An investigational in vivo base editing medicine targeting *ANGPTL3*, VERVE-201, achieves potent and LDLR-independent liver editing in mouse models

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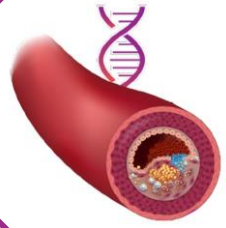
August 27, 2023

Forward looking statements

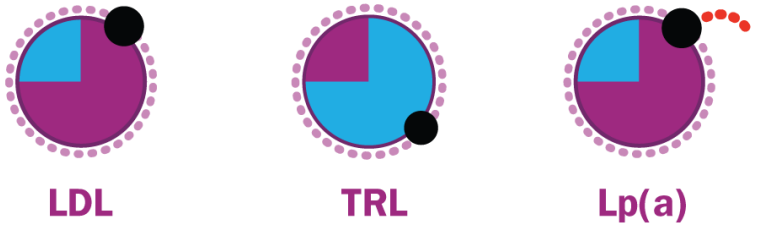
This presentation contains "forward-looking statements" within the meaning of the Private Securities Litigation Reform Act of 1995 that involve substantial risks and uncertainties, including statements regarding the expected timing of initiating clinical trials of VERVE-201; the company's research and development plans; and the potential advantages and therapeutic potential of the company's programs, including VERVE-201. All statements, other than statements of historical facts, contained in this presentation, 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 company's ability to timely submit and receive approvals of regulatory 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, VERVE-102, 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 presentation 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.

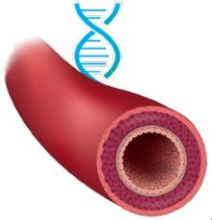
What causes ASCVD and what's a solution?
Verve developing 'once and done' medicines for 3 causal drivers



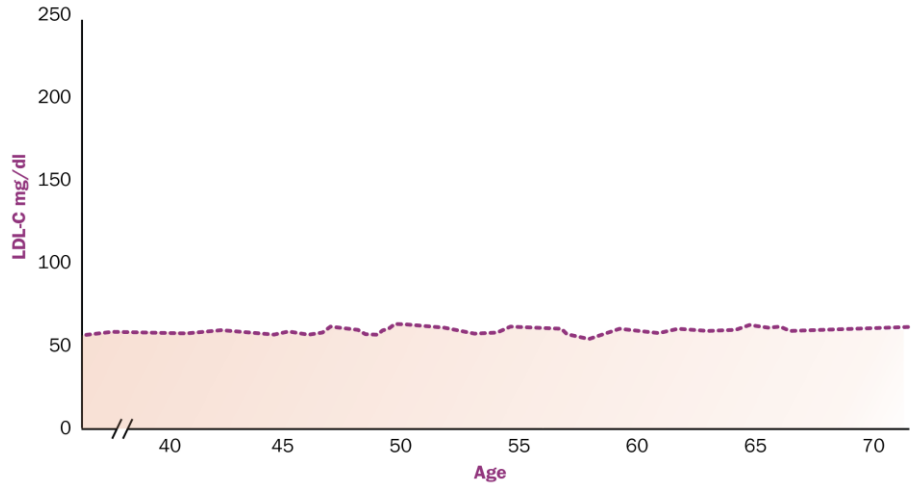
High cumulative life-long exposure to blood cholesterol clogs heart arteries

Cholesterol carried in 3 lipoproteins:





Solution: keep blood cholesterol as low as possible for as long as possible



Abbreviations: ASCVD = atherosclerotic cardiovascular disease; LDL = low-density lipoprotein cholesterol; TRL = triglyceride-rich lipoproteins

Two ASCVD indications with unmet medical need: Homozygous FH and refractory hypercholesterolemia

Patients with homozygous familial hypercholesterolemia (HoFH)

Rare, orphan disease

LDL-C levels above 500 mg/dL

~2,800 patients in the U.S./EU

Patients with refractory hypercholesterolemia

ASCVD not at LDL-C goal on oral + PCSK9i

~7M patients in the U.S.[1]/EU

1. O'Donoghue et al., *Circulation*. 2022;146:1109–1119.

VERVE-201: adenine base editor mRNA + gRNA packaged in a GalNAc-LNP; edit designed to turn off *ANGPTL3*

