



Transforming the Care of Cardiovascular Disease Through Single-course Gene Editing Medicines

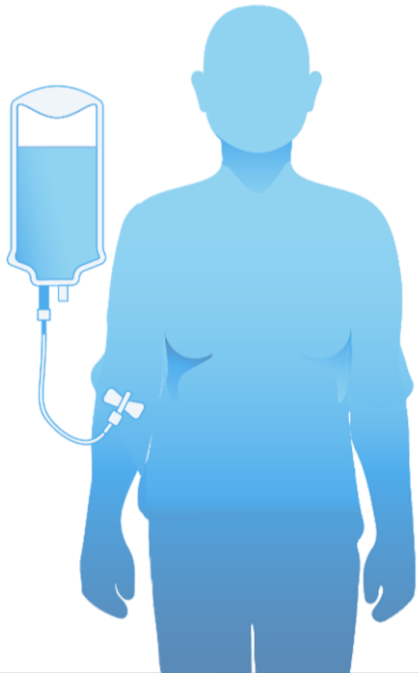
MAY 2025

Forward looking statements and disclaimers

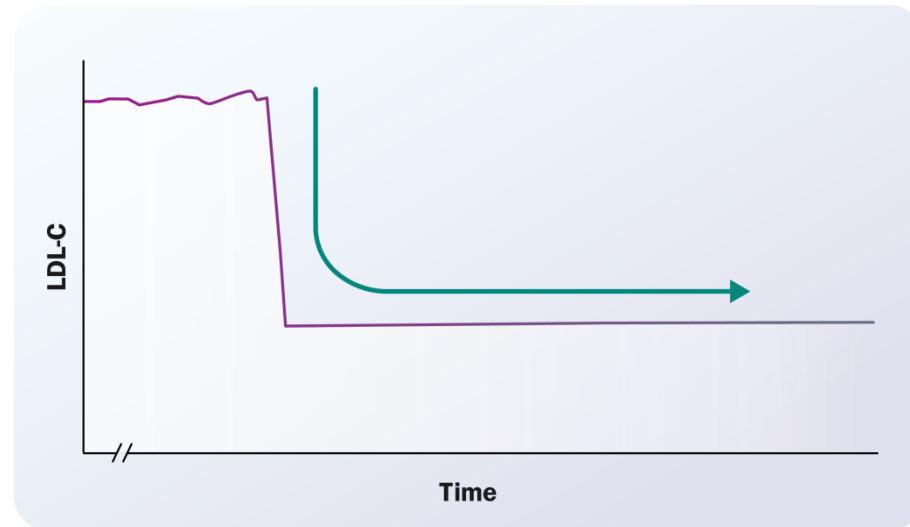
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Verve's vision: a one dose future to address chronic disease

Single IV Infusion of Verve Product



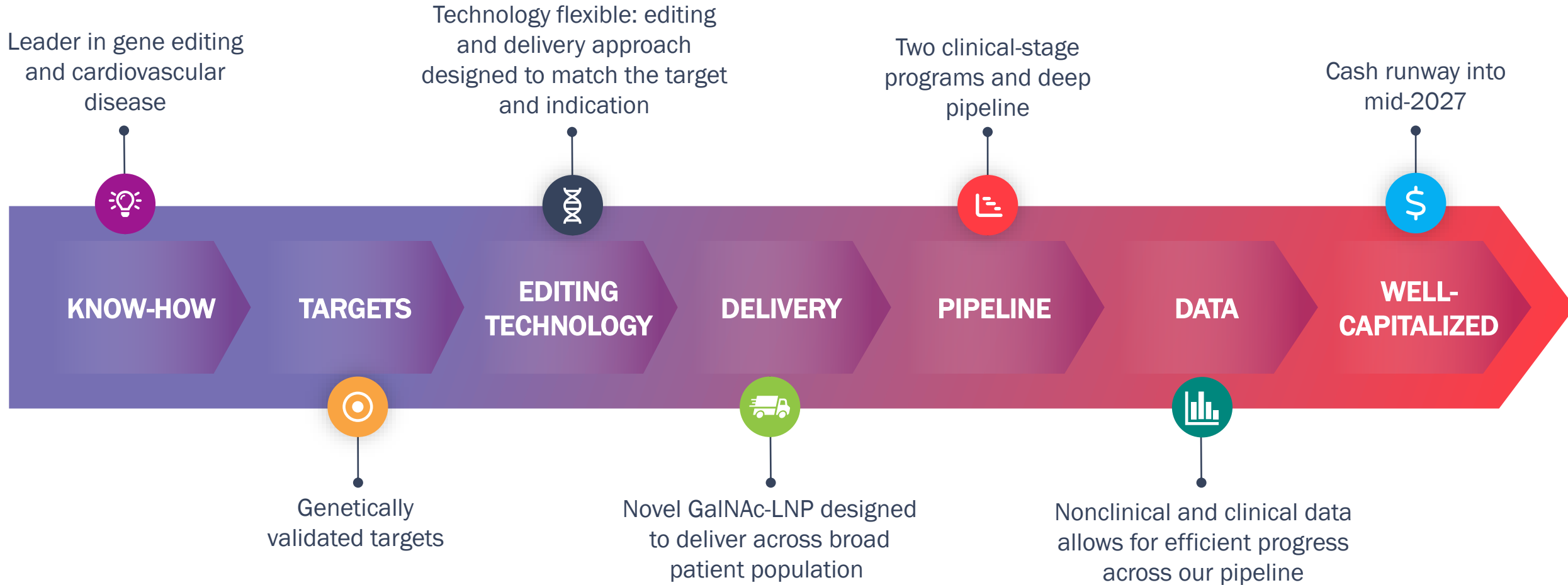
Lifelong Blood Cholesterol Reduction



VERVE MISSION

Deliver
enduring efficacy
to patients living with
or at high risk for
ASCVD

Transforming the treatment of cardiovascular disease (CVD) from chronic care to once-and-done



ASCVD and HeFH:

highly prevalent diseases with profound need for improved treatments

Atherosclerotic Cardiovascular Disease (ASCVD)

What is ASCVD?

Build-up of cholesterol-driven deposits in artery walls that restricts healthy blood flow and can cause heart disease, stroke, and peripheral vascular disease

>30M

Patients with ASCVD not at LDL-C goal in U.S. + EU^{1,2}

~75%

ASCVD patients are not at LDL-C goal²

ASCVD is the leading cause of death in the world

Heterozygous Familial Hypercholesterolemia (HeFH)

What is HeFH?

Inherited disease characterized by high levels of LDL-C [LDL-C \geq 190 mg/dL] that frequently results in early-onset ASCVD

