

## ProMIS Neurosciences Identifies Novel Antibody Drug Candidates for Parkinson's Disease

Unique discovery platform generates new antibody candidates that block a root cause of Parkinson's Disease

TORONTO and CAMBRIDGE, MA, Oct. 11, 2018 /PRNewswire/ - ProMIS Neurosciences, Inc. (TSX: PMN) (OTCQB: ARFXF), a biotechnology company focused on the discovery and development of antibody therapeutics targeting toxic oligomers implicated in the development of neurodegenerative diseases, today announced the identification of several potential antibody therapeutic candidates aimed at selectively targeting toxic oligomers of the protein α-synuclein, considered a root cause of Parkinson's disease (PD).



"Using our unique discovery platform, we were able to identify several novel targets displayed on toxic oligomers of  $\alpha$ -synuclein and generate antibody candidates capable of protecting brain neurons against such toxic oligomers in vitro," stated ProMIS Executive Chairman Eugene Williams. "We now look forward to further validation and selection of the most promising candidates to move forward in development for PD. We see our emerging Parkinson's disease program as an ideal pharma partnering opportunity."

ProMIS has retained Red Sky Partners, LLC of Cambridge, Mass., to support partnering efforts for its novel antibody candidates for Parkinson's disease.

In vitro studies, performed at Neuron Experts (Marseille, France), a specialized contract research organization, investigated the neuroprotective effect of ProMIS' antibodies on rat primary dopaminergic neurons injured by exposure to toxic oligomers of  $\alpha$ -synuclein, an in vitro model of PD. In the test, several ProMIS antibodies, selectively targeting toxic oligomers of  $\alpha$ -synuclein, significantly blocked the death of neurons induced by these oligomers.

Commenting on these results, Dr. James Kupiec, ProMIS Chief Medical Officer stated: "I am

truly impressed with the outstanding ability and efficiency of the ProMIS platform to predict novel therapeutic targets and generate highly selective therapeutic antibodies for multiple neurodegenerative diseases. Having recently joined ProMIS from my prior position as VP, Global Clinical Leader for Parkinson's Disease at Pfizer, I expect further development of these antibody candidates will offer real hope for disease-modifying therapy in PD."

Parkinson's disease is a progressive neurodegenerative disorder characterized by loss of dopaminergic neurons located in the midbrain and the presence of intraneuronal inclusions (Lewy bodies/Lewy neurites), consisting mainly of aggregates of  $\alpha$ -synuclein that can propagate from cell to cell. Recent published data indicate  $^{1,2,3,4}$  that a-synuclein toxicity resides primarily with these aggregated, oligomeric forms of the protein.

Pursuant to its expanded license agreement with the University of British Columbia, ProMIS holds exclusive, worldwide license to these novel therapeutic targets and antibodies; patent filings have been submitted to the United States Patent Office.

References: <sup>1</sup>Fusco et al, 2017, Science; <sup>2</sup>Choi et al, 2018, Cell Reports; <sup>3</sup>Peelaerts et al, 2015, Nature; <sup>4</sup>Games et al, 2014, J Neuroscience

## **About ProMIS Neurosciences**

ProMIS Neurosciences, Inc. is a development stage biotechnology company focused on discovering and developing antibody therapeutics selectively targeting toxic 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 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 precision medicine approach, the Company is developing novel antibody therapeutics for AD, ALS and PD. 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.

## **About Neuron Experts**

Neuron Experts is a Contract Research Organization specializing in the study of neuroactive compounds. The company uses its own tests based on primary neuronal cell cultures modeling neurodegenerative diseases and neuronal impairment-induced skin disorders.

For further information about ProMIS Neurosciences, please consult the Company's website at: <a href="https://www.promisneurosciences.com">www.promisneurosciences.com</a>

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