July 13, 2021

Vyant Bio Announces Issuance of Key Patent for High-Throughput Optical Assay of Human Mixed Cell Population Spheroids

CHERRY HILL, N.J., July 13, 2021 (GLOBE NEWSWIRE) -- Vyant Bio, Inc. ("Vyant Bio", the "Company") (Nasdaq: VYNT), an emerging leader in novel drug discovery technologies, announced today that its wholly-owned subsidiary, StemoniX, Inc. ("StemoniX"), was issued US Patent No. 11054408, titled "*High Throughput Optical Assay of Human Mixed Cell Population Spheroids*" by the United States Patent and Trademark Office (USPTO).

The patent covers a unique approach to applying human-induced Pluripotent Stem Cells (iPSCs) as a powerful tool to illuminate the biology of complex human cell types such as those of the central nervous system (CNS). Human iPSC-based, high-throughput platforms have lacked reliability and functional consistency. The patent also covers the use of 3D co-cultures of cortical neurons and astrocytes displaying spontaneous, rhythmic, and highly-synchronized neural activity that can be visualized as calcium oscillations on standard, high-throughput fluorescent readers as a platform for CNS-based discovery efforts. Spontaneous activity and spheroid structure are highly consistent from well-to-well, a feature lacking in 2D cultures. The technology enables a cost-effective method to perform high-throughput drug screening (HTS) on 3D human tissue relevant models that are more biologically accurate.

The issuance of the 11054408 patent is the third patent granted to StemoniX: additional applications are currently pending worldwide.

Modern conventional high-throughput drug screening typically uses recombinant cell lines that overexpress a drug target of interest. The advent of human iPSCs is delivering, among other things, the development of relevant cellular disease models for use in high-throughput screening. Human iPSCs offer many advantages over recombinant cell lines or primary rodent cells for use in drug screening. Because these cells are derived from human donors, human genetic diseases can be more accurately modeled, especially when used in combination with modern genome editing techniques. Furthermore, the ability of human iPSCs to be differentiated into a variety of cell types further expands their utility as screens can be conducted using functional or disease-relevant assays in an appropriate cell type that recapitulates many of the native cellular processes. This type of screening has the potential to reveal novel biology and lead to new pharmacological mechanisms of action, druggable targets, and companion diagnostics.

Ping Yeh, Chief Innovation Officer, stated "Disease modeling in iPSCs has improved our understanding of critical pathways for a variety of neurological diseases including Rett syndrome, Parkinson's Disease (PD), Alzheimer's Disease (AD), and schizophrenia. Many psychiatric diseases are hypothesized to be caused by defects in the normal circuitry and excitatory properties of neurons in the brain, while AD is characterized by synaptic loss and dysfunction. Consequently, development of a human iPSC-based, high-throughput screening platform to identify compounds that modulate neuronal activity and network connectivity is of

important therapeutic value."

"We believe that drug discovery needs to progressively evolve given the traditional methods and models for predicting safe and effective drugs have under-performed, as evidenced by the billions of dollars and years of time it takes to bring novel drugs to market. The issuance of this patent continues to provide us with increasing focus for our business on converging an impactful approach to drug discovery with data science and biology-driven technologies at the core with engineering disciplines and regulatory expertise," said Jay Roberts, Chief Executive Officer.

ABOUT VYANT BIO, INC.

Vyant Bio, Inc. ("Vyant Bio", the "Company") (Nasdaq: VYNT) is emerging as an advanced biotechnology drug discovery company. With capabilities in data, science (both biology and chemistry), engineering, and regulatory, we are rapidly identifying small and large molecule therapeutics and derisking decision making through multiple in silico, in vitro, and in vivo modalities. Leveraging these modalities, Vyant Bio is able to capitalize on repurposed and novel compounds and then partner with others to further develop and commercialize valuable therapeutics and new treatments for patients. Vyant Bio operates two wholly-owned subsidiaries, StemoniX and *vivo*Pharm. Formerly known as Cancer Genetics, Inc., the Company's name was changed to Vyant Bio, Inc. in March 2021. Vyant Bio is headquartered in the US, with offices in Europe, and Australia.

StemoniX is empowering the discovery of new medicines through the convergence of novel human biology and software technologies. StemoniX develops and manufactures high-density, at-scale human induced pluripotent stem cell-derived neural and cardiac screening platforms for drug discovery and development. Predictive, accurate, and consistent, these human models enable scientists to conduct research quickly and economically with improved outcomes in a simplified workflow. Through collaborations with drug discovery organizations, StemoniX tests compounds in-house, creates new cell-based disease models, and operationalizes custom human iPSC-derived disease models at large scale for high-throughput screening. With leading-edge human iPSC technologies and data science, StemoniX is helping global institutions bring the most promising medicines to patients.

*vivo*Pharm offers proprietary preclinical test systems supporting clinical diagnostic offerings at early stages valued by the pharmaceutical industry, biotechnology companies, and academic research centers. *vivo*Pharm is focused on precision and translational medicine to drive drug discovery and novel therapies. *vivo*Pharm specializes in conducting studies tailored to guide drug development, starting from compound libraries and ending with a comprehensive set of *in vitro* and *in vivo* data and reports, as needed for Investigational New Drug filings. *vivo*Pharm operates in The Association for Assessment and Accreditation of Laboratory Animal Care International (AAALAC) accredited and GLP compliant audited facilities.

For more information, please visit or follow Vyant Bio at:

Internet: www.vyantbio.com

LinkedIn: https://www.linkedin.com/company/vyant-bio

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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, 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 with StemoniX, Inc., and other risks discussed in the Vyant Bio, Inc. Form 10-K for the year ended December 31, 2020, and Form 10-Q for the quarter ended March 31, 2021, along with other 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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Source: Vyant Bio, Inc.