



## Heart-2 study of VERVE-102 in people with heterozygous familial hypercholesterolemia (HeFH) and/or premature coronary artery disease (CAD)

Summary of initial results for patients – April 14, 2025

### What is VERVE-102?

Verve Therapeutics is developing VERVE-102, an investigational gene editing medicine designed to turn off production of the PCSK9 protein in the liver to reduce blood levels of low-density lipoprotein cholesterol (LDL-C) or “bad” cholesterol. High levels of LDL-C in the blood can increase the risk of heart attack or stroke. A single dose of VERVE-102 is given through an intravenous (IV) infusion into the arm. VERVE-102 is designed to make a change to the DNA to turn off the *PCSK9* gene, which is known to lower LDL-C levels. You can find more information about VERVE-102 on our website [www.vervetx.com](http://www.vervetx.com).

### What is the Heart-2 study?

The Heart-2 study is testing whether a single dose of VERVE-102 can safely and permanently reduce LDL-C. The study is open to people diagnosed with heterozygous familial hypercholesterolemia (HeFH) and/or premature coronary artery disease (CAD) who have LDL-C levels that remain too high despite taking cholesterol lowering medicines. You can find more information about the Heart-2 study on our study website [www.heart2study.com](http://www.heart2study.com).

### What are “initial” results?

Initial results are a summary of early data from a clinical research study before the study has been completed. Clinical researchers sometimes look at initial results to assess the progress of the study, including to see if there are any safety concerns and if the investigational medicine appears to be working as intended. Initial results are not final and do not allow us to conclude whether an investigational medicine works or is safe. The initial data reported from the Heart-2 study are from 14 participants with at least 28 days of follow-up for each participant. We need to enroll more people and monitor them for a longer period of time to fully understand the safety and effectiveness of the investigational medicine, VERVE-102.

### What has happened so far in the Heart-2 study?

The first part of the Heart-2 study has focused on monitoring for side effects and how well VERVE-102 is tolerated, as well as if VERVE-102 has the potential to lower LDL-C levels in blood. Information on side effects and blood levels of LDL-C will help researchers select doses of VERVE-102 to be studied in the second part of the study. The first four participants received a single infusion of VERVE-102 at the lowest dose, and six and four participants received increasingly higher doses.

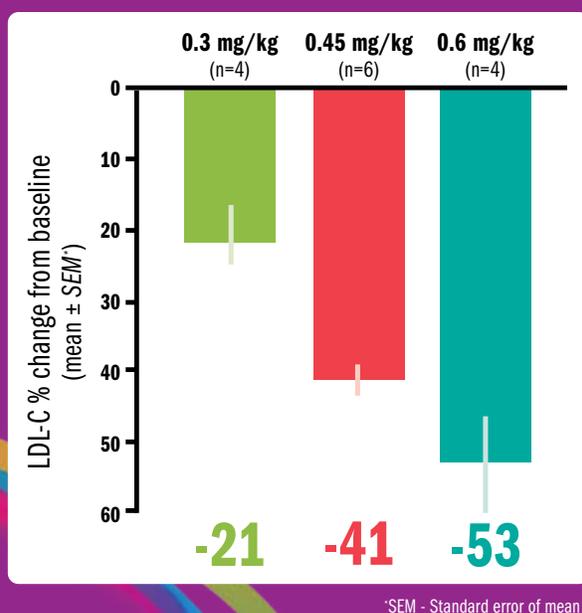
## What are the initial safety results?

Overall VERVE-102 was well-tolerated across all dose levels. There were no unexpected concerns following the infusion with VERVE-102. Some participants experienced mild or moderate short-term side-effects, which included fatigue and dizziness. Importantly there were no severe side effects related to receiving VERVE-102.

## What are the initial results for changes in blood levels of LDL-C?

Participants in all three dose level groups had reduced levels of LDL-C in their blood 28 days after receiving VERVE-102 compared to their levels before receiving VERVE-102. Higher doses of VERVE-102 were associated with greater reduction in LDL-C levels. In three individuals who received a higher dose of VERVE-102, LDL-C levels were reduced by more than half (50%) from the levels prior to receiving VERVE-102.

Graph showing time-averaged mean percent change in blood levels of LDL-C, at least 28 days after receiving VERVE-102



**DOSE GROUP 1** (0.3 mg/kg)  
average LDL-C reduction was 21%

**DOSE GROUP 2** (0.45 mg/kg)  
average LDL-C reduction was 41%

**DOSE GROUP 3** (0.6 mg/kg)  
average LDL-C reduction was 53%

The third group includes one participant who had a 69% reduction in LDL-C.

## What do these results mean for the Heart-2 study and VERVE-102?

These initial results suggest that VERVE-102 has the potential to safely lower LDL-C, with an average reduction of 53% in participants who received the 0.6 mg/kg dose, and one participant experiencing a 69% reduction of blood LDL-C levels. All participants will continue to be monitored for 12 months after receiving their initial dose of VERVE-102, before enrolling in a separate long-term follow-up study.

A group of medical experts independent from Verve reviewed the safety profile and based on the initial results, recommended continuing the Heart-2 study.

Additional participants will be enrolled in the study and monitored to continue to understand the safety, tolerability, and effectiveness of VERVE-102 and select the doses that will be used for the second part of the Heart-2 study.

**Verve Therapeutics, along with the study doctors, nurses, and coordinators, are deeply grateful to all the participants who took part in the Heart-2 study. Participation is essential to making this research possible and advancing care for people with elevated LDL-C.**