DRUG SUBSTANCES

RNA components encode base editor and a guide targeting *ANGPTL3* gene

- mRNA for adenine base editor
- gRNA localizes editor to *ANGPTL3* gene

+

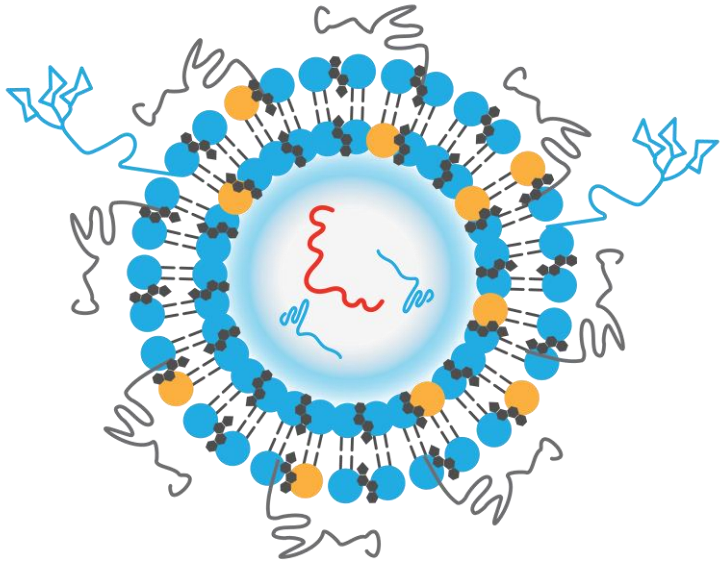
DELIVERY VEHICLE

Lipid nanoparticle for delivery to liver cell includes 5 components

- Ionizable amino lipid
- DSPC
- Cholesterol
- GalNAc
- PEG

=

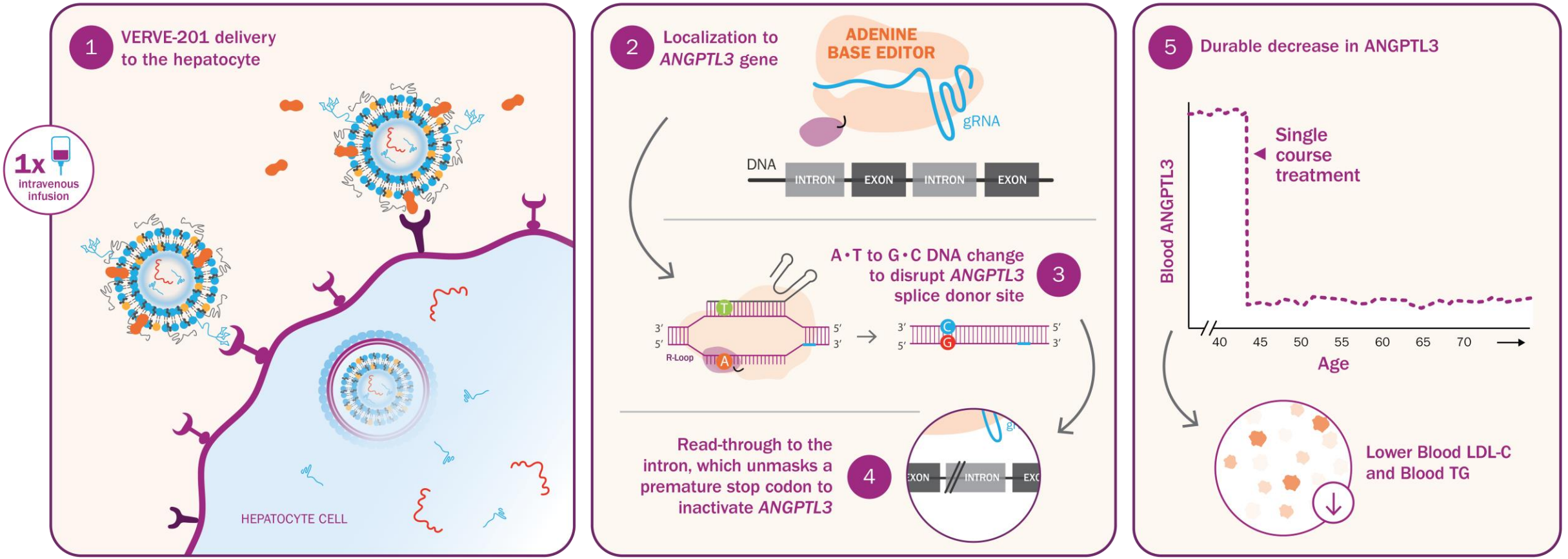
VERVE-201



Abbreviations: *ANGPTL3* = angiopoietin-like 3; DSPC = 1,2-distearoyl-sn-glycero-3-phosphocholine; GalNAc = *N*-acetylgalactosamine; GalNAc-LNP = GalNAc-lipid nanoparticle

Abbreviations: gRNA = guide RNA; mRNA = messenger RNA; PEG = polyethylene glycol

VERVE-201: single-course in vivo base-editing medicine administered intravenously to inactivate hepatic *ANGPTL3* and lower LDL-C and TGs



