March 29, 2023

Lead Therapeutic Candidate, PMN310, Demonstrates Enhanced Selectivity for Toxic Oligomers Compared to Other Amyloid-Beta-Directed Antibodies in Poster Presentation at AD/PD 2023

PMN310 demonstrated greater selectivity for target toxic oligomers over monomers compared to other amyloid-beta-directed antibodies. Greater selectivity of PMN310 for toxic oligomers indicates a potentially differentiated profile and supports further development

TORONTO, Ontario and CAMBRIDGE, Massachusetts, March 29, 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 new *in vitro* preclinical data supporting the differentiation of PMN310 from other amyloid-beta (Aβ)-directed antibodies at the International Conference on Alzheimer's and Parkinson's Disease and Related Neurological Disorders (AD/PD 2023).

Antibody therapies that target Aβ in AD continue to generate interest with recent approvals and new potential treatments in development. A large body of evidence suggests that soluble toxic Aβ oligomers, rather than Aβ monomers or plaque, are the principal driver of synaptic dysfunction, neuronal loss and cognitive decline in AD patients. However, it has been a challenge to specifically target toxic oligomers since they are the least abundant form of Aβ in the brain. In preclinical studies, ProMIS Neurosciences' lead candidate, PMN310, has demonstrated its ability to selectively target pathogenic Aβ oligomers without unproductive binding to non-toxic monomers or plaque.

"We believe these encouraging data help differentiate our lead therapeutic candidate, PMN310, from other Aβ-directed antibodies. As shown in our AD/PD poster, PMN310 selectively targeted toxic oligomers and avoided interaction with plaque and vascular deposits," said Johanne Kaplan, Ph.D., Chief Development Officer of ProMIS Neurosciences. "We believe that these data support clinical development of PMN310, and we are excited to submit an IND application in the coming weeks as we advance our plans to bring a next-generation therapy to patients suffering with Alzheimer's disease." Dr. Kaplan will be interviewed by VJNeurology during the AD/PD meeting. Links will be posted to the Events page of the ProMIS website once available.

In a poster presentation titled, “Differentiation of PMN310 from other amyloid-beta-directed antibodies: Ability to selectively target toxic brain oligomers despite competing monomers and plaque,” surface plasmon resonance was used to assess the binding of multiple Aβ-directed antibodies (PMN310, donanemab, aducanumab, lecanemab, crenezumab, solanezumab, gantenerumab) to a toxic oligomer-enriched low molecular weight fraction of soluble brain extract from AD patients, with and without pre-exposure to competing monomers. The antibodies that best avoided monomer competition and retained measurable binding to AD brain toxic oligomers (aducanumab, lecanemab, donanemab) have also generated positive results in clinical trials. Antibodies that could not overcome monomer competition have produced negative clinical trial results. In this side-by-side comparison in a nonclinical assay, PMN310 was the least impacted by monomer competition, resulting in an overall greater toxic oligomer binding level versus all comparators. Further, in contrast to the other Aβ-directed antibodies, PMN310 did not bind to plaque or vascular deposits in AD brain, suggesting that it may carry a reduced risk of dose-limiting ARIA (amyloid-related imaging abnormalities) side effects associated with plaque-binding antibodies.

The presentation is available on the Events 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”, “excited to,” “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 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, the submission of the Company's investigational new drug application and potential initiation of the Company's first-in-human study in 2023, subject to clearance by the U.S. Food and Drug Administration of its investigational new drug application, and its ability to enroll the requisite number of patients, dose each patient in the intended manner and progress the study, ProMIS' pipeline, 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 management's anticipated timing of enrollment of the first subject in our Phase 1a trial in the first half of 2023, the progression of earlier stage antibody candidates for ALS (PMN267) and MSA (PMN442). 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

Source: ProMIS Neurosciences Inc.