

NEWS RELEASE

Aptinyx Highlights Key Goals and Anticipated Development Milestones for 2022

1/6/2022

Catalyst-rich year with data readouts expected from three Phase 2 studies across chronic pain and cognitive impairment development programs

Advancing PTSD development program with initiation of Phase 2b studies

Strong balance sheet expected to fund Phase 2 readouts from each ongoing development program

Company will host Portfolio Review Event on February 9, 2022, with focus on development of NYX-2925 for chronic pain

EVANSTON, III.--(BUSINESS WIRE)-- Aptinyx Inc. (Nasdaq: APTX), a clinical-stage biopharmaceutical company developing transformative therapies for the treatment of brain and nervous system disorders, today provided a corporate update and highlighted development milestones anticipated in 2022.

"Following a year of extraordinary execution, Aptinyx enters 2022 positioned for transformational growth, with a robust slate of Phase 2 study readouts fast approaching," said Andy Kidd, M.D., president and chief executive officer of Aptinyx. "Our four clinical development programs currently underway highlight the broad potential of our pipeline of novel, rationally-designed NMDA receptor modulators across a range of major neurological indications. The multiple data catalysts upcoming represent key milestones in support of our goal of establishing Aptinyx as a leading neuroscience company and improving the lives of millions of people living with serious nervous system disorders."

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Clinical Programs and Anticipated 2022 Milestones

NYX-2925 for chronic pain – Phase 2b readouts expected in 2Q and mid-year 2022: NYX-2925 is a novel oral NMDA receptor positive allosteric modulator currently in Phase 2b clinical development for the treatment of painful DPN and fibromyalgia.

- In late October 2021, Aptinyx announced the completion of enrollment in its Phase 2b study of NYX-2925 in 229 patients with painful diabetic peripheral neuropathy (DPN). The company anticipates reporting results from the study in early to mid second quarter 2022.
- The company's Phase 2b study of NYX-2925 in 300 patients with fibromyalgia is on track to report results in mid 2022.

NYX-458 for cognitive impairment – Phase 2 readout expected in 2H 2022: NYX-458 is a novel oral NMDA receptor positive allosteric modulator currently in Phase 2 clinical development for the treatment of cognitive impairment associated with Parkinson's disease and dementia with Lewy bodies.

• Enrollment is progressing in an exploratory Phase 2 study of NYX-458 in 100 patients with cognitive impairment associated with Parkinson's disease and dementia with Lewy bodies. The company anticipates reporting data from the study in the second half of 2022.

NYX-783 for PTSD – Phase 2b readout expected in 2023: NYX-783 is a novel, oral NMDA receptor positive allosteric modulator currently in Phase 2b clinical development for the treatment of post-traumatic stress disorder (PTSD).

- In December 2021, Aptinyx initiated a Phase 2b study evaluating 50 mg QD of NYX-783 in 300 patients with PTSD. The company anticipates reporting data from the study in the second half of 2023.
- A Phase 2b study evaluating a higher 150 mg QD dose level of NYX-783 in 300 patients with PTSD is on track for initiation in the first quarter of 2022.

Cash Position and Financial Guidance

Aptinyx ended the fourth quarter of 2021 with approximately \$106 million in cash and cash equivalents (unaudited), with access to additional capital under a growth capital credit facility with K2 HealthVentures. The company expects its current cash balance and guaranteed available cash to fund Phase 2 readouts from each of its ongoing development programs and support anticipated operations into 2023.

Upcoming Q1 2022 Presentations and Discussions

- January 10, 2022 Virtual Presentation at the H.C. Wainwright 2022 BioConnect Conference
- January 13, 2022 Virtual presentation at the 40th Annual J.P. Morgan Healthcare Conference

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- February 9, 2022 Aptinyx Portfolio Review Event, featuring Dr. Richard Rauck, board certified physician in pain medicine and anesthesiology at Carolinas Pain Institute and medical director for The Center for Clinical Research based in Winston-Salem
- February 14-15, 2022 Virtual fireside chat at the 11th Annual SVB Leerink Global Healthcare Conference
- March 7-9, 2022 Neuropysch panel discussion at the 42nd Annual Cowen Health Care Conference

About NYX-2925

NYX-2925 is a novel oral NMDA receptor positive allosteric modulator currently in Phase 2 clinical development for the treatment of chronic pain. In clinical studies, NYX-2925 has demonstrated activity that affects central pain processing, resulting in alleviation of pain and other symptoms associated with chronic pain conditions. NYX-2925 has also exhibited a favorable safety and tolerability profile across a wide dose range in clinical studies to date. The U.S. Food and Drug Administration has granted Fast Track designation to Aptinyx's development of NYX-2925 for the treatment of neuropathic pain associated with DPN.

About NYX-783

NYX-783 is a novel oral NMDA receptor positive allosteric modulator currently in Phase 2 clinical development for the treatment of post-traumatic stress disorder (PTSD). In preclinical studies of NYX-783, therapeutically relevant enhancement of extinction learning has been observed in models of conditioned fear and substance abuse. In an exploratory Phase 2 clinical study, administration of NYX-783 resulted in clinically meaningful improvements on PTSD symptoms. NYX-783 has also exhibited a favorable safety and tolerability profile across a wide dose range in clinical studies to date. The U.S. Food and Drug Administration has granted Fast Track designation to the development of NYX-783 for the treatment of PTSD.

About NYX-458

NYX-458 is a novel oral NMDA receptor positive allosteric modulator currently in Phase 2 clinical development for the treatment of cognitive impairment associated with Parkinson's disease and dementia with Lewy bodies. NYX-458 has been shown to reverse cognitive deficits in non-human primates in a model that is highly translatable to Parkinson's disease in humans. NYX-458 has also been shown to improve cognitive performance across various other preclinical models of neurodegeneration. In a Phase 1 clinical study, NYX-458 exhibited a favorable safety and tolerability profile across a wide dose range and achieved CNS exposures consistent with exposures observed at efficacious preclinical dose levels.

About Aptinyx

Aptinyx Inc. is a clinical-stage biopharmaceutical company focused on the discovery, development, and

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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 has three product candidates in clinical development in central nervous system indications, including chronic pain, post-traumatic stress disorder, and cognitive impairment. Aptinyx is also advancing additional compounds from its proprietary discovery platform, which continues to generate a rich and diverse pipeline of small-molecule NMDA receptor modulators with the potential to treat an array of 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, including future plans, expectations, and potential therapeutic effects of its development candidates, expectations regarding the design, implementation, timing, and success of its current and potential clinical studies, the timing for the company's receipt and announcement of data, the company's belief in the potential for upcoming catalysts and milestones to be transformational and to support our mission, the company's views as to the potential profile and benefit of our product candidates, and expectations regarding the company's cash runway. Risks that contribute to the uncertain nature of the forward-looking statements include: the effect of COVID-19 on our business and financial results, including with respect to disruptions to our clinical trials, business operations, and ability to raise additional capital; the success, cost, and timing of the company's product candidate development activities and planned clinical studies; the company's ability to execute on its strategy; delays of any current preclinical studies; the company's estimates regarding expenses, future revenue, and capital requirements; as well as those risks and uncertainties set forth in the company's most recent annual report on Form 10-K and subsequent filings with the Securities and Exchange Commission. 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.

Source: Aptinyx Inc.

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Source: Aptinyx Inc.