November 16, 2022

Vyant Bio Presents Key Takeaways from Platform and Poster Presentations at Neuroscience 2022 Hosted by the Society for Neuroscience

"Targeting specific functional rescue in a Rett patient cortical organoid disease model"

CHERRY HILL, N.J., Nov. 16, 2022 (GLOBE NEWSWIRE) -- Vyant Bio, Inc. ("Vyant Bio" or "Company") (Nasdaq: VYNT) is an innovative biotechnology company reinventing drug discovery for complex neurodevelopmental and neurodegenerative disorders. The Company's proprietary central nervous system ("CNS") drug discovery platform combines human-derived organoid models of brain disease, scaled biology, and machine learning to identify and validate drug targets and therapeutic candidates. Today, Vyant Bio made two platform and poster presentations during the Rett Nanosymposium at Neuroscience 2022, hosted by the Society for Neuroscience, which was held November 12th-16th at the San Diego Convention Center. In the first presentation, the Company announced the identification of a therapeutic candidate for Rett syndrome with a differentiated mechanism of action advancing into clinical trials. In the second, the Company presented a multiparametric analysis of coordinated network activity revealing target-specific functional rescue in a human iPSC-derived organoid model of Rett syndrome. The presentations were delivered, respectively, by Cassiano Carromeu, PhD, Vyant Bio's Director of R&D, and Andrew LaCroix, PhD, Vyant Bio's Lead Screening Scientist.

Title: Identification of a therapeutic candidate for Rett syndrome with a differentiated mechanism of action using a patient-derived cortical organoid screening platform
Authors: Cassiano Carromeu (Presenting), Nicholas Coungeris, Neha Sodhi, Huda Ahmed, Megan Seibel, Kendra Prum, Robert Fremeau, and Andrew LaCroix
Session: Rett Syndrome
Date / Time: November 16, 2022: 9:00 am PT

Title: Multiparametric analysis of coordinated network activity reveals target-specific functional rescue in a human iPSC-derived organoid model of Rett syndrome
Authors: Andrew LaCroix (Presenting), Huda Ahmed, Nicholas Coungeris, Cameron Joseph, Neha Sodhi, Cassiano Carromeu, Robert Fremeau
Session: Rett Syndrome
Date / Time: November 16, 2022: 9:30 am PT

The platform presentations can be found at: https://www.vyantbio.com/.

Rett syndrome (RTT) is a progressive neurodevelopmental disorder caused by mutations in the X-linked gene *MECP2*. One of the challenges developing therapeutics for RTT has been the lack of a screening system that recapitulates the underlying human disease

pathophysiology. Vyant Bio developed an *in vitro* human RTT cortical organoid platform that exhibits abnormal functional neuronal network activity that can be recorded in high-throughput, providing a stable foundation for high-throughput drug screening. Functional screening of a targeted compound library developed for RTT by the International Rett Syndrome Foundation (IRSF) identified several known inhibitors of acetylcholinesterase (AChE) and histone deacetylases that rescued the functional RTT disease phenotype. Vyant Bio further explored the rescue potential of donepezil, an FDA-approved compound that we prioritized as a potential repurposing candidate for RTT, VYNT 0126. Donepezil rescued the RTT disease phenotype at concentrations known to be achieved in the human brain after chronic treatment correlating with near complete AChE inhibition. These findings are consistent with literature support for cholinergic deficits in RTT patients and donepezil-based rescue in a mouse RTT model (reviewed in Ballinger et al., 2019). The Company observed that donepezil appears to exhibit a distinct mechanism of action from the most advanced RTT clinical development candidates. Based on these findings, Vyant Bio, with the support and encouragement of the Clinical Trial Committee of the International Rett Syndrome Foundation (IRSF) is pursuing the clinical development of donepezil for the treatment of pediatric and adult RTT patients with a mutation in the *MECP2* gene.