>3M

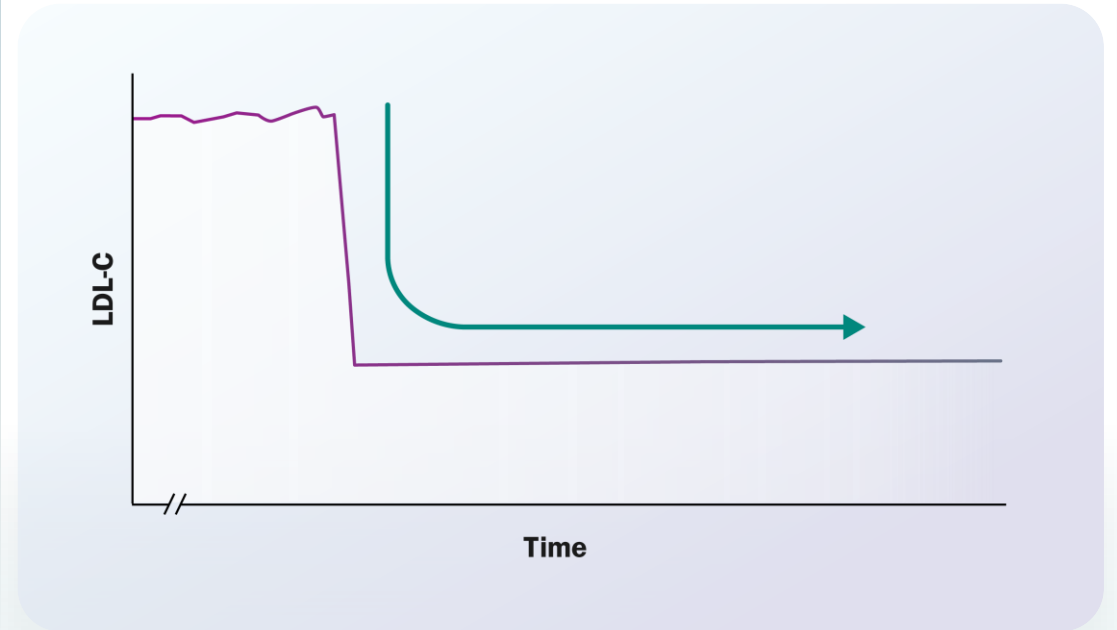
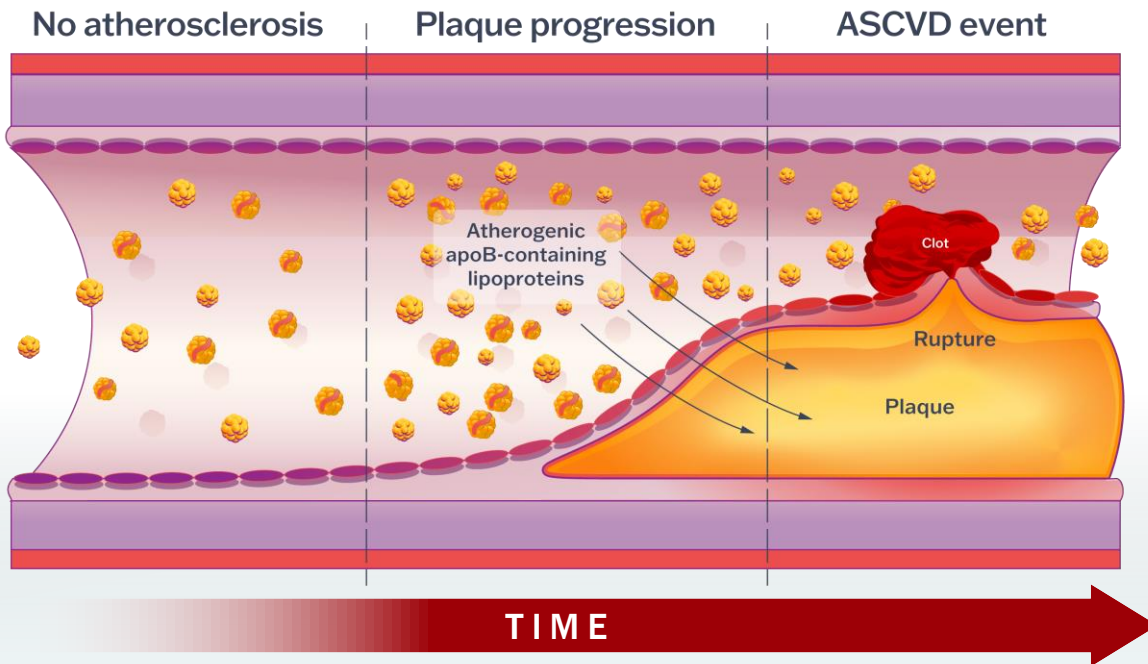
Patients with HeFH in U.S. + EU³

97%

HeFH patients are not at LDL-C goal⁴

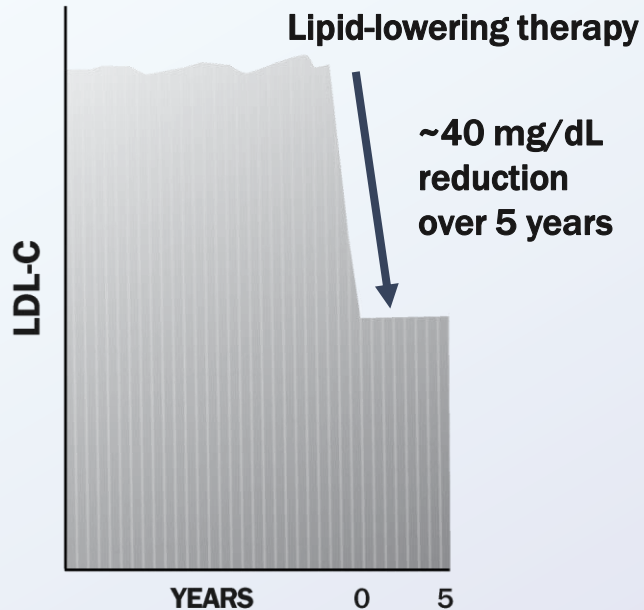
HeFH is the most prevalent genetic disease in humans

Treatment and prevention of ASCVD: keep blood cholesterol as low as possible for as long as possible



Significant unmet need: today's chronic care approach leads to transient LDL-C reduction and inadequate efficacy

Today's Approach: Transient LDL-C Reduction, Inadequate Efficacy



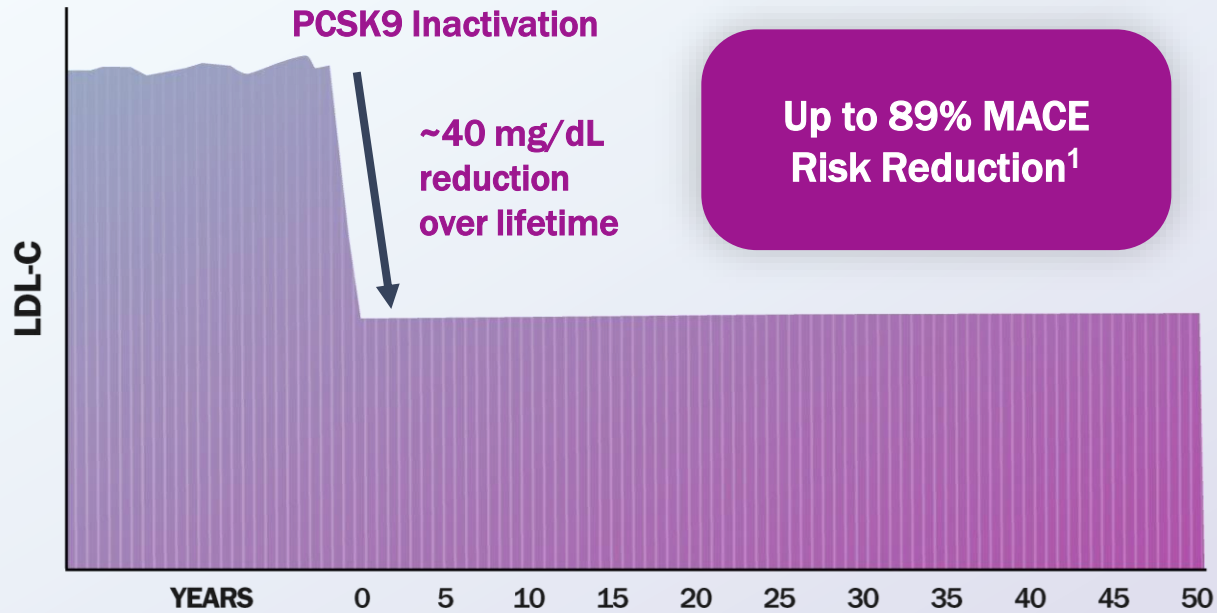
21% Major CVD Event Reduction¹

Learnings from lipid lowering trials:*
5 years of consistent LDL-C lowering reduces major cardiovascular event risk by 21%

Efficacy is Compromised by Frequent Discontinuation

| | PCSK9 siRNA | PCSK9 mAb |
|---|--------------------------|-------------------------|
| Dosing | Injection every 6 months | Injection every 2 weeks |
| 1-year Patient Discontinuation Rate ² | ~1 in 5 | ~1 in 2 |
| Estimated Real-world LDL-C Reduction at 1 year ³ | - 35% | - 23% |

Solution: a treatment approach that can provide **enduring efficacy**;
40 mg/dL reduction over a lifetime = dramatic ASCVD risk reduction

