April 24, 2023

ProMIS Neurosciences Presents Preclinical Data Highlighting Targeting of Toxic Misfolded Proteins in Alzheimer's Disease and ALS at American Academy of Neurology Annual Meeting

- *Lead therapeutic candidate for Alzheimer's disease, PMN310, demonstrated selective binding and protection against toxic amyloid-beta oligomers*
- *Preclinical data support misfolded RACK1 as a potential target for ALS and FTLD-TDP*

TORONTO, Ontario and CAMBRIDGE, Massachusetts, April 24, 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 announced data supporting the receptor of activated C-kinase 1 (RACK1) as a potential target in ALS and frontotemporal lobar degeneration with TPD-43-immunoreactive pathology (FTLD-TDP), and updated preclinical data from the Company's lead candidate for AD, PMN310. The data were presented in poster presentations on April 23 at the 75th American Academy of Neurology (AAN) Annual Meeting in Boston, MA.

"We are pleased to share progress highlighting our ongoing effort to develop next-generation therapies for debilitating neurodegenerative disorders," said Gail Farfel, Ph.D., Chief Executive Officer of ProMIS Neurosciences. "We are excited to share the data differentiating our lead therapeutic candidate for Alzheimer's disease, PMN310, which exhibited characteristics in preclinical studies that may provide greater therapeutic potential and support a favorable tolerability profile compared to other amyloid-beta antibodies. AAN is also a great opportunity to present our data supporting the potential of misfolded RACK1 as a novel target for ALS and also FTLD-TDP, and our ability to generate antibodies that selectively bind aggregated RACK1 while avoiding benign isoforms."

AAN Poster Details

Title: Protection Against Toxic Amyloid-beta Oligomers by PMN310, a Monoclonal Antibody Rationally Designed for Greater Therapeutic Potency in Alzheimer's Disease
Session: P1: Aging and Dementia: Basic Science (abstract #4597)
Presenter: Johanne Kaplan, Ph.D.
Date & Time: April 23, 2023 from 8:00 – 9:00 a.m. ET

Evidence suggests that soluble toxic amyloid-beta (Aβ) oligomers, rather than Aβ monomers

or plaque, are a primary driver of synaptic dysfunction, neuronal loss and cognitive decline in AD patients. However, it is difficult to specifically target toxic oligomers since they are much less abundant than other forms of Aβ in the brain. In the poster presented, clinical activity of various Aβ antibodies was shown to correlate with the ability to avoid monomer competition and retain binding to AD brain toxic oligomers. ProMIS' lead therapeutic candidate, PMN310, showed selective binding to oligomers and was the least impacted by monomer competition compared to other Aβ-directed antibodies. Additionally, PMN310's lack of binding to Aβ plaque observed in preclinical studies may reduce the risk of brain edema and microhemorrhages (ARIA) associated with plaque-binding antibodies. PMN310 protected memory function in two rodent models of AD, supporting further evaluation of the candidate as a potential therapeutic option for the treatment or prevention of AD.

Title: RACK1 Knockdown Is a Potential Therapeutic Target in ALS and FTLD-TDP
Session: P1: Aging and Dementia: Basic Science (abstract #3494)
Presenter: Neil Cashman, M.D.
Date & Time: April 23, 2023 from 8:00 – 9:00 a.m. ET

ProMIS has evaluated RACK1 as a potential target for ALS and FTLD-TDP. These neurodegenerative disorders are characterized by the formation of pathogenic aggregates of misfolded TAR DNA binding protein 43 (TDP-43) inside neurons which have been observed to co-aggregate with misfolded RACK1, a ribosomal protein. In a cell system, the misfolded form of RACK1 was detected by ProMIS antibodies selective for this RACK1 isoform.

The poster presented describes how RACK1 knockdown was able to reduce TDP-43 aggregation as well as alleviate the TDP-43-induced global suppression of translation *in vitro*. Knocking down RACK1 also reduced retinal and motor neuron neurodegeneration in D. melanogaster *in vivo*. These preclinical findings support misfolded RACK1 as a potential therapeutic target for TDP-43 proteinopathy in non-SOD1 and non-FUS ALS as well as FTLD-TDP.

Both poster presentations are available on thePoster 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, 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, and the potential of misfolded RACK1 as a potential therapeutic target. 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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