Dr. Robert T. Fremeau, PhD, Vyant Bio's Chief Scientific Officer, said "we are excited by the opportunity to present our proprietary CNS drug discovery platform to one of the premiere gatherings of scientists and physicians specializing in the area of neuroscience research and innovation. By utilizing our proprietary CNS drug discovery platform, we will be able to successfully demonstrate that we can identify and validate drug targets and therapeutic candidates for the treatment of complex neurodevelopmental and neurodegenerative disorders. I am pleased to announce that on November 14, 2022 we submitted a clinical trial application with the Alfred Hospital Human Research Ethics Committee (HREC) to conduct a phase 2 proof-of-concept clinical trial for VYNT-0126 in adult RTT patients in Australia. In addition, we received acknowledgment that the FDA has accepted our request for a pre-IND meeting, to provide feedback and guidance for our clinical development plan for this program by December 27, 2022. These represent important milestones for Vyant Bio as we strive to establish the value of our proprietary CNS drug discovery platform to discover novel therapeutics for CNS genetic diseases that can potentially halt disease progression or perhaps, even cure disease."

ABOUT THE SOCIETY FOR NEUROSCIENCE

The Society for Neuroscience is a professional society, headquartered in Washington, DC, for basic scientists and physicians around the world whose research is focused on the study of the brain and nervous system. It is especially well known for its annual meeting, consistently one of the largest scientific conferences in the world.

ABOUT VYANT BIO, INC.

Vyant Bio, Inc. ("Vyant Bio" or the "Company") (Nasdaq: VYNT) is an innovative biotechnology company focused on identifying unique biological targets and novel and repurposed therapeutics for treating the debilitating neurodevelopmental and neurodegenerative disorders for which there are no current therapies. Vyant Bio has built a platform of therapeutics seeking to treat neurodevelopmental and neurodegenerative diseases, with current programs targeting Rett Syndrome ("Rett"), CDKL5 Deficiency Disorders ("CDD"), and familial Parkinson's Disease. The Company's approach to drug

discovery integrates human-derived biology with artificial intelligence and machine learning technologies to de-risk candidate selection, with the goal of improving the potential effectiveness of drugs discovered earlier in the development cycle. Vyant Bio's management believes that drug discovery needs to progressively shift to more efficient methods as the widely used models for predicting safe and effective drugs have under-performed, as evidenced by the significant time and cost of bringing novel drugs to patients. By combining sophisticated data science capabilities with highly functional human cell derived disease models, Vyant Bio seeks to leverage its current ability to screen and test therapeutic candidates, and create a unique approach to assimilating data that supports decision making iteratively throughout the discovery phase of drug development to identify both novel and repurposed CNS therapeutic candidates.

For more information, please visit or follow Vyant Bio at:
Internet: www.vyantbio.com
LinkedIn: https://www.linkedin.com/company/vyant-bio
Twitter: @VyantBio

Forward Looking Statements:

This press release contains forward-looking statements within the meaning of the Private Securities Litigation Reform Act of 1995. All statements pertaining to Vyant Bio, Inc.'s expectations regarding future financial and/or operating results, the efficacy of our drug screening and discovery process, and potential for our services, future revenue or growth in this press release constitute forward-looking statements. Any statements that are not historical fact (including, but not limited to, statements that contain words such as "will," "believes," "plans," "anticipates," "expects," and "estimates") should also be considered to be forward-looking statements. Forward-looking statements involve risks and uncertainties, including, without limitation, risks inherent in our attempts to discover drug candidates, partner with pharmaceutical and other biotechnology companies, achieve profitability, adapt to the global coronavirus pandemic, raise capital to meet our liquidity needs, and other risks discussed in the Vyant Bio, Inc. Form 10-K for the year ended December 31, 2021, and any subsequent filings with the Securities and Exchange Commission. These forward-looking statements speak only as of the date hereof. Vyant Bio disclaims any obligation to update these forward-looking statements.

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