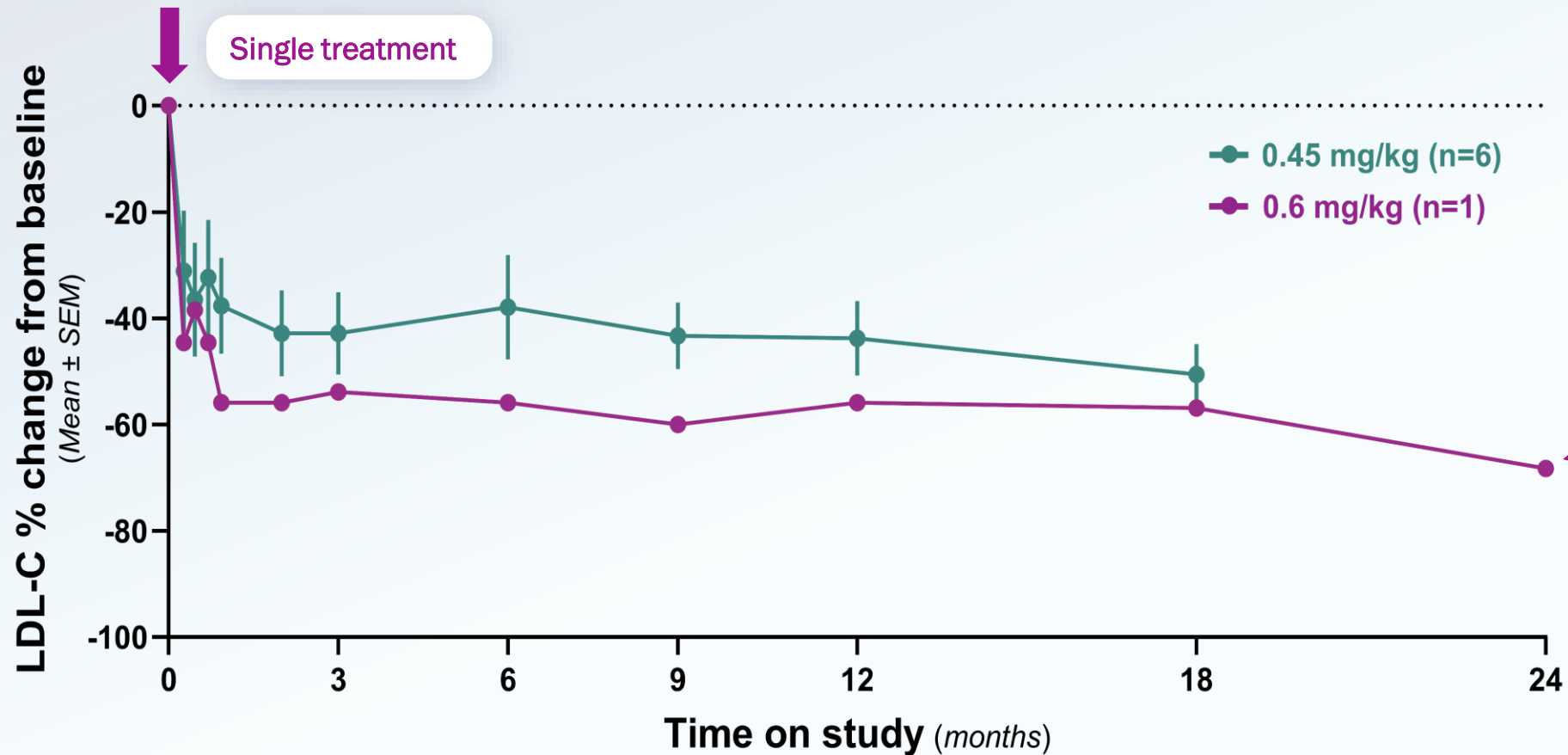


Lifetime of lowered LDL-C safely reduces MACE risk by up to 89%



Benefit of LDL-C lowering accrues over time and is **maximized when started early and durably maintained**

VERVE-101 data provides proof of concept that base editing mechanism may deliver enduring efficacy: 2 years after treatment, time-averaged LDL-C reduction of 58% for single participant



Patient diagnosed with HeFH who had suffered heart attack before age 30

Post VERVE-101 treatment, has been at LDL-C goal for 2 years

Data from parent Heart-1 study as of February 27, 2025. Data from long-term follow-up study as of March 26, 2025. Data are from ongoing studies with open databases that have not been fully cleaned. Participants in 0.45 mg/kg cohort have variable duration of follow up, with n=2 at 18 months and n=4 at 12 months. Select time points were impacted for two participants in the 0.45 mg/kg cohort due to changes in background lipid-lowering therapy. LDL-C, low-density lipoprotein cholesterol; SEM, standard error of the mean

Verve is advancing a pipeline of *in vivo* gene editing programs designed to lower cholesterol lifelong after a single treatment

| TARGET | INDICATION | TECHNOLOGY | RESEARCH | IND-ENABLING | CLINICAL |
|-------------------------------------|--|------------------------------|----------|--------------|----------|
| PCSK9 ¹ (VERVE-102) | Heterozygous familial hypercholesterolemia | Base Editor (GalNAc-LNP) | | | |
| | ASCVD | | | | |
| ANGPTL3 ¹ (VERVE-201) | Homozygous familial hypercholesterolemia | Base Editor (GalNAc-LNP) | | | |
| | Refractory hypercholesterolemia | | | | |
| LPA ² (VERVE-301) | ASCVD patients with high blood Lp(a) | Novel Editor (GalNAc-LNP) | | | |
| Undisclosed | Undisclosed ASCVD | Novel Editor | | | |
| Undisclosed | Undisclosed liver disease | Novel Editor | | | |

= base editor = novel editor

1. Under collaboration with Eli Lilly and Company; Verve-led development, with Lilly option for cost and US margin share.
 2. Under collaboration with Eli Lilly and Company; Verve-led development through Phase 1, with Verve option for cost and margin share.

Verve's pipeline of gene editing programs is designed to address distinct groups of patients with ASCVD

All atherosclerotic cardiovascular disease (ASCVD) ~51M in US/EU



VERVE-102

VERVE-102

VERVE-201

VERVE-201

VERVE-301

HeFH²
> 3M in US/EU

ASCVD not at LDL-C goal^{1,3}
> 30M in US/EU

HoFH⁴
> 3,000 in US/EU

Refractory-hypercholesterolemia⁵
(ASCVD not at LDL-C goal on maximum standard of care)
~4M in US/EU

Elevated Lp(a)⁶
~13M in US/EU
(~25% ASCVD)

ASCVD, atherosclerotic cardiovascular disease; HeFH, heterozygous familial hypercholesterolemia; HoFH, homozygous familial hypercholesterolemia; Lp(a), lipoprotein(a)

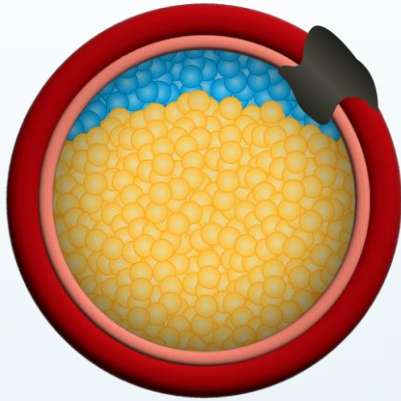
1. Gu J et al. Am J Prev Cardiol 2022;10: 100336; Ray KK et al. European Journal of Preventive Cardiology 2021; 28: 1279-1289; Townsend et al. Nature Reviews Cardiology 2022; 19: 133-143; 2. de Ferranti et al. Circulation 2016;133: 1067-72; 3. Gu J et al., Am J Prev Cardiol 2022;10: 100336; Ray KK et al., European Journal of Preventive Cardiology 2021;28: 1279-1289; 4. Cuchel M et al. Eur Heart J 2023; 44: 2277-2291; 5. O'Donoghue ML et al. Circulation 2022; 146: 1109-1119; 6. Nissen SE et al. Open Heart 2022;9:e002060.

