Vyant Bio Issues Letter to Shareholders

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Cherry Hill, NJ, March 01, 2022 (GLOBE NEWSWIRE) -- Vyant Bio, Inc. (“Vyant Bio”, the “Company”) (Nadsaq:VYNT), is an innovative biotechnology company focused on identifying unique biological targets and novel and repurposed therapeutics. Today Vyant Bio released a Letter to Shareholders from Chief Executive Officer, Jay Roberts. The complete letter follows.

Dear Fellow Shareholders,

As we enter 2022, we are beginning to see the benefits of our 2021 strategic actions to transform Vyant Bio into a pure-play drug discovery and development biotechnology company. Based on this transformation, I believe we are now well-positioned to pursue the discovery and development of repurposed and novel therapeutics to treat neurological developmental and degenerative diseases such as for Rett Syndrome (“Rett”), CDKL5 Deficiency Disorders (“CDD”), and Parkinson’s Disease. We are incorporating the use of quantitative biomarkers that we believe are unique to our Rett and CDD programs that should provide meaningful human-biology-derived, preclinical signals of potential drug efficacy before the commencement of clinical trials. We enter the new year with approximately $20 million of cash, a capable and talented scientific team, a focused therapeutic interest, and three well-developed strategic partnerships, all thoughtfully assembled to position us to advance patient care as well as to build and grow shareholder value in the coming months and years ahead.

Focused Strategy

With the StemoniX and Cancer Genetics merger completed in early 2021, Vyant Bio was created to use its proprietary human-cell-based microBrain® and computer modeling platform, AnalytiX™, to identify compounds that target neurological degenerative and developmental disorders. We enter

2022 focused on cost efficiency and effectively bringing a repurposed drug candidate into clinical trials in the first half of 2023. Our first two novel drug candidates are expected to enter clinical trials in the second half of 2023.

Our current pipeline follows:

