Verve Therapeutics Provides Pipeline Progress and Reports Fourth Quarter and Full Year 2022 Financial Results

March 2, 2023

heart-1 Clinical Trial of VERVE-101 Ongoing in New Zealand and UK; Data from Dose Escalation Cohorts Expected in the Second Half of 2023

VERVE-201 Progressing Through Preclinical Development with Clinical Initiation Anticipated in 2024

Well-Capitalized with $554.8 Million Supporting Runway into the Second Half of 2025

BOSTON, March 02, 2023 (GLOBE NEWSWIRE) -- Verve Therapeutics, Inc., a clinical-stage biotechnology company pioneering a new approach to the care of cardiovascular disease with single-course gene editing medicines, today reported pipeline updates and financial results for the fourth quarter and year ended December 31, 2022.

"Throughout 2022, we made important progress toward our goal of transforming the treatment of heart disease, as we treated our first patient with VERVE-101 and transitioned to a clinical-stage company, advanced VERVE-201 closer to clinical development, further enhanced our delivery capabilities, and expanded our research pipeline," said Sekar Kathiresan, M.D., co-founder and chief executive officer of Verve. "As we enter 2023, we are focused on the successful execution of our heart-1 clinical trial with VERVE-101, which we are advancing in high-risk heterozygous familial hypercholesterolemia patients. Beyond VERVE-101 and VERVE-201, we are excited by the opportunities across our portfolio, including an early program targeting the *LPA* gene, the advancement of our proprietary GalNAc-LNP delivery technology, and our ongoing collaborations with Beam and Vertex. The current chronic care model to treat atherosclerotic cardiovascular disease - daily pills and/or intermittent injections often over decades - is broken, and at Verve, we remain steadfast in our mission to transform the management of this disease through once-and-done therapies."

VERVE-101

- VERVE-101 is an *in vivo* base editing therapy delivered as a one-time intravenous infusion designed to inactivate the *PCSK9* gene in liver cells, turn off liver production of blood PCSK9 and thereby, durably reduce blood levels of disease-driving low-density lipoprotein cholesterol (LDL-C). VERVE-101 is initially being developed for the treatment of heterozygous familial hypercholesterolemia (HeFH), a genetic subtype of atherosclerotic cardiovascular disease (ASCVD). Despite available therapies to lower LDL-C, more than 95% of HeFH patients worldwide are not at treatment goal for LDL-C, reflecting the high unmet need in this patient population. Ultimately, beyond HeFH, VERVE-101 is expected to be developed for a broader population of patients with ASCVD who are not at LDL-C goal despite oral standard of care.

heart-1 Clinical Trial Updates

- VERVE-101 is currently being evaluated in the Phase 1b heart-1 clinical trial. Verve continues to enroll patients into the heart-1 clinical trial in New Zealand and the United Kingdom (UK). Enrolled HeFH patients are in a high-risk subset defined by the presence of a low-density lipoprotein receptor (LDL-R) mutation, established ASCVD, and uncontrolled LDL-C on oral standard of care.
- Verve plans to report initial safety and pharmacodynamic data for all dose cohorts of the dose-escalation portion of the heart-1 trial in the second half of 2023.

Regulatory Updates

- In the fourth quarter of 2022, Verve was informed by the U.S. Food and Drug Administration (FDA) that its Investigational New Drug (IND) application for VERVE-101 was placed on hold and subsequently received a clinical hold letter from the FDA that outlined the information required to resolve the hold and initiate dosing of patients in the U.S. Verve is addressing requests from the FDA regarding the clinical hold and intends to submit a response as expeditiously as possible.
- VERVE-101 was recently awarded an Innovation Passport for the treatment of HeFH under the Innovative Licensing and Access Pathway (ILAP) by the UK Medicines and Healthcare products Regulatory Agency (MHRA). The Innovation Passport designation is the entry point to the ILAP, which aims to accelerate time to market and facilitate patient access to medicines in the UK for life-threatening or seriously debilitating conditions, or conditions for which there is a significant patient or public health need.

VERVE-201

- VERVE-201 is an *in vivo* base editing therapy delivered as a one-time intravenous infusion designed to inactivate the *ANGPTL3* gene in liver cells, turn off liver production of blood ANGPTL3 and thereby, durably reduce blood levels of

disease-driving LDL-C and triglyceride-rich lipoproteins. VERVE-201 is initially being developed for the treatment of homozygous familial hypercholesterolemia (HoFH), a rare and often fatal genetic subtype of premature ASCVD characterized by extremely high blood LDL-C. VERVE-201 aims to reduce the heavy treatment burden associated with available therapies for HoFH including the requirement for multiple oral, injectable, and intravenous infusions in each patient, often administered over decades. Ultimately, beyond HoFH, VERVE-201 is expected to be developed for a broader population of patients with refractory hypercholesterolemia, defined as ASCVD patients with LDL-C that is refractory to treatment with available oral and injectable options for LDL-C lowering, such as PCSK9 inhibitors.