The three cholesterol drivers of atherosclerosis — LDL, TRL, and Lp(a) — are addressed by VERVE-102 (PCSK9), VERVE-201 (ANGPTL3), and VERVE-301 (LPA)



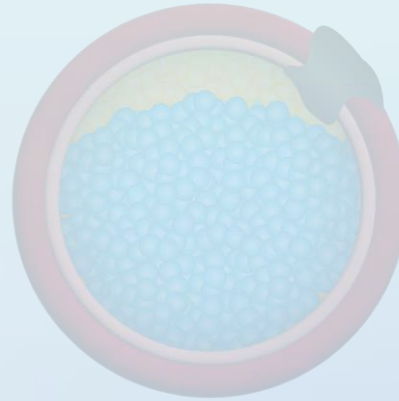
PCSK9 program: **VERVE-102**

LDL



VERVE-102 (PCSK9)

TRL



VERVE-201 (ANGPTL3)

Lp(a)



VERVE-301 (LPA)

● Cholesterol

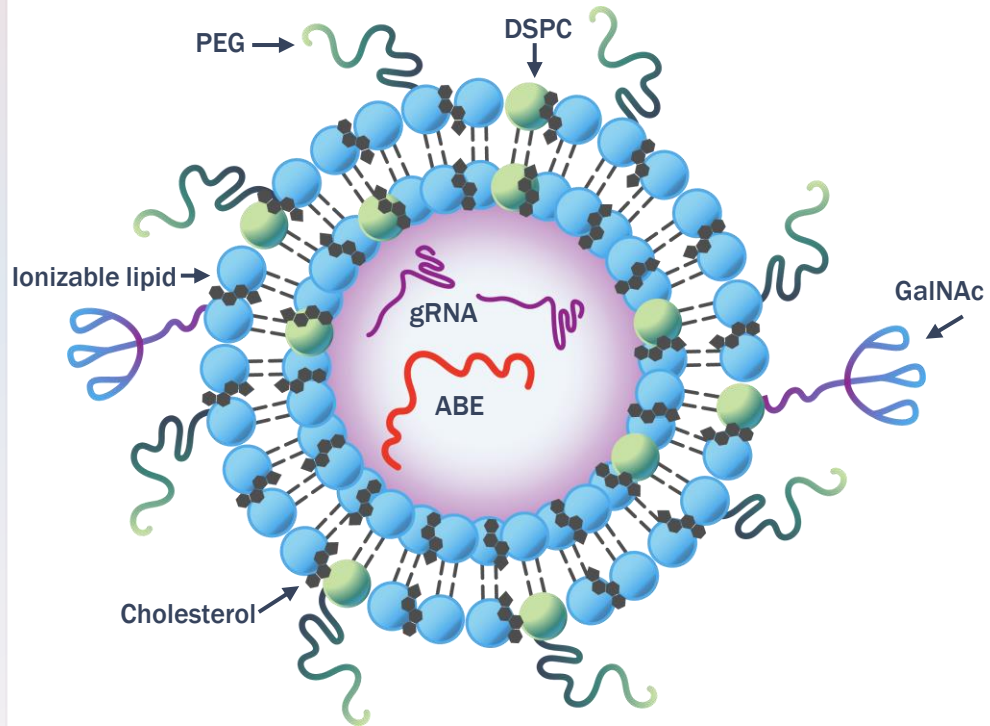
● Triglyceride

● Apolipoprotein B

● Apolipoprotein(a)

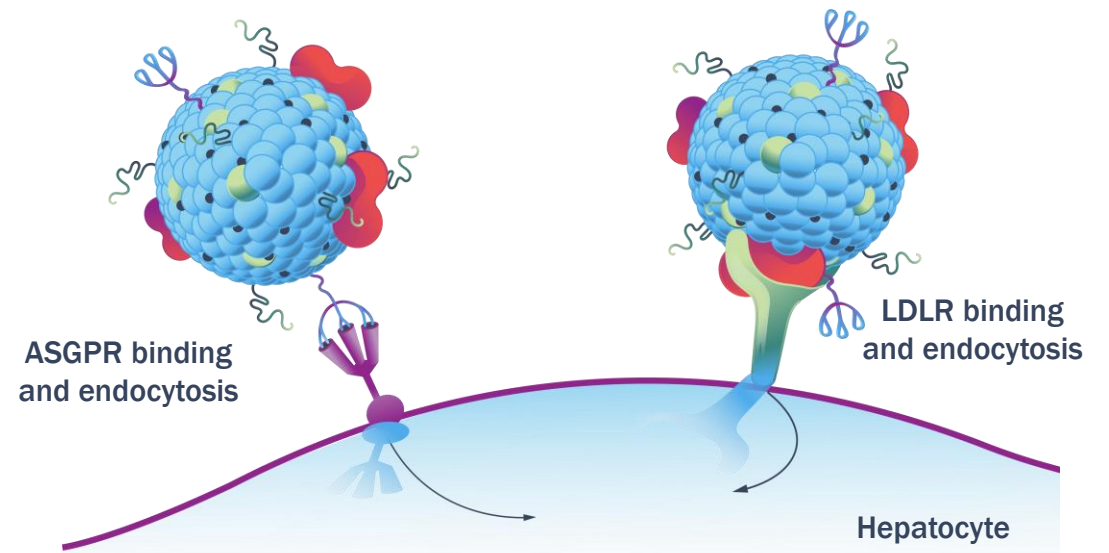
VERVE-102 is an investigational *in vivo* base editing medicine that is delivered by a GaINAc-LNP and is designed to inactivate *PCSK9*

VERVE-102



Role of the GaINAc Ligand

After IV infusion of the GaINAc-LNP, VERVE-102 enters hepatocytes through LDLR or ASGPR



Heart-2: Phase 1b clinical trial designed to evaluate safety and tolerability of VERVE-102 (PCSK9)



Population: HeFH and/or premature coronary artery disease patients who require additional LDL-C lowering



Intervention:
Single dose administered as a 2- to 4-hour peripheral intravenous infusion¹

Phase 1b
Single ascending dose, n = 3 – 9 per cohort

0.3 mg/kg

0.45 mg/kg

0.6 mg/kg

0.7 mg/kg

Phase 2*
Expect first patient dosed H2 2025

Doses selected based on findings from Phase 1

Objectives:

- Primary: evaluate safety and tolerability
- Secondary: measure changes in blood PCSK9 and LDL-C levels

Initial update: safety and pharmacodynamic data from 14 participants across first three cohorts of Heart-2 trial



Population: HeFH and/or premature coronary artery disease patients who require additional LDL-C lowering



Intervention:
Single dose administered as a 2- to 4-hour peripheral intravenous infusion¹

Phase 1b
Single ascending dose, n = 3 – 9 per cohort

0.3 mg/kg (n=4)

0.45 mg/kg (n=6)

0.6 mg/kg (n=4)

0.7 mg/kg

Initial data from first 14 participants dosed across first three cohorts with ≥ 28 days of follow up

Phase 2*
Expect first patient dosed H2 2025

Doses selected based on findings from Phase 1

Objectives:

- Primary: evaluate safety and tolerability
- Secondary: measure changes in blood PCSK9 and LDL-C levels