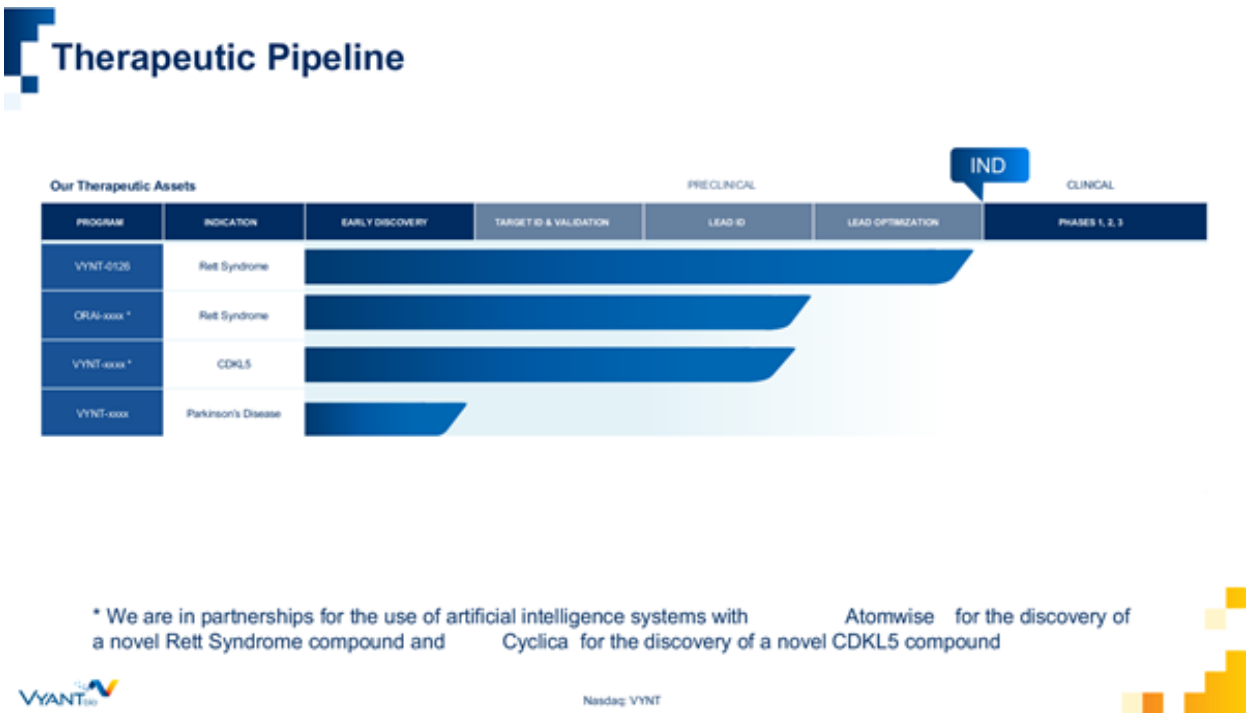

Image: Vyant Bio's Therapeutic Pipeline

As of this writing, there are no approved therapeutics for Rett and CDD, thereby highlighting the complexity of these diseases and the opportunities we are pursuing. To date, we have identified unique biological targets and several compounds that favorably affect the biomarkers we have identified in our disease-specific human organoid models (although the impact on humans is still unknown at this juncture). Our first program with a repurposed drug (VYNT 0126) should serve to assess whether we can successfully use our integrated microBrain and AnalytiX platform to discover and develop drugs that could provide treatment options to benefit patients who suffer from these debilitating, rare diseases.

By focusing our efforts on central nervous system ("CNS") single-gene mutations that cause "monogenetic" disorders and by using cells directly from the patient population in these rare CNS genetic disorders to create disease-specific organoid brains, we believe we have improved the chances of success in the clinic. Our scientific team first developed human organoid models of brain disease in 2015, and today we have a proven and proprietary method for the standardization of cell growth to assure the production of consistent and reliable data relating to how various drug candidates affect these disease models. Further, we have established the ability to screen thousands of drug candidates against a highly repeatable and quantifiable set of biomarker-derived recovery criteria. Our quantifiable proprietary biomarker uses a screening device that replicates an electroencephalogram ("EEG") readout of our 3-D microBrain® platform which measures and differentiates brainwave activity on well-defined, patient-derived, diseased

organoids compared with healthy phenotypic models. Clinical trials will indicate whether our measured impact on brain-wave activity in our organoid models offers some benefit to patients.

We then plan to use our platform to accelerate the discovery and development of other CNS monogenetic diseases such as different forms of familial Parkinson's Disease caused by mutations in specific genes that also play a role in the pathophysiology of the more common sporadic CNS diseases.

2021 Accomplishments

Patient Stem Cell-Derived Organoid Models of Brain Disease Capture Relevant Genetics, Targets, and Cell Types

2021 was a year when we focused on building our foundation for the future as we prepared our strategic initiatives for 2022 and beyond. Among the actions we took last year was the completion of our Rett and CDD microBrain disease models for high-throughput screening to support our own R&D programs. This has allowed us to complete several rounds of screening on artificial intelligence ("AI")-generated novel compounds, based on novel scaffolds, that show dose-dependent biomarker response in our models. These results are at the core of leading us to the identification of specific compounds to take forward into the clinic, which we plan to announce later in 2022 once our intellectual property/patent work is complete and final selections are made of our lead candidates.

AnalytiX, Our Machine Learning ("ML") Technology Platform

AnalytiX is our proprietary technology platform that is purpose-built for the processing, aggregation, and storage of very large data files containing digital images of biological activity, such as derived from our microBrains, for use in our downstream ML models. We have developed an efficient process to (i) translate drug experiment designs from the lab into machine readable formats, (ii) process large data sets sourced directly from laboratory equipment, and (iii) extract unbiased quantified representations of biologically relevant features to enable the characterization of disease states, the profiling of treatment effects, and the assessment of possible toxicity or adverse events.

Key Scientific Leadership

To help drive our transition to an R&D-focused, biotechnology business model, we hired an accomplished Chief Scientific Officer, Robert T. Fremeau, PhD, to lead our drug discovery and development efforts. Dr. Fremeau has

two decades of drug discovery experience in academia and in industry, advancing next-generation drug development for severe neurological disorders. As a Scientific Director at Amgen Inc., he led and contributed to multiple teams that advanced small molecules directed at novel targets into clinical trials in several neurological indications. His extensive experience in driving molecules through the discovery phases to the clinic is already making an impact on the acceleration of our CNS pipeline.