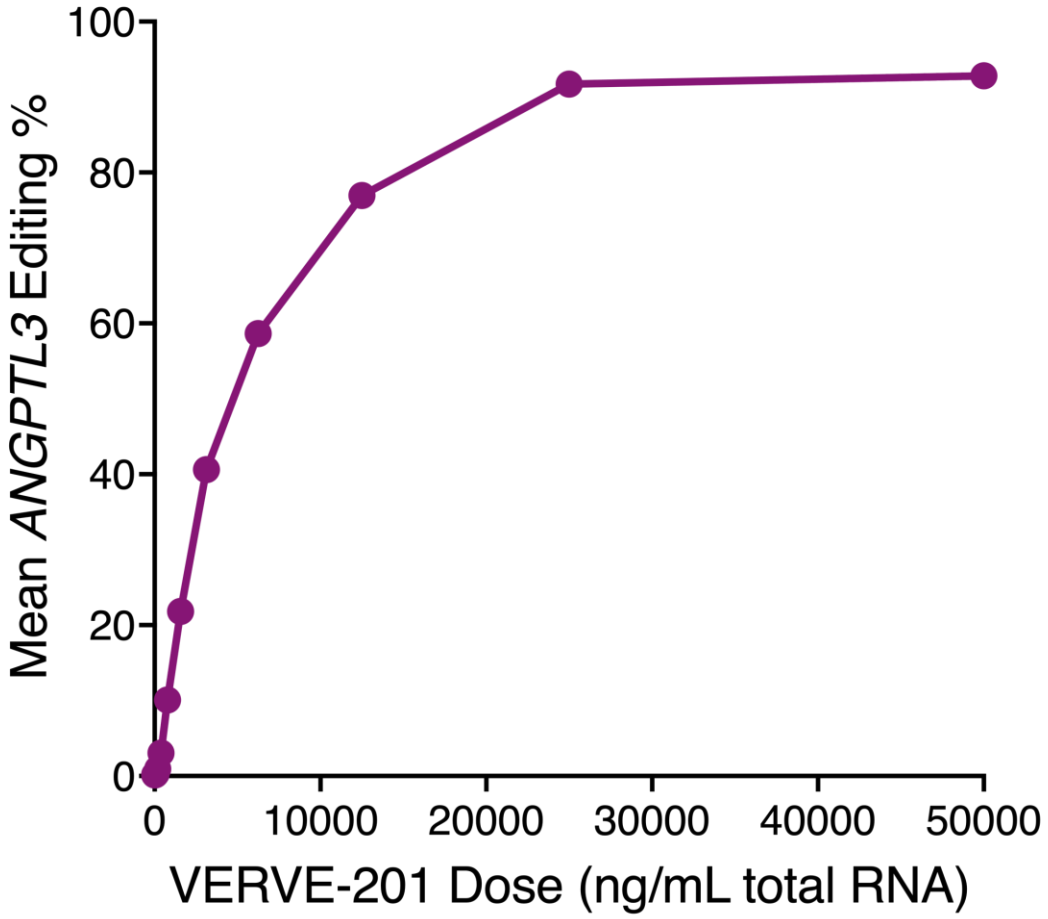
Lipid nanoparticle | Ionizable amino lipid | DSPC | Asialoglycoprotein receptor (ASGPR) | LDL receptor (LDLR) | GalNAc | apoE | mRNA | gRNA | PEG Lipid | Cholesterol

Abbreviations: A = adenine; *ANGPTL3* = angiopoietin-like 3; apoE = apolipoprotein E; C = cytosine; DSPC = 1,2-distearoyl-sn-glycero-3-phosphocholine; G = guanine; GalNAc = *N*-acetylgalactosamine

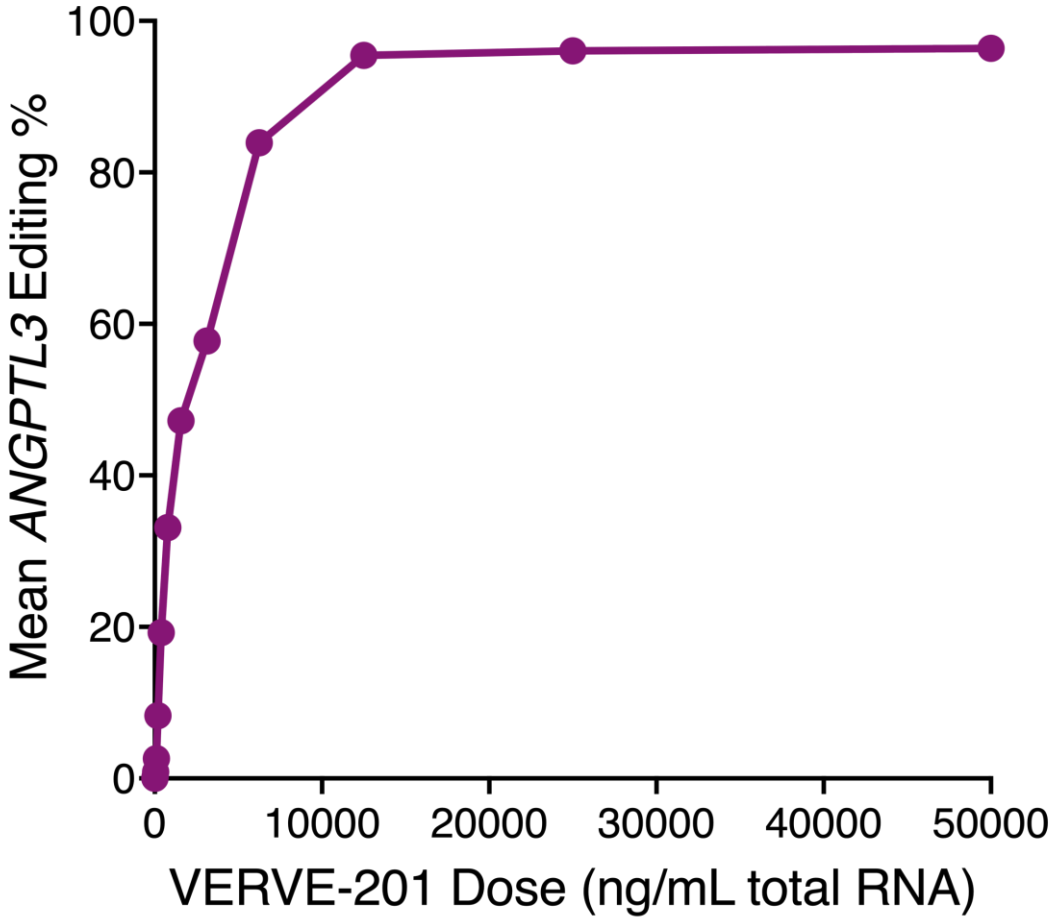
Abbreviations: gRNA = guide RNA; LDL-C = low-density lipoprotein cholesterol; mRNA = messenger RNA; PEG = polyethylene glycol; T = thymine; TGs = triglycerides

