβ oligomers conjugated to a carrier protein as a potential strategy for preventing Alzheimer's disease progression*

TORONTO, Ontario and CAMBRIDGE, Massachusetts, April 25, 2023 (GLOBE NEWSWIRE) -- ProMIS Neurosciences Inc. (TSX: PMN) (Nasdaq: PMN), a biotechnology company focused on the generation and development of antibody therapeutics targeting toxic misfolded proteins in neurodegenerative diseases such as Alzheimer's disease (AD), amyotrophic lateral sclerosis (ALS) and multiple system atrophy (MSA), today presented preclinical data supporting the development of a computationally-derived amyloid-beta (Aβ) vaccine for AD at the American Academy of Neurology (AAN) 2023 Annual Meeting.

The Company believes that a vaccination strategy for the prevention or treatment of AD, compared to passive immunization with a therapeutic antibody, could present several potential advantages, including the potential for sustained anti-disease activity and ease of use for prevention in conjunction with diagnostic biomarkers, and fewer doses compared with chronic antibody treatment. An AD vaccine capable of inducing an effective antibody response against pathogenic Aβ could potentially be administered as a preemptive measure to at-risk individuals to prevent the symptomatic disease or given therapeutically to diagnosed patients to inhibit the progression of AD. Using computational modeling, ProMIS has identified conformational epitopes that are exposed on misfolded, toxic Aβ oligomers (AβO), the driver of disease, and not on monomers or plaque. In mouse preclinical studies, vaccination with a conformational AβO epitope conjugated to a carrier protein and delivered with adjuvant induced a strong, sustained antibody response with the desired oligomer selectivity.

"These encouraging data support our approach of immunization with a rationally designed vaccine consisting of an Aβ oligomer conformational B cell epitope conjugated to a carrier protein," said Johanne Kaplan, Ph.D., Chief Development Officer of ProMIS Neurosciences and first author of the presentation. "We look forward to advancing our goal of developing a safe and effective AD vaccine to induce a specific immune response against toxic Aβ oligomers."

In an oral presentation titled, "Rational design of a vaccine for Alzheimer's disease using computationally-derived conformational B cell epitopes to selectively target toxic amyloid-beta oligomers," mouse studies were conducted to assess the potential of ProMIS' vaccine candidate designed to induce AβO-restricted antibodies without eliciting potentially inflammatory T cell responses against Aβ in the brain (meningoencephalitis). The ProMIS

vaccine candidate, consisting of an AβO conformational peptide epitope conjugated to KLH as a carrier protein to provide T cell help, elicited robust and sustained antibody responses with either alum or QS-21 as the adjuvants. There were no potentially deleterious T helper cell responses to the conformational AβO peptide epitope, and T helper responses developed only against the KLH carrier protein. In addition, the serum antibodies elicited were selective for AβO with no detectable binding to monomers or plaque, which could reduce the risk of amyloid-related imaging abnormalities (ARIA) associated with plaque-binding antibodies. These findings support potential clinical development of a therapeutic vaccine for AD that could elicit an antibody response while reducing the risk of meningoencephalitis, as well as ARIA.

The slide presentation is available on the Posters and Publications page of the Company's website at www.promisneurosciences.com.

About ProMIS Neurosciences Inc.

ProMIS Neurosciences Inc. is a development stage biotechnology company focused on generating and developing antibody therapeutics selectively targeting toxic misfolded proteins in neurodegenerative diseases such as Alzheimer's disease (AD), amyotrophic lateral sclerosis (ALS) and multiple system atrophy (MSA). The Company's proprietary target discovery engine is based on the use of two complementary techniques. The Company applies its thermodynamic, computational discovery platform - ProMIS™ and Collective Coordinates - to predict novel targets known as Disease Specific Epitopes on the molecular surface of misfolded proteins. Using this unique approach, the Company is developing novel antibody therapeutics for AD, ALS and MSA. ProMIS has offices in Toronto, Ontario and Cambridge, Massachusetts. ProMIS is listed on Nasdaq and the Toronto Stock Exchange under the symbol PMN.

Forward-Looking Statements

Neither the TSX nor Nasdaq has reviewed and neither accepts responsibility for the adequacy or accuracy of this release. Certain information in this news release constitutes forward-looking statements and forward-looking information (collectively, "forward-looking information") within the meaning of applicable securities laws. In some cases, but not necessarily in all cases, forward-looking information can be identified by the use of forward-looking terminology such as "plans", "targets", "expects" or "does not expect", "is expected", "an opportunity exists", "is positioned", "estimates", "intends", "assumes", "anticipates" or "does not anticipate" or "believes", or variations of such words and phrases or state that certain actions, events or results "may", "could", "would", "might", "will" or "will be taken", "occur" or "be achieved". In addition, any statements that refer to expectations, projections or other characterizations of future events or circumstances contain forward-looking information. Specifically, this news release contains forward-looking information relating to targeting of toxic misfolded proteins that the Company believes may directly address fundamental AD pathology (including the belief and understanding that toxic oligomers of amyloid-beta are a major driver of AD) and have greater therapeutic potential due to reduction of off-target activity, ProMIS' pipeline, statements regarding a computationally-derived amyloid-beta (Aβ) vaccine for AD and the Company's vaccine candidate, management's belief that its patented platform technology has created an antibody candidate specific to toxic misfolded oligomers known to be present in Alzheimer's disease, and management's belief that this specificity may indicate greater therapeutic potential due

to lower off-target activity and reduce the risk of brain edema and microhemorrhages (ARIA) associated with plaque-binding antibodies. Statements containing forward-looking information are not historical facts but instead represent management's current expectations, estimates and projections regarding the future of our business, future plans, strategies, projections, anticipated events and trends, the economy and other future conditions. Forward-looking information is necessarily based on a number of opinions, assumptions and estimates that, while considered reasonable by the Company as of the date of this news release, are subject to known and unknown risks, uncertainties and assumptions and other factors that may cause the actual results, level of activity, performance or achievements to be materially different from those expressed or implied by such forward-looking information, including, but not limited to, the Company's ability to fund its operations and continue as a going concern, its accumulated deficit and the expectation for continued losses and future financial results. Important factors that could cause actual results to differ materially from those indicated in the forward-looking information include, among others, the factors discussed throughout the "Risk Factors" section of the Company's most recently filed annual information form available on www.SEDAR.com, in Item 1A of its Annual Report on Form 10-K for the year ended December 31, 2022 and the section entitled "Risk Factors" in its Post-Effective Amendment No. 1 to Form S-1, filed March 17, 2023, each as filed with the Securities and Exchange Commission. Except as required by applicable securities laws, the Company undertakes no obligation to publicly update any forward-looking information, whether written or oral, that may be made from time to time, whether as a result of new information, future developments or otherwise.

For further information:

Visit us at www.promisneurosciences.com

Please submit media inquiries to info@promisneurosciences.com.

For Investor Relations, please contact:
Stern Investor Relations
Suzanne Messere, Managing Director
suzanne.messere@sternir.com
Tel. 212-698-8801

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