NEWS RELEASE

Aptinyx Reports Results from Phase 2 Study of NYX-458 in Cognitive Impairment Associated with Parkinson's Disease and Dementia with Lewy Bodies and Provides Pipeline and Corporate Update

2/27/2023

NYX-458 did not demonstrate sufficient efficacy in the Phase 2 study to support further development by Aptinyx

The company will undertake cost-cutting measures and explore strategic alternatives

The company will terminate its ongoing study of NYX-783 in PTSD and analyze the data available to date

EVANSTON, Ill.--(BUSINESS WIRE)-- Aptinyx Inc. (Nasdaq: APTX), a clinical-stage biopharmaceutical company developing transformative therapies for the treatment of brain and nervous system disorders, today announced results from a Phase 2 clinical study evaluating the effects of NYX-458 in patients with cognitive impairment associated with Parkinson's disease and dementia with Lewy bodies. Across the overall study population, NYX-458 did not demonstrate clinically meaningful improvements over placebo on the study's efficacy endpoints. The results do not support further development of NYX-458 by the company.

"We are very disappointed that the results of this Phase 2 study did not validate the therapeutic potential observed previously in preclinical studies of NYX-458 in models of cognitive impairment," said Andy Kidd, M.D., president and chief executive officer of Aptinyx. "We appreciate the dedication and contributions of patients, investigators, and the extensive team that worked on the study. We intend to focus our efforts on maximizing the value of our assets, closing our study of NYX-783 in PTSD to enable an early analysis of the data, and exploring strategic alternatives to support the advancement of our NMDA receptor modulation platform."

The first-in-patient Phase 2 study was a randomized, double-blind, parallel-design, placebo-controlled study in 99

patients with mild cognitive impairment or mild dementia associated with Parkinson's disease or Dementia with Lewy Bodies. The study evaluated daily oral dosing of a 30 mg dose level of NYX-458 compared to placebo over a 12-week period. Across the overall study population, NYX-458 did not demonstrate clinically meaningful improvements over placebo on the study's efficacy endpoints. These endpoints evaluated everyday function using the Penn Parkinson's Daily Activities Questionnaire (PDAQ-15) and the Everyday Cognition-12 Scale (ECog-12), as well as cognitive performance using a battery of computerized neurocognitive tests. NYX-458 was well-tolerated in the study. The results overall do not support further advancement of the development program by Aptinyx.

The company intends to undertake cost-cutting measures to preserve capital and support the exploration of strategic alternatives. Consistent with these measures, the company will terminate its ongoing Phase 2b study of NYX-783 in post-traumatic stress disorder (PTSD) and analyze the data to dateto inform the next steps for the program.

About Aptinyx

Aptinyx Inc. is a clinical-stage biopharmaceutical company focused on the discovery, development, and commercialization of proprietary synthetic small molecules for the treatment of brain and nervous system disorders. Aptinyx has a platform for discovery of novel compounds that work through a unique mechanism to modulate—rather than block or over-activate—NMDA receptors and enhance synaptic plasticity, the foundation of neural cell communication. The company's proprietary chemistry platform has generated and continues to yield a rich and diverse array of small-molecule NMDA receptor modulators with the potential to treat various neurologic disorders. For more information, visit **www.aptinyx.com**.

Forward-Looking Statements

Statements contained in this press release regarding matters that are not historical facts are "forward-looking statements" within the meaning of the Private Securities Litigation Reform Act of 1995. Because such statements are subject to risks and uncertainties, actual results may differ materially from those expressed or implied by such forward-looking statements. Such statements include, but are not limited to, statements regarding the company's business plans and objectives, plans to explore strategic alternatives, the therapeutic potential of the discovery platform, and implementation of cost cutting measures. Risks that contribute to the uncertain nature of the forward-looking statements include: the company's ability to execute on its strategy; the company's estimates regarding expenses, future revenue, and capital requirements; risks associated with volatility and uncertainty in the capital markets for biotechnology companies; whether we will be able to pursue a strategic transaction, or whether any transaction, if pursued, will be completed; as well as those risks and uncertainties set forth in the company's most recent periodic filings with the Securities and Exchange Commission, including our Annual Report on Form 10-K for the year ended December 31, 2021 and most recently filed periodic reports. All forward-looking statements contained in this press release speak only as of the date on which they were made. Aptinyx undertakes no

obligation to update such statements to reflect events that occur or circumstances that exist after the date on which they were made.

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