VERVE-201 achieved >90% *ANGPTL3* editing in vitro in primary human hepatocytes and the HuH-7 liver cell line

Primary Human Hepatocyte

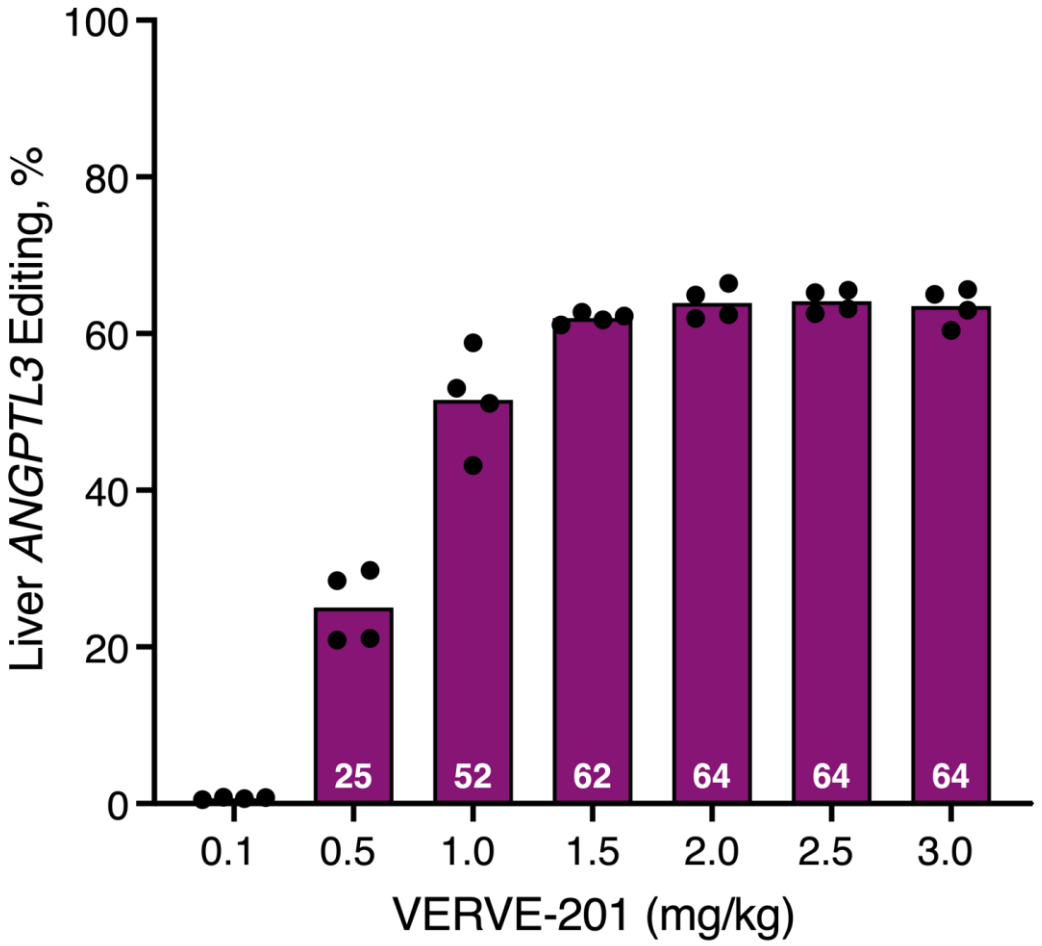


HuH-7 Liver Cell Line

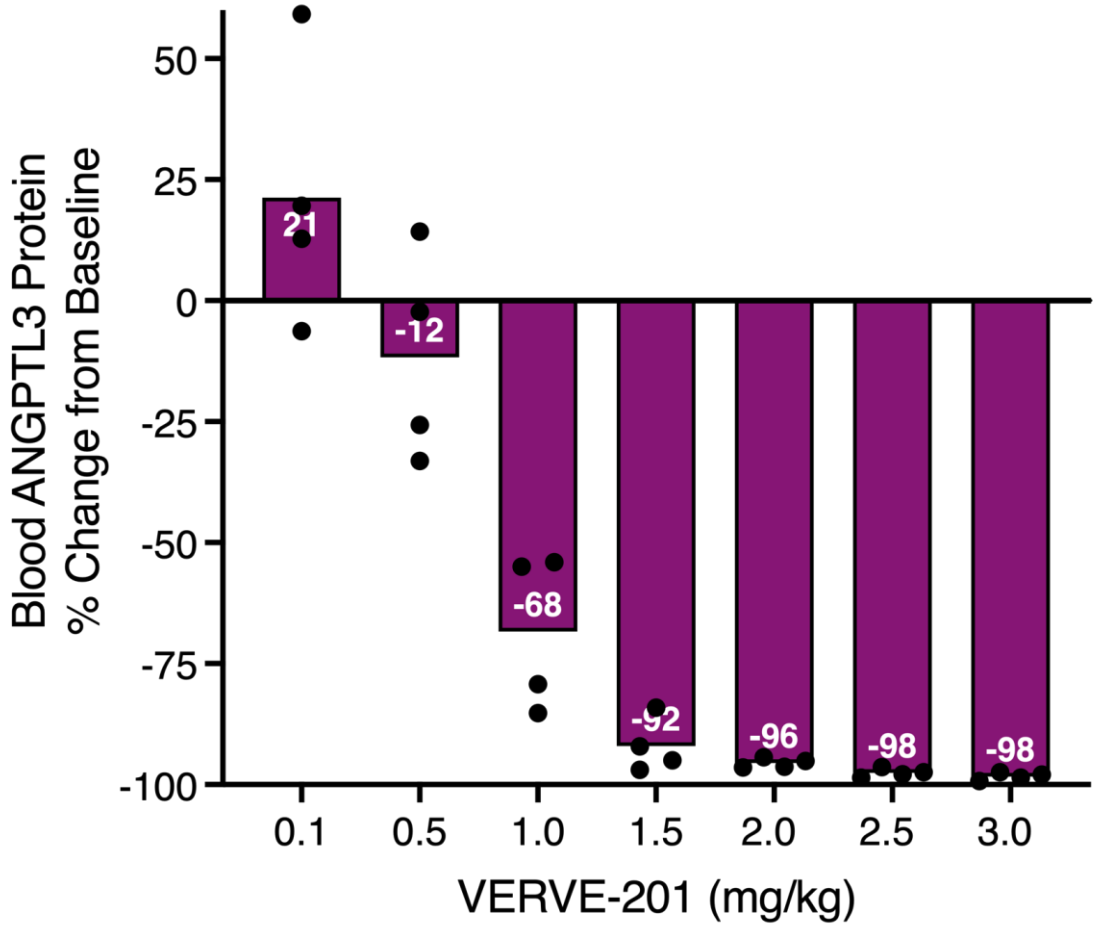


In human *ANGPTL3* transgenic mice* treated with VERVE-201, up to 98% reduction in blood ANGPTL3 at higher doses