Transformational Partnerships

When we set out to redirect Vyant Bio from a services company to a drug-discovery, therapeutic-platform company, we knew that we needed to employ the most innovative technologies to accelerate our discovery efforts and to establish our competitive position. We pursued key partnerships with companies that employ AI-based therapeutic creation and prediction in three areas: novel small-molecule design, proteome-based target identification, and novel biologics (protein) design. All three arrangements have meaningfully accelerated our focused CNS therapeutic discovery efforts.

Most recently, we completed a second, large, microBrain-based screening of AI-generated novel compounds for Rett, in conjunction with Atomwise Inc., our joint venture partner. This work has yielded “hit” expansion across two unique biological targets and several novel compounds. We are accelerating the identification stage of our discovery program to investigate and define the biological basis of the specific mechanism of action of several potential lead compounds. Our Rett program continues to positively iterate on narrowing our lead candidate identification. We have obtained evidence that our compounds work through a distinct mechanism of action and expect to announce our lead candidate, along with our supporting data, before the end of 2022.

Additionally, we entered into a collaboration agreement with Cyclica Inc. to screen compounds generated using Cyclica’s proteome-wide, AI-enabled discovery platform to identify new treatments for CDD, a disease that has no approved drugs and meaningful unmet medical needs. This effort has yielded previously undiscovered targets for treatment of the disease. We have made significant progress in the CDD program. Initially, we established and further optimized our internal microBrain platform to minimize variability and adapt it to specific neuronal phenotypes. On that note, we are developing additional assays to characterize the disease etiology further and advance our portfolio of genetic epilepsy readouts. We conducted extensive functional phenotypic screening of our Vyant Bio compound

library and identified promising compounds and potential novel therapeutic targets that recover our CDKL5-disease microBrains to a normal, non-diseased microBrain biomarker reading. Finally, we identified new targets for further evaluation based on Cyclica's machine learning proteome-wide platform and our internal scientific expertise. We are working toward announcing our lead candidate, along with our supporting data, before the end of 2022.

Along with our partner, Ordaōs Bio, we are designing AI-generated small protein therapeutics against novel CNS targets and will assess their disease modifying actions in patient derived organoids. Ordaōs Bio has a lead design and optimization system that can custom engineer miniproteins using AI/ML and the data science expertise of both organizations. The Ordaōs Bio platform draws upon a deep understanding of protein sequence, structure, and intrinsic properties. The outputs are candidate protein sequences and structures guided by in silico evaluation. We are then able to evaluate each candidate for multiple physiochemical, drug-like objectives; and the system can learn to optimize for each simultaneously. We can then predict properties of candidates (e.g., specificity, affinity) in silico to be used as metrics of optimization. The results of our in silico assays continuously train the protein generator towards the optimal therapeutic selection. We are entering into our third iteration of the design and are beginning to see the expected binding to our chosen targets, so we are optimistic about the speed and novelty of this technology. We are working toward announcing our lead protein candidate, along with our supporting data, by the first half of 2023.

We believe these research and development activities could result in meaningful new treatment options for patients suffering from these debilitating CNS diseases in the coming years. Additionally, our activities in 2022 and 2023 should act as a catalyst to create shareholder value if we can validate the utility of our organoid and AnalytiX platform in discovering repurposed and novel compounds for the CNS diseases.

2021 Challenges and Learnings

Biology is, of course, driven by human nature. Our biggest challenge, like all of biotechnology, is time. In our specific case, the time that it takes for human-derived cells to grow in our laboratory environment. While we continuously refine our process to progress iPSC cells into three-dimensional spheroids and organoids, our experiments and drug discovery

efforts have natural time constraints. With this in mind, we have been taking actions to clear disruptions, so that our team can put all their focus on progressing our CNS disease discovery initiates.

Also, building enduring partnerships takes time. While we are very happy with our key partners and their contributed teams and technologies, we are learning every day about the value of speed and accuracy. Our data and insights are increasingly improving, and we will leverage our internal as well as our collaboration partners' talents and technologies to improve and accelerate both reproducibility and efficiency processes.

