

Aptinyx Awarded Up to \$2.85 Million in NIH Grants to Research NMDA Receptor Modulation for the Treatment of Neuropathic Pain and Age-Related Cognitive Decline

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Evanston, Ill., November 10, 2016 – Aptinyx Inc., a biopharmaceutical company developing novel modulators of the N-methyl-D-aspartate (NMDA) receptor for the treatment of challenging neurologic disorders, today announced it has been awarded up to \$2.85 million in research grants from divisions of the National Institutes of Health (NIH). The funding comprises three Small Business Innovation Research (SBIR) grants and will support studies conducted by Aptinyx researchers and collaborators to evaluate novel compounds for neuropathic pain and age-related cognitive decline.

"These NIH grants demonstrate the breadth of our NMDA receptor modulation platform and its potential to have an impact on many different diseases and disorders," said Joseph Moskal, Ph.D., chief scientific officer of Aptinyx. "Based on years of research into the role of NMDA modulation in enhancing synaptic plasticity, we know that our approach can have broad and diverse applications. We are eager to expand research into these indications, for which there is a clear unmet need for more effective and innovative treatment options."

The awarded grants include:

- A grant from the National Institute of Neurological Disorders and Stroke will support research and development of Aptinyx compounds for the treatment of neuropathic pain. First-year funding of \$1.25 million has been awarded, with an additional \$1.09 million recommended for year two, contingent upon availability of NIH funds and project progress.
- A grant from the National Institute on Aging will fund preclinical research of the effects of Aptinyx NMDA receptor modulators on memory loss and cognitive function in the aging brain. Age-related memory loss and cognitive decline is a growing public health issue that will be magnified in the coming decades by increasing life expectancies and an aging population.
- A grant from the National Cancer Institute funds Aptinyx's preclinical investigation of the effects of Aptinyx NMDA receptor modulators on neuropathic pain associated with chemotherapy-induced peripheral neuropathy (CIPN). CIPN is a common side effect of widely used chemotherapy agents, causing severe pain in a large proportion of patients and often causing patients to discontinue chemotherapy.

Aptinyx's chemistry and discovery platform has generated numerous small-molecule modulators of the NMDA receptor, including lead drug candidate NYX-2925. In studies to date, these molecules have demonstrated high oral bioavailability, diverse NMDA receptor subtype binding profiles, and differentiated efficacy across preclinical models of various nervous system conditions. The company's compounds are designed to enhance synaptic plasticity — or strengthen the network for neural cell communication — a clinically validated mechanism with therapeutic potential in multiple challenging neurologic disorders.

Aptinyx is currently conducting a first-in-human Phase 1 study of NYX-2925 in healthy volunteers and has selected the indication of neuropathic pain associated with diabetic peripheral neuropathy for future development. The U.S. Food and Drug Administration recently granted Fast Track designation to the development program.

About The National Institutes of Health

NIH, the nation's medical research agency, includes 27 institutes and centers and is a component of the U.S. Department of Health and Human Services. NIH is the primary federal agency conducting and supporting basic, clinical and translational medical research, and is investigating the causes, treatments and cures for both common and rare diseases.

About Aptinyx

Aptinyx Inc. is a biopharmaceutical company focused on discovery and development of transformative therapies for challenging neurologic disorders. Aptinyx has a proven platform for discovering compounds that enhance synaptic plasticity, or strengthen the network for neural cell communication. Molecules discovered by Aptinyx achieve this through a novel mechanism that modulates NMDA receptors, resulting in drugs that are both highly effective and well tolerated. This mechanism has applicability across a number of disorders of the brain and nervous system. For more information, visit www.aptinyx.com.