Whole-liver *ANGPTL3* Editing

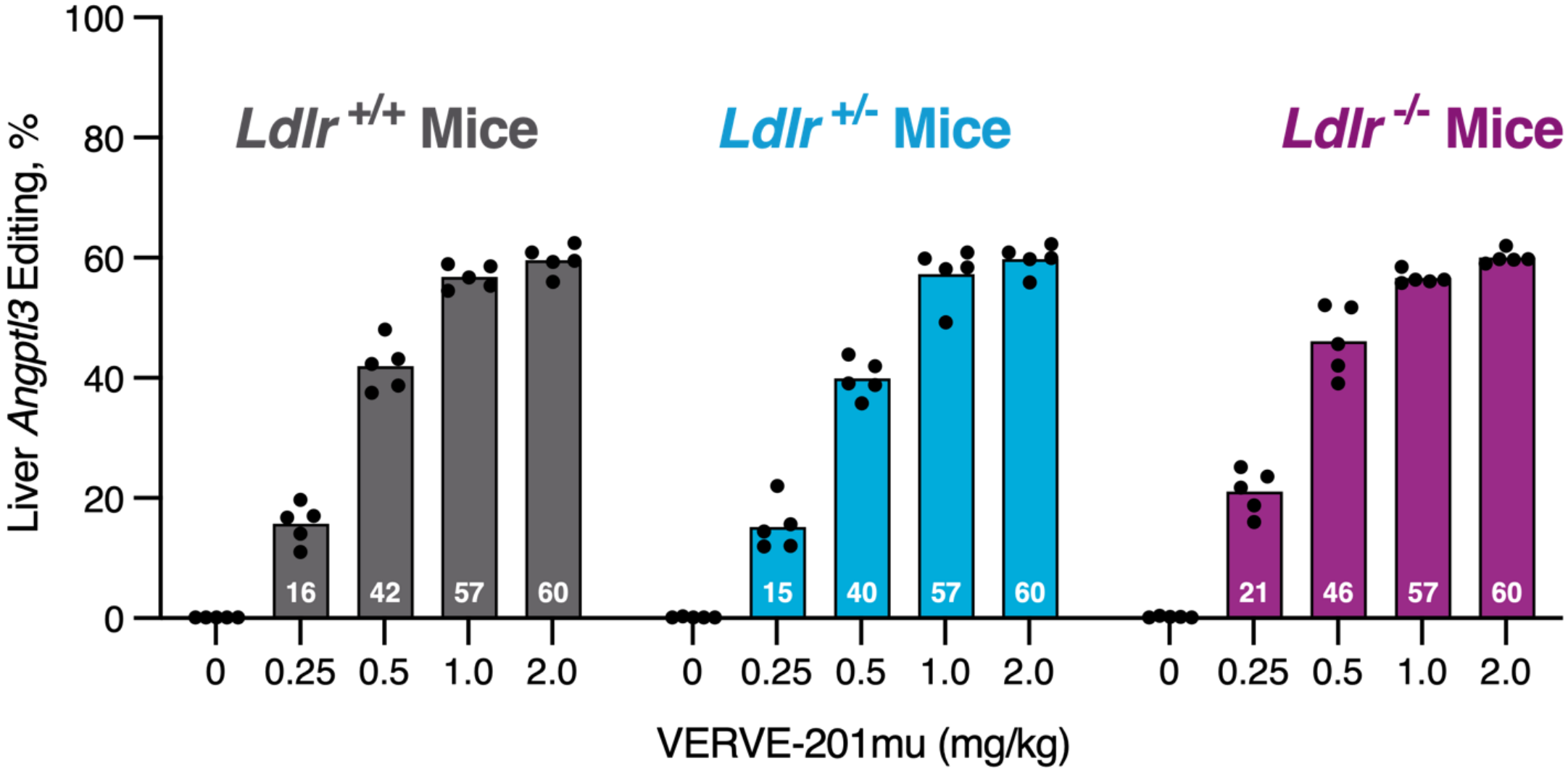


Blood ANGPTL3 Protein

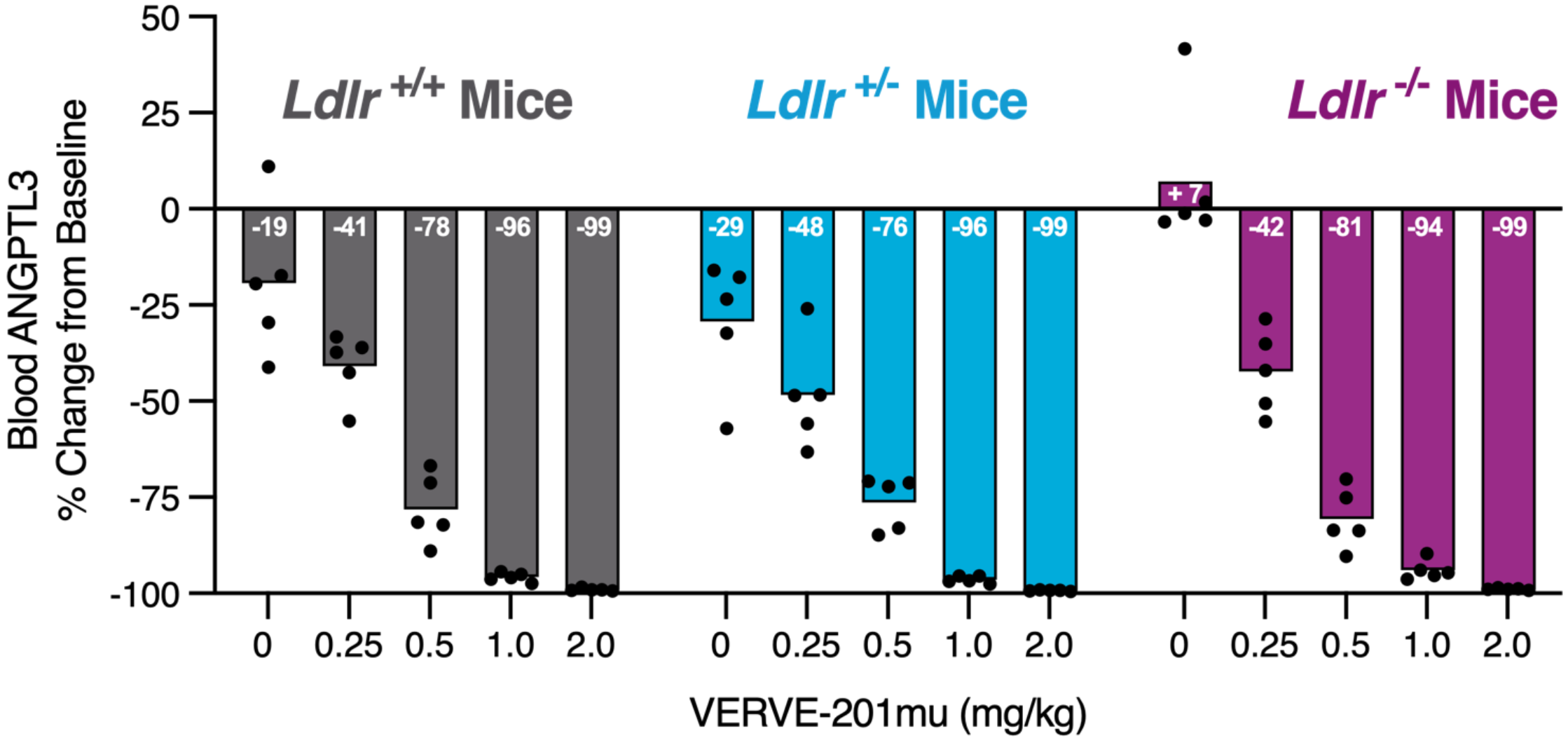


* Transgenic model generated via targeted homologous recombination to replace both copies of the murine *Angptl3* gene with the human *ANGPTL3* gene.