- Preclinical studies to support a regulatory filing for clinical development of VERVE-201 are ongoing with the initiation of a Phase 1b clinical trial anticipated in 2024.
- Verve plans to present preclinical data from its VERVE-201 program at this year's American College of Cardiology (ACC) Annual Meeting being held in New Orleans, March 4-6, 2023. Details are as follows:
    - **Presentation Title:** Preclinical Data Supporting Potential Efficacy of Verve-201 - An Investigational Crispr Base Editing Medicine Targeting ANGPTL3 - In Primary Human Cells, Mice, And Non-Human Primates
    - **Session Title:** Highlighted Original Research: Ischemic Heart Disease and the Year in Review
    - **Date & Time:** Sunday, March 5, 2023, from 10:47am - 10:57am CST
    - **Location:** Ernest N. Morial Convention Center, Room 219

Additional Research Pipeline Progress

- Verve continues to progress its proprietary GalNAc-LNP delivery technology, which has the potential to offer best-in-class delivery of genetic medicines to the liver. Verve is leveraging its GalNAc-LNP for delivery of its *ANGPTL3* base editing program with VERVE-201 and is also advancing a GalNAc-LNP delivered *PCSK9* base editor into preclinical development.
- As part of its strategy to address the three lipoprotein pathways that drive ASCVD, Verve is advancing research for a gene editing medicine targeting the *LPA* gene in the liver. Verve plans to evaluate this medicine initially for patients with ASCVD and high circulating lipoprotein(a) (Lp(a)) concentrations.

Corporate Update

- Joan Nickerson, who has served as Verve's senior vice president, human resources and facilities since 2021, has been promoted to the role of chief administrative officer. Ms. Nickerson has over 25 years of experience in human resources. Prior to joining Verve, she led the human resource functions at Sarepta Therapeutics and earlier, led human resources at Dyax, prior to its acquisition by Shire. Ms. Nickerson holds a BBA from the University of Massachusetts and an MBA from Simmons College in Boston.

Fourth Quarter and Full Year 2022 Financial Results

- **Cash Position:** Cash, cash equivalents and marketable securities were $554.8 million as of December 31, 2022, compared with $360.4 million as of December 31, 2021. Based on current operating plans, Verve expects its existing cash, cash equivalents and marketable securities will enable the company to fund its operating expenses and capital expenditure requirements into the second half of 2025.
- **Collaboration Revenue:** Collaboration revenue was $1.0 million for the quarter ended December 31, 2022, and $1.9 million for the year ended December 31, 2022. There was no collaboration revenue in the quarter or year ended December 31, 2021.
- **R&D Expenses:** Research and development (R&D) expenses were $37.3 million for the quarter ended December 31, 2022, and $130.1 million for the year ended December 31, 2022, compared to $25.9 million for the quarter ended December 31, 2021, and $68.2 million for the year ended December 31, 2021.
- **G&A Expenses:** General and administrative (G&A) expenses were $11.4 million for the quarter ended December 31, 2022, and $37.5 million for the year ended December 31, 2022, compared to $6.6 million for the quarter ended December 31, 2021, and $18.9 million for the year ended December 31, 2021.
- **Net Loss:** Net loss was $41.1 million, or $0.67 basic and diluted net loss per share, for the quarter ended December 31, 2022, and $157.4 million, or $2.91 basic and diluted net loss per share, for the year ended December 31, 2022, compared to a net loss of $31.3 million, or $0.65 basic and diluted net loss per share, for the quarter ended December 31, 2021, and $120.3 million, or $4.48 basic and diluted net loss per share, for the year ended December 31, 2021.

About heart-1
heart-1 is an open-label Phase1b clinical trial designed to enroll approximately 40 adult patients with heterozygous familial hypercholesterolemia (HeFH) who have established atherosclerotic cardiovascular disease (ASCVD) to evaluate the safety and tolerability of VERVE-101 administration, with additional analyses for pharmacokinetics and reductions in blood PCSK9 protein and low-density lipoprotein cholesterol (LDL-C). Initial clinical data from the dose escalation portion of the heart-1 clinical trial including safety parameters, blood PCSK9 level, and blood LDL-C level are expected in the second half of 2023. For more information, please visit clinicaltrials.gov.