Clinical safety: VERVE-102 was well-tolerated across all dose levels

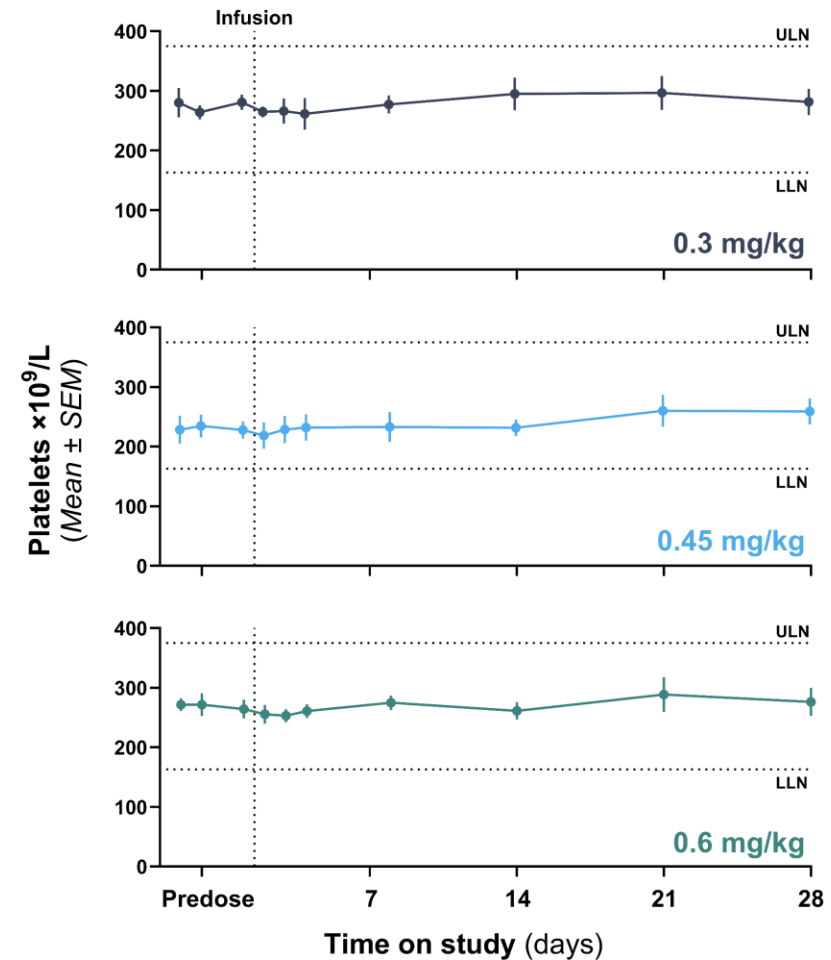
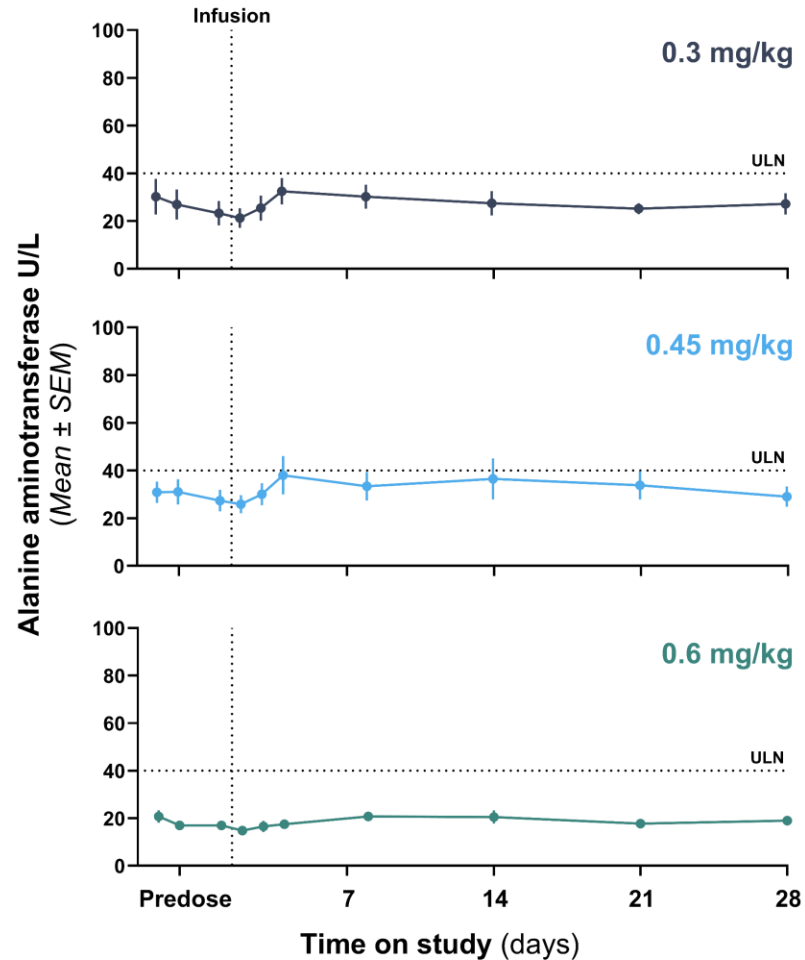
- No treatment-related SAEs and no DLTs

- No clinically significant laboratory abnormalities

- No cardiovascular events

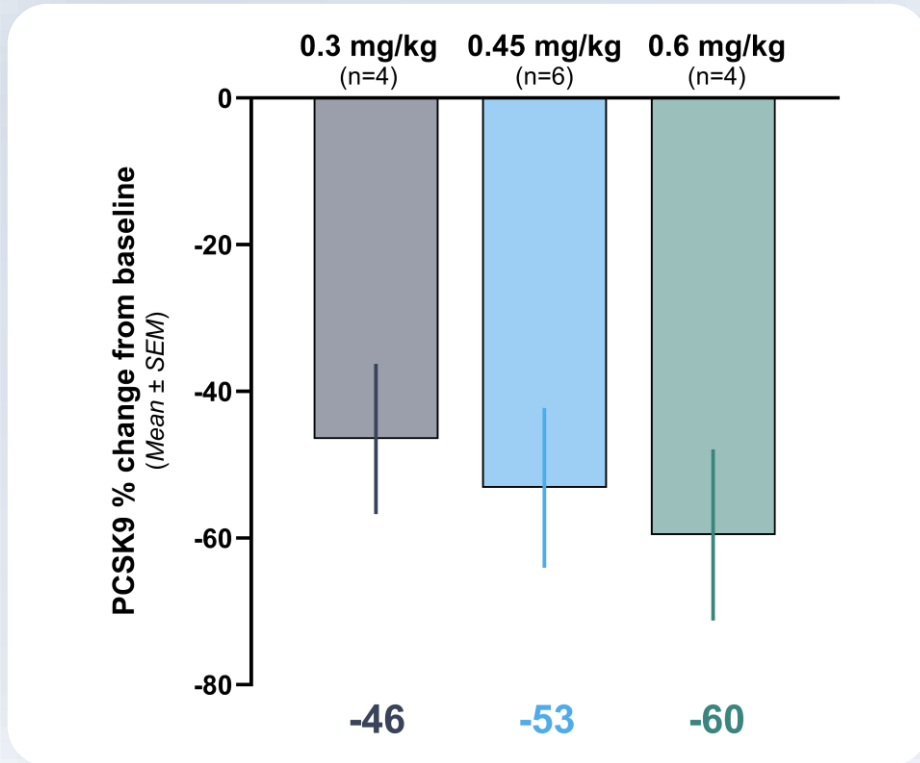
- Across all 14 participants, there was one infusion-related reaction (IRR)
 - Single Grade 2 IRR in a participant dosed at 0.6 mg/kg (transient symptoms that resolved with acetaminophen)

Laboratory assessment: no clinically significant changes in alanine aminotransferase (ALT) or platelets at any dose level following VERVE-102 infusion