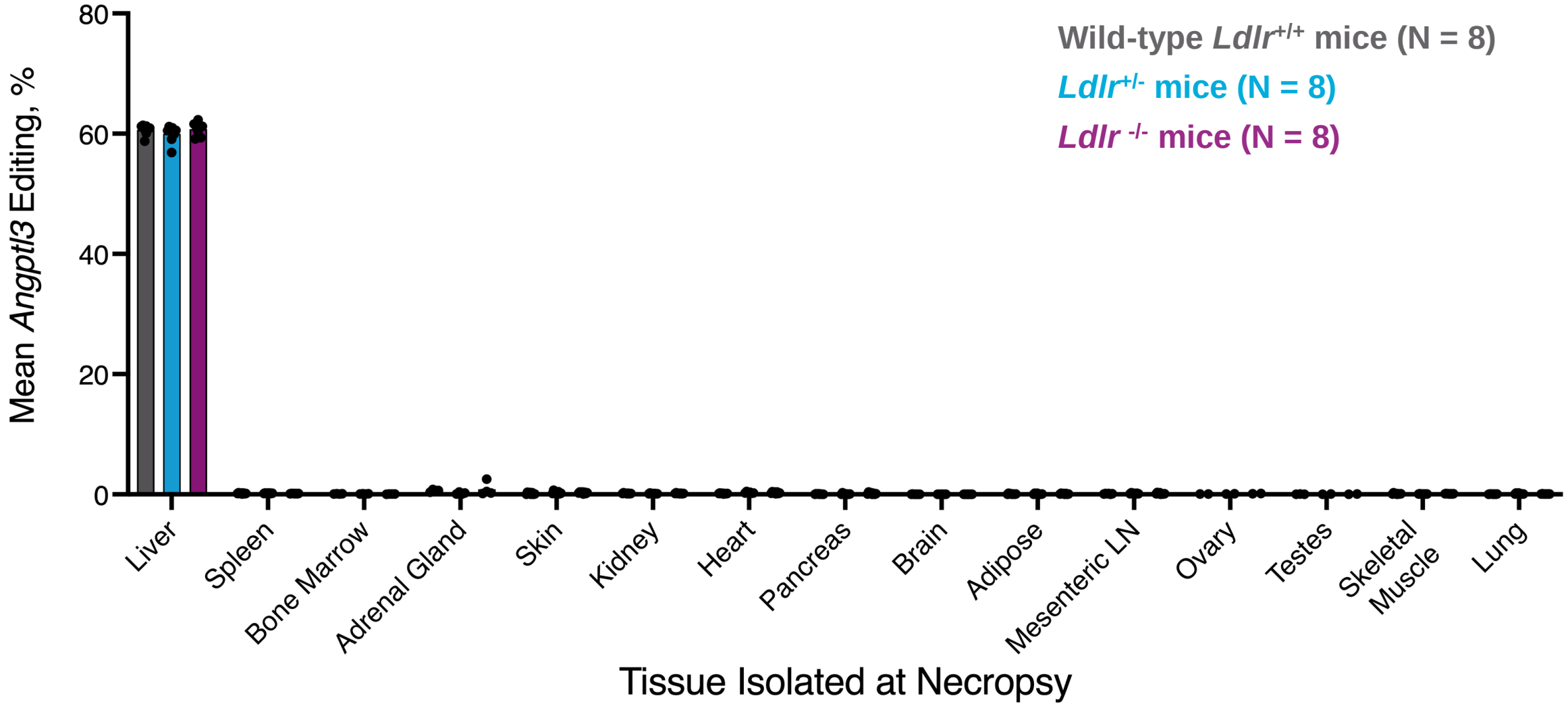
VERVE-201mu achieved whole-liver *Angptl3* editing up to 60% in wild-type *Ldlr*$^{+/+}$, *Ldlr*$^{+/-}$, and *Ldlr* $^{-/-}$ mice



VERVE-201mu achieved blood ANGPTL3 reduction of up to 99% in wild-type *Ldlr*$^{+/+}$, *Ldlr*$^{+/-}$, and *Ldlr* $^{-/-}$ mice