About Verve Therapeutics
Verve Therapeutics, Inc. (Nasdaq: VERV) is a clinical-stage genetic medicines company pioneering a new approach to the care of cardiovascular disease, potentially transforming treatment from chronic management to single-course gene editing medicines. The company's initial two programs –

VERVE-101 and VERVE-201 – target genes that have been extensively validated as targets for lowering low-density lipoprotein cholesterol (LDL-C), a root cause of cardiovascular disease, in order to durably reduce blood LDL-C levels. VERVE-101 is designed to permanently turn off the *PCSK9* gene in the liver and is being developed initially for heterozygous familial hypercholesterolemia (HeFH) and ultimately to treat atherosclerotic cardiovascular disease (ASCVD) patients not at goal on oral therapy. VERVE-201 is designed to permanently turn off the *ANGPTL3* gene in the liver and is initially being developed in homozygous familial hypercholesterolemia (HoFH) and ultimately to treat patients with refractory hypercholesterolemia. For more information, please visit www.VerveTx.com.

Forward Looking Statements

This press release contains "forward-looking statements" within the meaning of the Private Securities Litigation Reform Act of 1995 that involve substantial risks and uncertainties, including statements regarding the company's expectations regarding communications related to the clinical hold on the IND for VERVE-101; the company's ability to enroll patients in its ongoing heart-1 trial; the timing and availability of clinical data from its heart-1 clinical trial; the expected timing of initiating a clinical trial of VERVE-201; its research and development plans; the potential advantages and therapeutic potential of the company's programs, including VERVE-101 and VERVE-201; and the period over which the company believes that its existing, cash, cash equivalents and marketable securities will be sufficient to fund its operating expenses. All statements, other than statements of historical facts, contained in this press release, including statements regarding the company's strategy, future operations, future financial position, prospects, plans and objectives of management, are forward-looking statements. The words "anticipate," "believe," "continue," "could," "estimate," "expect," "intend," "may," "plan," "potential," "predict," "project," "should," "target," "will," "would" and similar expressions are intended to identify forward-looking statements, although not all forward-looking statements contain these identifying words. Any forward-looking statements are based on management's current expectations of future events and are subject to a number of risks and uncertainties that could cause actual results to differ materially and adversely from those set forth in, or implied by, such forward-looking statements. These risks and uncertainties include, but are not limited to, risks associated with the company's limited operating history; the timing of and the company's ability to submit applications for, its product candidates; advance its product candidates in clinical trials; initiate, enroll and complete its ongoing and future clinical trials on the timeline expected or at all; correctly estimate the potential patient population and/or market for the company's product candidates; replicate in clinical trials positive results found in preclinical studies and/or earlier-stage clinical trials of VERVE-101 and VERVE-201; advance the development of its product candidates under the timelines it anticipates in current and future clinical trials; obtain, maintain or protect intellectual property rights related to its product candidates; manage expenses; and raise the substantial additional capital needed to achieve its business objectives. For a discussion of other risks and uncertainties, and other important factors, any of which could cause the company's actual results to differ from those contained in the forward-looking statements, see the "Risk Factors" section, as well as discussions of potential risks, uncertainties and other important factors, in the company's most recent filings with the Securities and Exchange Commission and in other filings that the company makes with the Securities and Exchange Commission in the future. In addition, the forward-looking statements included in this press release represent the company's views as of the date hereof and should not be relied upon as representing the company's views as of any date subsequent to the date hereof. The company anticipates that subsequent events and developments will cause the company's views to change. However, while the company may elect to update these forward-looking statements at some point in the future, the company specifically disclaims any obligation to do so.

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Verve Therapeutics, Inc.
Selected Financial Information
(in thousands, except share and per share amounts)
(unaudited)

Consolidated statements of operations	Three months ended December 31, 2022	Three months ended December 31, 2021	Year ended December 31, 2022	Year ended December 31, 2021
Collaboration revenue	$ 1,012	$ —	$ 1,941	$ —
Operating expenses:				
Research and development	37,283	25,939	130,095	68,202
General and administrative	11,438	6,601	37,533	18,865
Total operating expenses	48,721	32,540	167,628	87,067
Loss from operations	(47,709)	(32,540)	(165,687)	(87,067)
Other income (expense):				
Change in fair value of antidilution rights liability	—	—	—	(25,574)
Change in fair value of success payment liability	2,177	1,139	1,486	(7,815)
Interest and other income, net	4,501	64	6,867	142
Total other expense, net	6,678	1,203	8,353	(33,247)
Loss before provision for income taxes	(41,031)	(31,337)	(157,334)	(120,314)
Provision for income taxes	(53)	—	(53)	—
Net loss	$ (41,084)	$ (31,337)	$ (157,387)	$ (120,314)

Net loss per common share attributable to common stockholders, basic and diluted	$ (0.67)	$ (0.65)	$ (2.91)	$ (4.48)
Weighted-average common shares used in net loss per share attributable to common stockholders, basic and diluted	61,464,731	48,026,078	54,023,653	26,872,036

Condensed consolidated balance sheet data	**December 31, 2022**	**December 31, 2021**
Cash, cash equivalents and marketable securities	$ 554,808	$ 360,442
Total assets	$ 679,223	$ 384,124
Total liabilities	$ 128,291	$ 26,772
Total stockholders' equity	$ 550,932	$ 357,352