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ProMIS Neurosciences Reports New Milestones in Potential Therapeutic Approaches for Amyotrophic Lateral Sclerosis (ALS)

TORONTO, Ontario and CAMBRIDGE, MA, April 28, 2022 (GLOBE NEWSWIRE) -- ProMIS Neurosciences, Inc. (TSX: PMN) (OTCQB: ARFXF), a biotechnology company focused on the discovery and development of potential therapeutics targeting ***misfolded proteins*** such as toxic oligomers implicated in the development of neurodegenerative diseases, announced today new milestones in potential therapeutic approaches for ALS.

Almost all cases of ALS, and about half of cases of the related disease frontotemporal degeneration (FTD), feature intracellular aggregates of the protein TDP-43 in the brain and spinal cord. Although normal TDP-43 protein is critical for the survival of neurons, misfolded aggregates of TDP-43 possess many neurotoxic activities and are believed to be a driver of disease. Using its discovery platform, ProMIS generated high-affinity monoclonal antibodies that are selective for the misfolded, toxic form of TDP-43 and has nominated monoclonal antibody PMN267 as the lead candidate based on its binding profile and activity in cell systems. Recent data generated by two independent sources have now provided additional support for the therapeutic potential of PMN267.

Dr. Gene Yeo's laboratory at the University of California San Diego has shown that an "intrabody" version of PMN267 delivered inside cells via a gene therapy vector significantly reduced the amount of misfolded TDP-43 aggregates in human motor neurons derived from ALS patients, the cell type predominantly affected in ALS.

In an aggressive mouse model of ALS/FTD conducted at a contract research organization, testing of PMN267 as an injectable antibody treatment also produced evidence for protection against disability. These results are in line with reports indicating that antibodies with effector function can be taken up inside neurons and trigger degradation of their target, in this case toxic TDP-43 aggregates.

ProMIS CSO Dr. Neil Cashman was pleased by the results, saying "these are encouraging findings that support the activity of PMN267 as a conventional antibody and as an intrabody constructed from PMN267". Dr. Larry Altstiel, ProMIS' CMO, said "this is promising work to be moved forward as rapidly as possible to address the tragic human disease ALS."

ProMIS also notes the progress made in targeting another ALS/FTD target called RACK1 (receptor for activated C kinase 1). ProMIS' encouraging preclinical data implicating RACK1 in ALS were presented recently as a poster at the American Academy of Neurology in Seattle, entitled "RACK1 Knockdown Alleviates TDP-43-Associated Global Translational

Suppression in vitro and Neurodegeneration in vivo."

About ProMIS Neurosciences
ProMIS Neurosciences, Inc. is a development stage biotechnology company focused on discovering and developing therapeutics selectively targeting toxic misfolded oligomers implicated in the development and progression of neurodegenerative diseases, in particular Alzheimer's disease (AD), amyotrophic lateral sclerosis (ALS) and Parkinson's disease (PD). The Company's proprietary target discovery engine is based on the use of two complementary computational modeling techniques. The Company applies its molecular dynamics, computational discovery platform -ProMIS™ and Collective Coordinates - to predict novel targets known as Disease Specific Epitopes on the molecular surface of misfolded proteins. ProMIS is headquartered in Toronto, Ontario, with offices in Cambridge, Massachusetts. ProMIS is listed on the Toronto Stock Exchange under the symbol PMN, and on the OTCQB Venture Market under the symbol ARFXF

To learn more, visit us at www.promisneurosciences.com, follow us on Twitter and LinkedIn

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