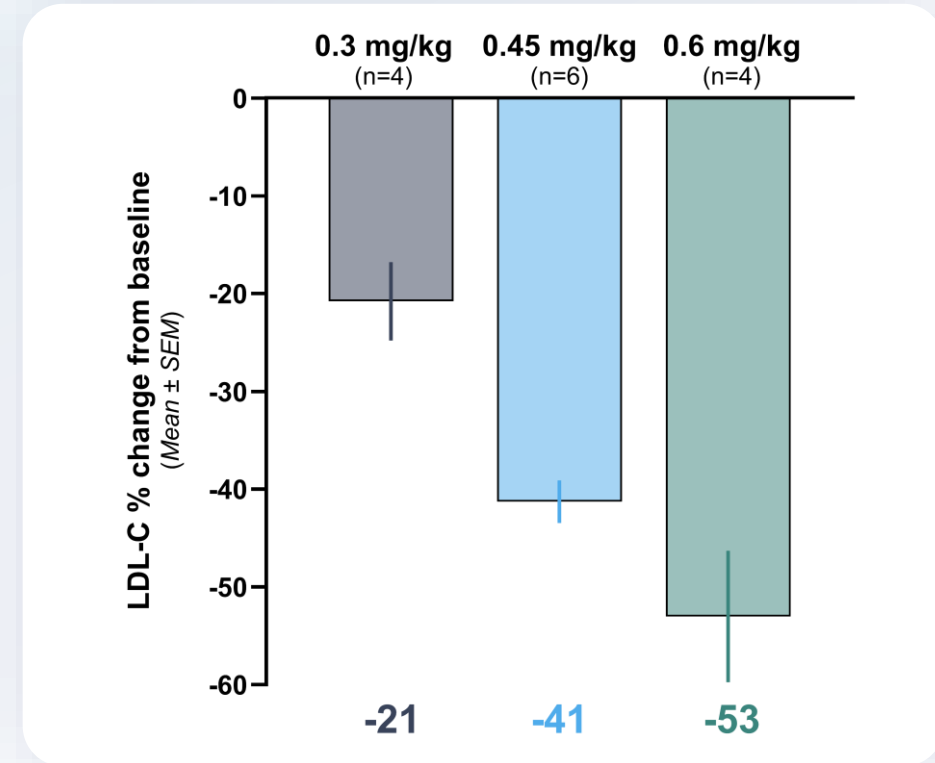


Single infusion of VERVE-102 led to dose-dependent reductions in blood PCSK9 protein and blood LDL-C

PCSK9 protein reduction:
mean reduction of 60% observed in highest weight-based dose group

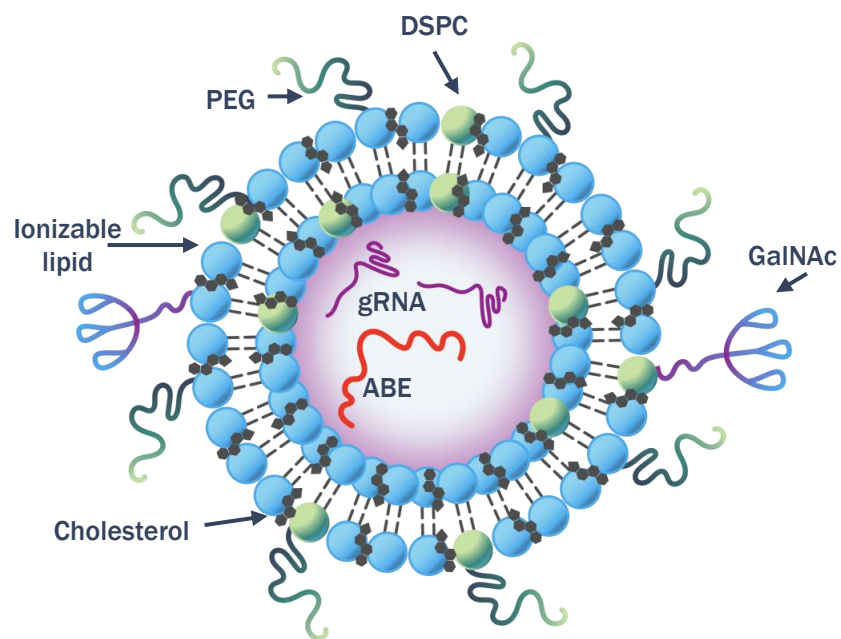


LDL-C reduction:
mean reduction of 53% observed in highest weight-based dose group



Fixed dose groups: Verve evaluated data by total RNA dose, in line with the field's shift towards fixed doses

VERVE-102



Total RNA Dose

Total RNA dose refers to the total weight (in mg) of the RNA in VERVE-102

In any given weight-based cohort, there is a range of total RNA doses administered

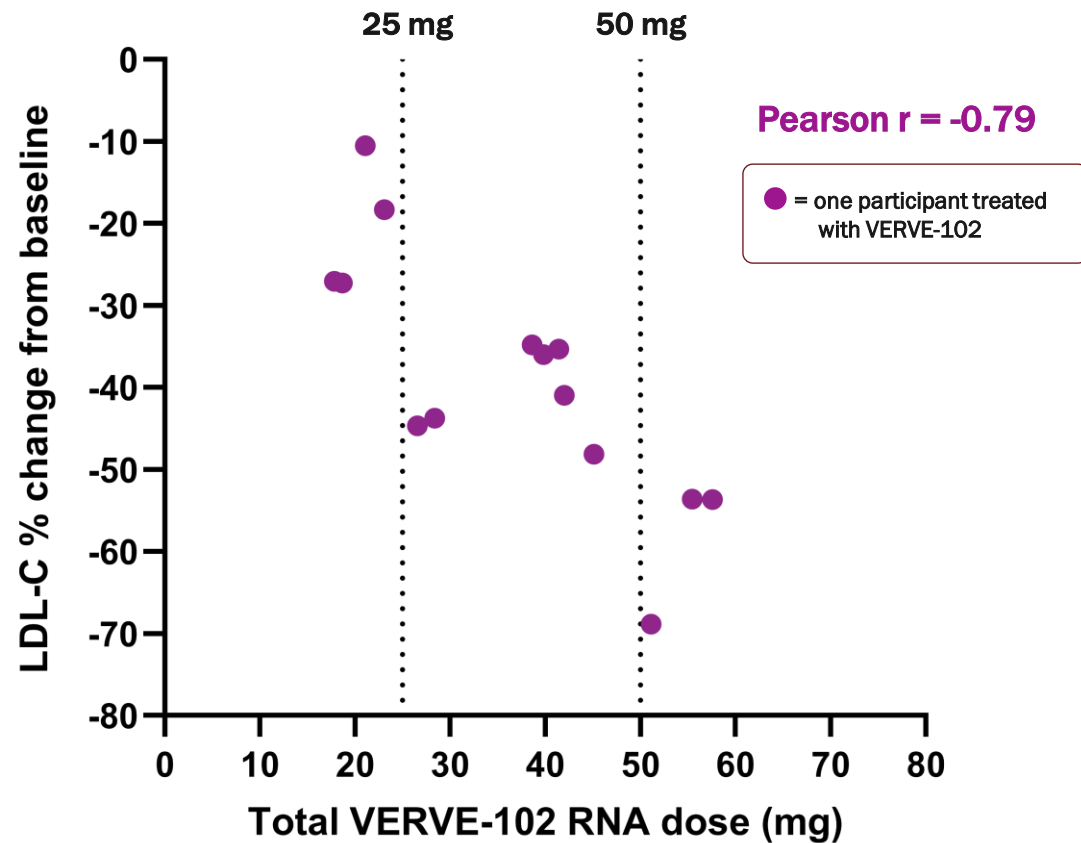
E.g., at 0.6 mg/kg dose:

60 kg Person
Receives:
36 mg total RNA

100 kg Person
Receives:
60 mg total RNA

LDL-C by total RNA dose, per participant: across 14 participants, strong dose-dependent response observed with near-linear relationship

Maximum LDL-C reduction of 69%



Total RNA Ranges:

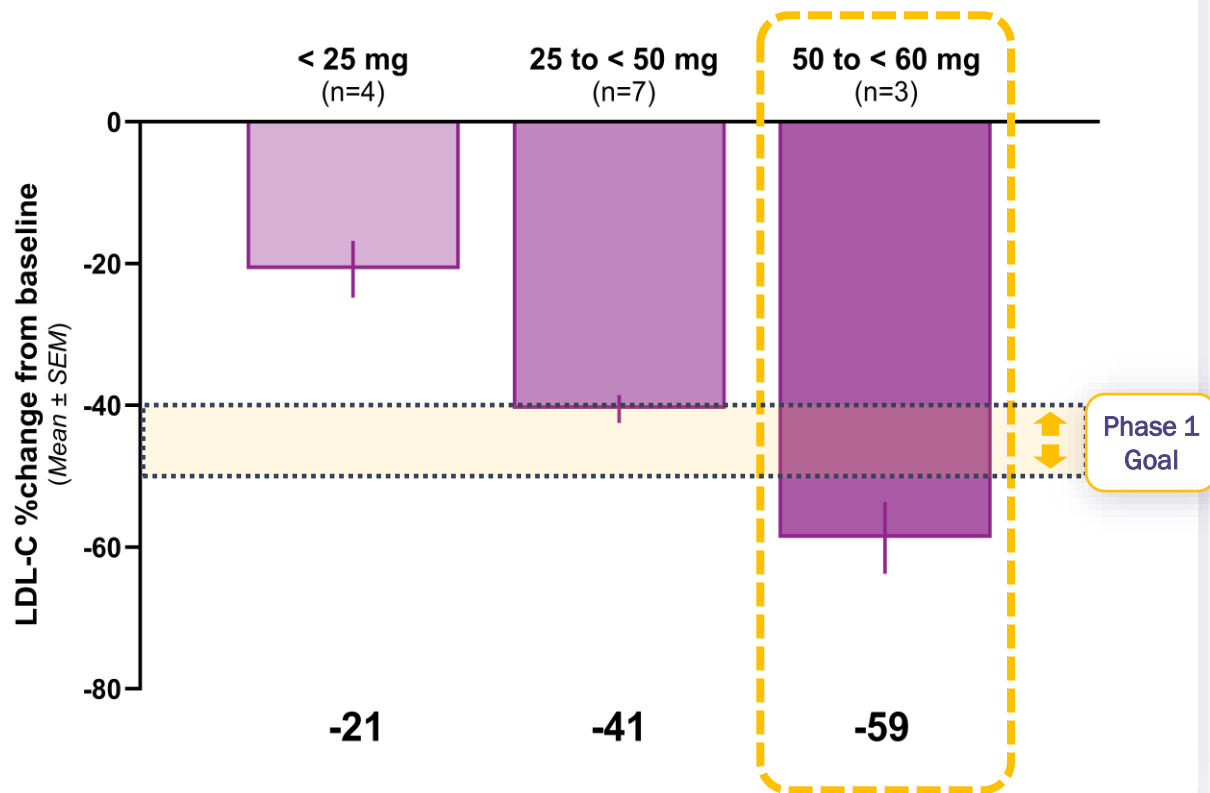
< 25 mg

25 - < 50 mg

50 - < 60 mg

LDL-C: mean reduction of 59% in blood LDL-C observed in highest total RNA dose group of VERVE-102

All participants who received ≥ 50 mg achieved $> 50\%$ LDL-C reduction from baseline



| VERVE-102 dose range | < 25 mg | 25 - < 50 mg | 50 - < 60 mg |
|--------------------------------------|---------|--------------|--------------|
| Participants (n) | 4 | 7 | 3 |
| Mean total RNA dose | 20 mg | 37 mg | 55 mg |
| Mean LDL-C % reduction from baseline | -21% | -41% | -59% |

Takeaways from the initial data of the Heart-2 clinical trial

VERVE-102 was well-tolerated at all dose levels with proprietary GalNAc-LNP delivery platform

- No treatment-related SAEs and no DLTs
- No clinically significant laboratory abnormalities and no cardiovascular events
- One infusion-related reaction across 14 participants treated

Strong dose-dependent response with total RNA dose identified as a key driver of pharmacodynamics

At total RNA dose \geq 50 mg, each participant achieved LDL-C reductions from baseline $>$ 50%, with mean LDL-C reduction of 59% and a maximum reduction of 69% in a single participant

Next steps for VERVE-102: expect first patient to be dosed in Phase 2 in H2 2025¹

Enrollment ongoing in the 0.7 mg/kg cohort in the Heart-2 clinical trial

Plan to disclose final data from dose escalation portion of the Heart-2 clinical trial in H2 2025

Anticipate delivery of opt-in package to Lilly in H2 with potential decision by year-end 2025

Expect first patient to be dosed in Phase 2 trial in H2 2025¹

Beyond the data: VERVE-102 program poised for success

SUCCESS FACTORS FOR VERVE-102

Time to market

- Phase 1 enrollment pace has exceeded expectations
- 5 CTAs & U.S. IND expand global footprint for Phase 2 onwards
- FDA Fast Track designation received

Capital

- Cash runway estimated into mid-2027, sufficient to support completion of the Phase 2 trial
- Lilly decision for opt-in at end-of-year; opt-in would defray costs and extend runway further

Manufacturing

- Consistent supply established for Phase 1 and 2 trials; transferring processes to commercial-scale CDMOs
- Low cost of goods expected given precedent for analogous at-scale RNA / LNP products

Commercial

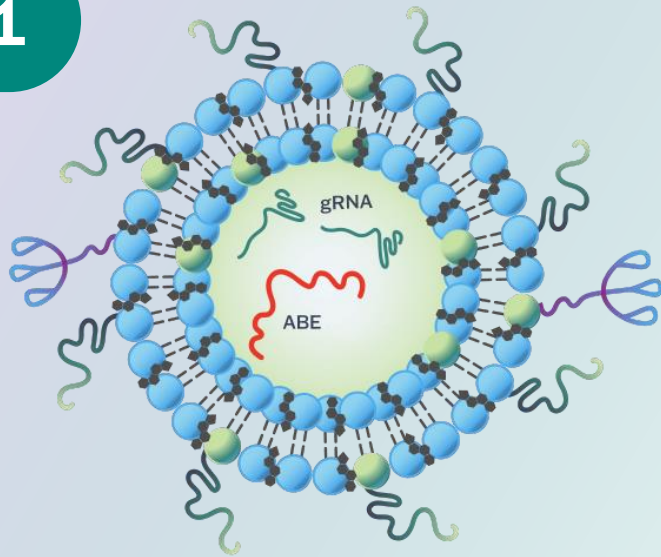
- WW PCSK9 market of ~\$4B; growing at ~40% year-over-year
- Strong enthusiasm for VERVE-102 amongst surveyed patients and HCPs^{1,2}

ANGPTL3 program: **VERVE-201**

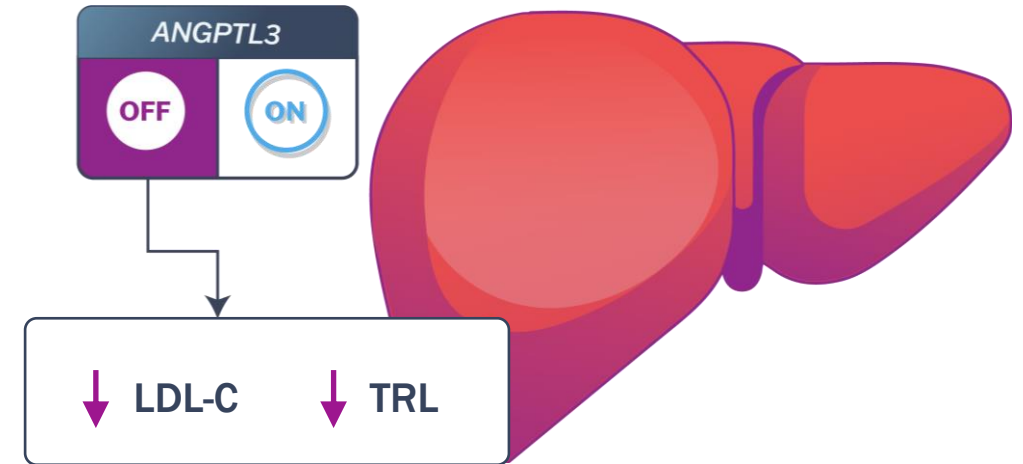


Inactivation of hepatic *ANGPTL3* is expected to lower circulating LDL-C and triglyceride concentrations

VERVE-201



- Genetic and pharmacologic validation of target
- *ANGPTL3* protein produced almost exclusively in the liver
- Mechanism of LDL-C lowering is fully independent of functional LDLR



***ANGPTL3* inactivation by introducing premature stop codon**

ANGPTL3 inactivation has the potential to treat a broad range of lipid disorders that have a large unmet need

Homozygous FH¹

LDL-C \geq 500 mg/dL

> 3,000

Refractory Hypercholesterolemia²

(ASCVD patients not at LDL-C goal on max standard-of-care)