Vyant Bio is now transitioning from the infancy into the early growth stage of innovative drug discovery – traditional discovery is slow and expensive; however, we are among those companies leading the way to reduce time and money, and meaningfully improve therapeutic effectiveness through experimenting on human-derived cells very early in the process rather than waiting for drugs to get into patients in costly and time-consuming clinical trials.

Further Focus and Continued Transformation

As we narrowed our focus and transformed our business strategy post-merger, we identified non-core activities and commenced taking actions to either discontinue or pause certain discovery programs and activities to allow our more promising R&D activities to take precedence and efficiently deploy our human and capital resources.

We have recently engaged Colliers Securities, an investment bank with significant experience in preclinical contract research organization ("CRO") services, to assist us in the divestiture of our *vivo*Pharm business. We recognize that *vivo*Pharm is a well-run operation with accelerating revenue generation traction. Our exit out of the preclinical CRO services business will allow us to focus all our human and capital resources on our R&D efforts to discover and develop therapeutic assets for CNS diseases. The intended result of this sale will be incremental non-dilutive cash for a focused, easy to understand, and capital efficient business. We expect to have this transaction completed in the first half of 2022.

Further, as we noted in our September 30, 2021 Form 10-Q filing, we began transitioning certain R&D activities from our La Jolla, California location to our Maple Grove, Minnesota facility. As a result of this shift and our overall focus on CNS disease therapeutic assets, we plan to cease broad-based

external product and discovery-as-a-service revenue generation activities in the first half of 2022. In light of these changes, substantially all our Maple Grove staff will be focused on our internal CNS drug discovery R&D pipeline.

Final Thoughts

As we refined our post-merger strategy, I have never lost sight of our shareholders and would like to thank you for your investment in Vyant Bio and express our appreciation for your ongoing support. I look forward to the coming year and in staying in touch with you. As always, please feel free to reach out to us if you have additional questions or comments.

Sincerely,

Mr. John A. Roberts, MBA

President and Chief Executive Officer

ABOUT VYANT BIO, INC.

Vyant Bio, Inc. (“Vyant Bio”, the “Company”) (Nadsaq:VYNT), is an innovative biotechnology company focused on identifying unique biological targets and novel and repurposed therapeutics. Vyant Bio has built a platform of therapeutics to treat neurological developmental and degenerative diseases, with current programs targeting Rett Syndrome (“Rett”), CDKL5 Deficiency Disorders (“CDD”), and 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, thereby improving the known 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 market. 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, which will allow for creating a unique approach to assimilating data that supports decision making iteratively throughout the discovery phase of drug development to identify both novel and repurposed 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 shareholder letter 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, and potential for our services, future revenues or growth, or the potential for future strategic transactions 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 adapt to the global coronavirus pandemic, discover drug candidates, partner with pharmaceutical and other biotechnology companies, achieve profitability and increase sales of our services, maintain our existing customer base and avoid cancelation of customer contracts or discontinuance of trials, raise capital to meet our liquidity needs, realize the anticipated benefits of the merger of StemoniX, Inc. and Cancer Genetics, Inc., and other risks discussed in the Vyant Bio, Inc. Form 10-K for the year ended December 31, 2020, 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.

Investor Contact:

Jennifer K. Zimmons, Ph.D., MBA

Investor Relations

Zimmons International Communications, Inc.

Email: jzimmons@zimmonsic.com

Phone: +1.917.214.3514

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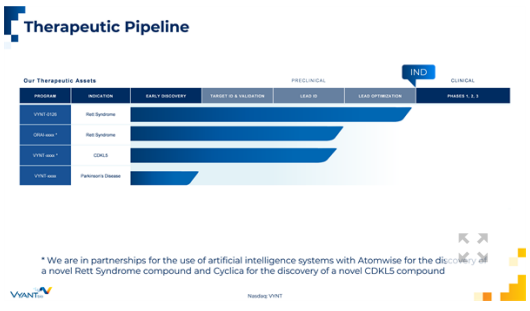
Therapeutic Pipeline



Vyant Bio’s Therapeutic Pipeline

Tags

Vyant Bio | Nadsaq:VYNT | Jay Roberts | biotechnology company | biological targets | repurposed therapeutics | CDD | Parkinson’s Disease | Rett