~4 million

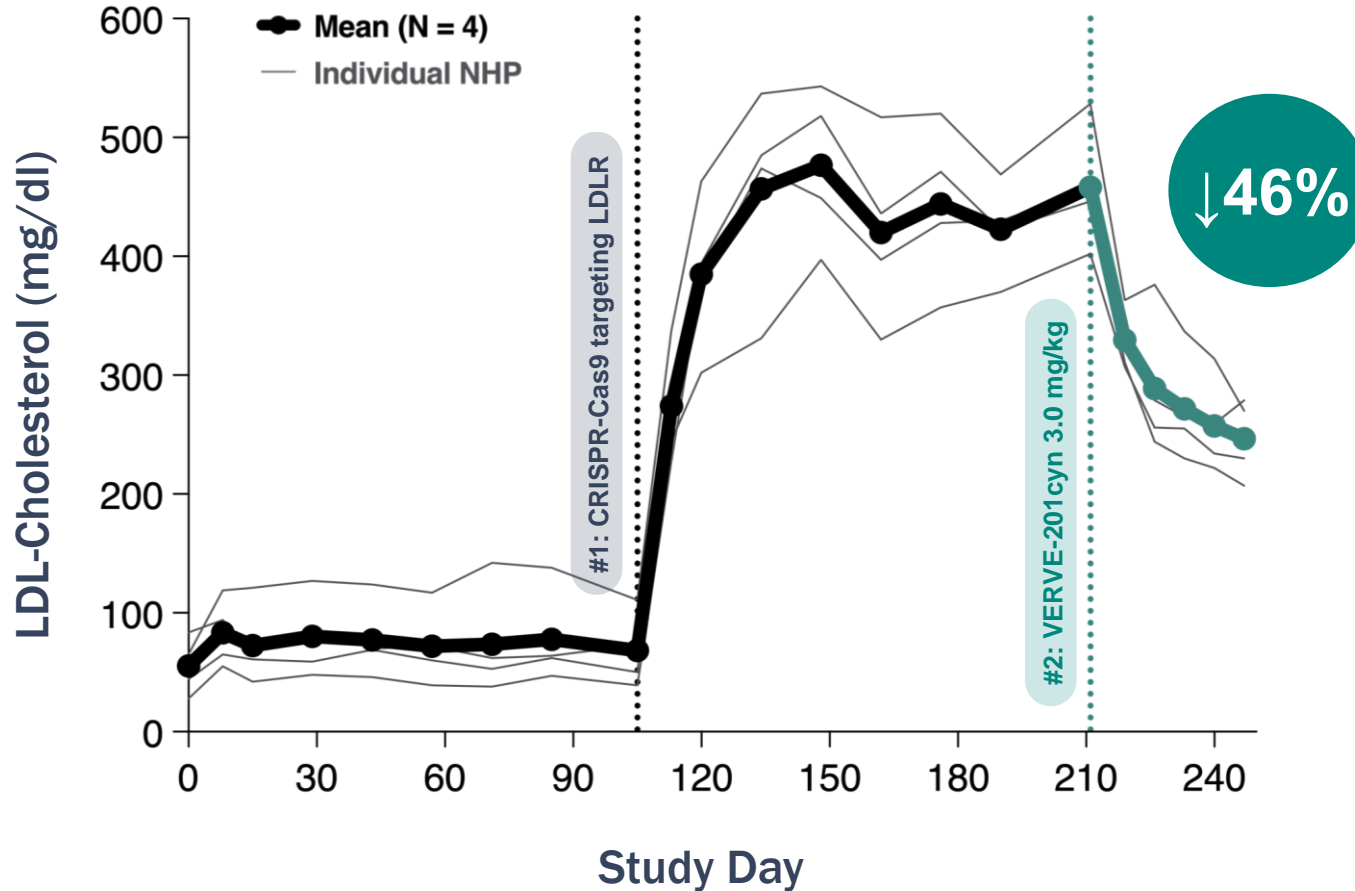
Severe HTG³

TG \geq 500 mg/dL

> 10 million

PREVALENCE (U.S. + EU)

In LDLR-deficient NHPs treated with VERVE-201cyn, 46% mean decrease in LDL-C observed (458 to 247 mg/dL)



Dosed with VERVE-201cyn

- Mean LDL-C decreased from 458 to 247 mg/dL
- VERVE-201cyn in NHPs:
 - 46% decrease in LDL-C
 - 54% decrease in TG

Pulse-1: Phase 1b clinical trial designed to evaluate safety and tolerability of VERVE-201 (ANGPTL3); anticipated program update in 2H 2025



Population:



- Males and females (age 18 to 70)
- Refractory hypercholesterolemia
- Require additional LDL-C lowering despite maximally tolerated standard of care therapies, potentially including PCSK9 inhibitors

Single Ascending Dose:

- Three to nine participants per cohort receive a single dose; adaptive design

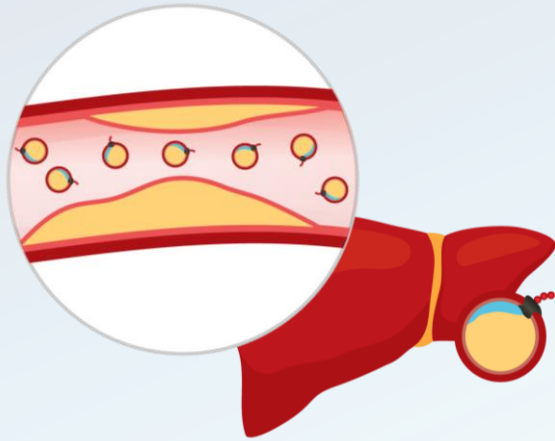
Trial Endpoints:

- Primary: evaluate safety and tolerability
- Secondary: changes in blood ANGPTL3 and LDL-C levels

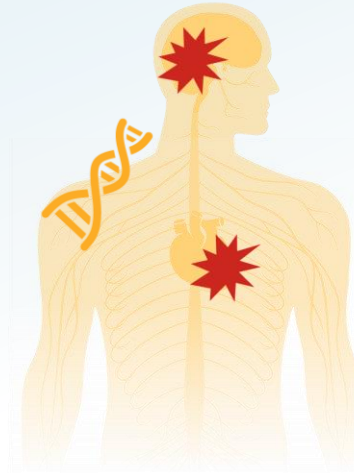
Lp(a) program: **VERVE-301**



Lipoprotein(a), or Lp(a), is a major area of unmet need



Lp(a) is an LDL-like particle with apolipoprotein(a) covalently linked to apolipoprotein B; produced in the liver and circulates in the blood



Lp(a) is a genetically validated, independent **risk factor for ASCVD, ischemic stroke, thrombosis, and aortic stenosis**



~13M people in the U.S. and EU have **elevated Lp(a)¹**



~25% of ASCVD patients with Lp(a) **> 125 nmol/L** (~ 50 mg/dL)¹



Currently no therapies approved for the treatment of elevated Lp(a)

VERVE-301: targeting the *LPA* gene to address a major independent risk factor for ASCVD

NOMINATION OF DEVELOPMENT CANDIDATE

Milestone payment received from Eli Lilly



Designed to durably inactivate the *LPA* gene in the liver with novel, *in vivo* gene editing technology



Delivered by Verve's GalNAc-LNP



DC selection based on acceptable off-target profile, dose-response profile, and apo(a) reduction

Focused execution in 2024; milestone-rich 2025

2024 ACHIEVED MILESTONES

PCSK9 PROGRAM

- Potent and durable LDL-C lowering with PCSK9 editing approach
- Dose escalation of VERVE-102 (using proprietary GalNAc-LNP liver delivery technology) with no clinically significant lab abnormalities

ANGPTL3 PROGRAM

- First patient dosed with VERVE-201



2025 ANTICIPATED MILESTONES

PCSK9 PROGRAM

- Initial Phase 1b data for VERVE-102 (2Q 2025)
- Final data for dose escalation portion of the Phase 1b for VERVE-102 (2H 2025)
- Deliver opt-in package to Lilly (2H 2025)
- Initiate Phase 2 clinical trial (2H 2025)¹

ANGPTL3 PROGRAM

- Program update for VERVE-201 (2H 2025)

LPA PROGRAM

- DC nomination of VERVE-301