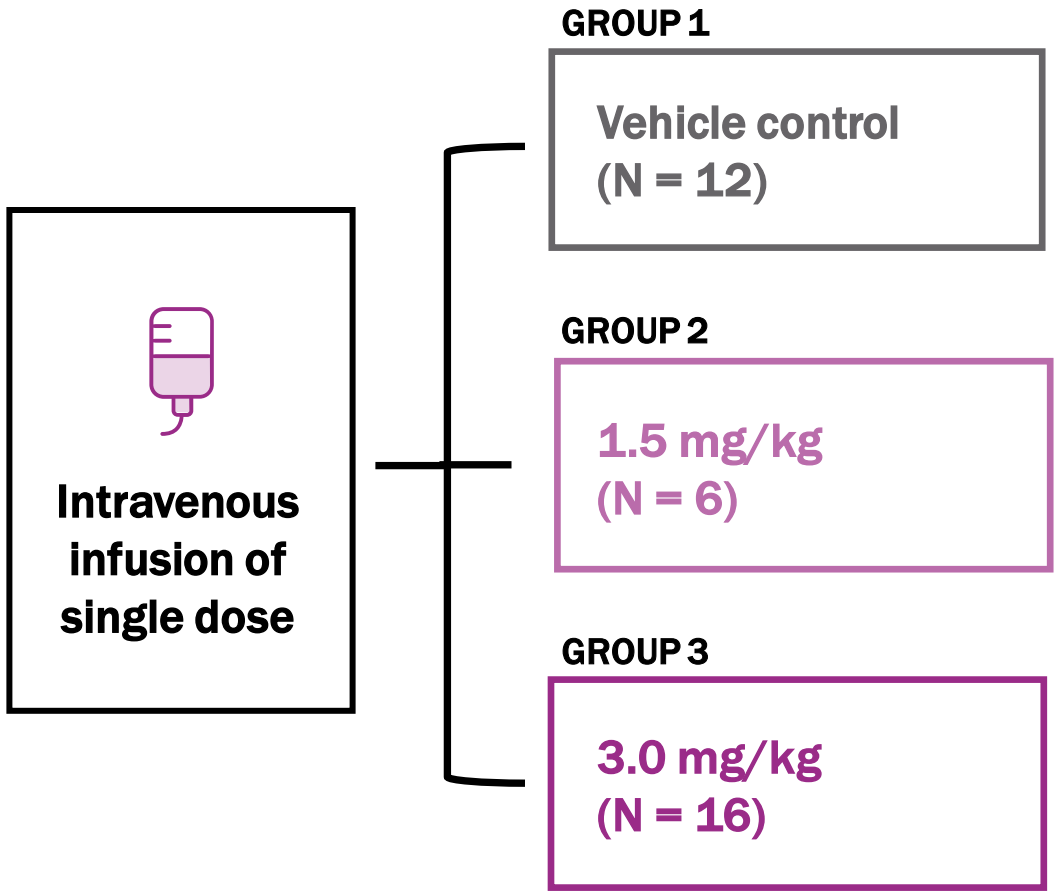
In wild-type *Ldlr*$^{+/+}$, *Ldlr*$^{+/-}$, and *Ldlr* $^{-/-}$ mice dosed with VERVE-201mu, liver-specific *Angptl3* editing observed



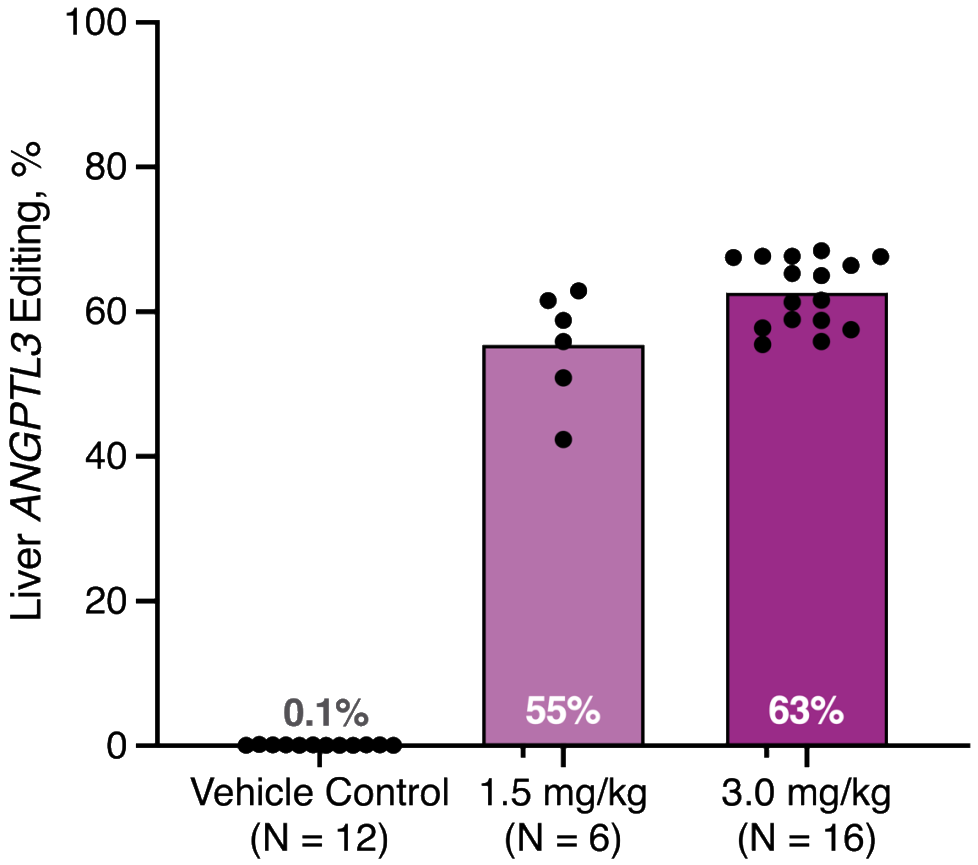
* *Angptl3* editing assessed in tissues isolated at scheduled necropsy 1 week following dosing with VERVE-201mu at a dose of 2 mg/kg.

In wild-type non-human primates, VERVE-201cyn achieved mean liver *ANGPTL3* editing of 63% at higher dose

Study of 34 Non-human Primates

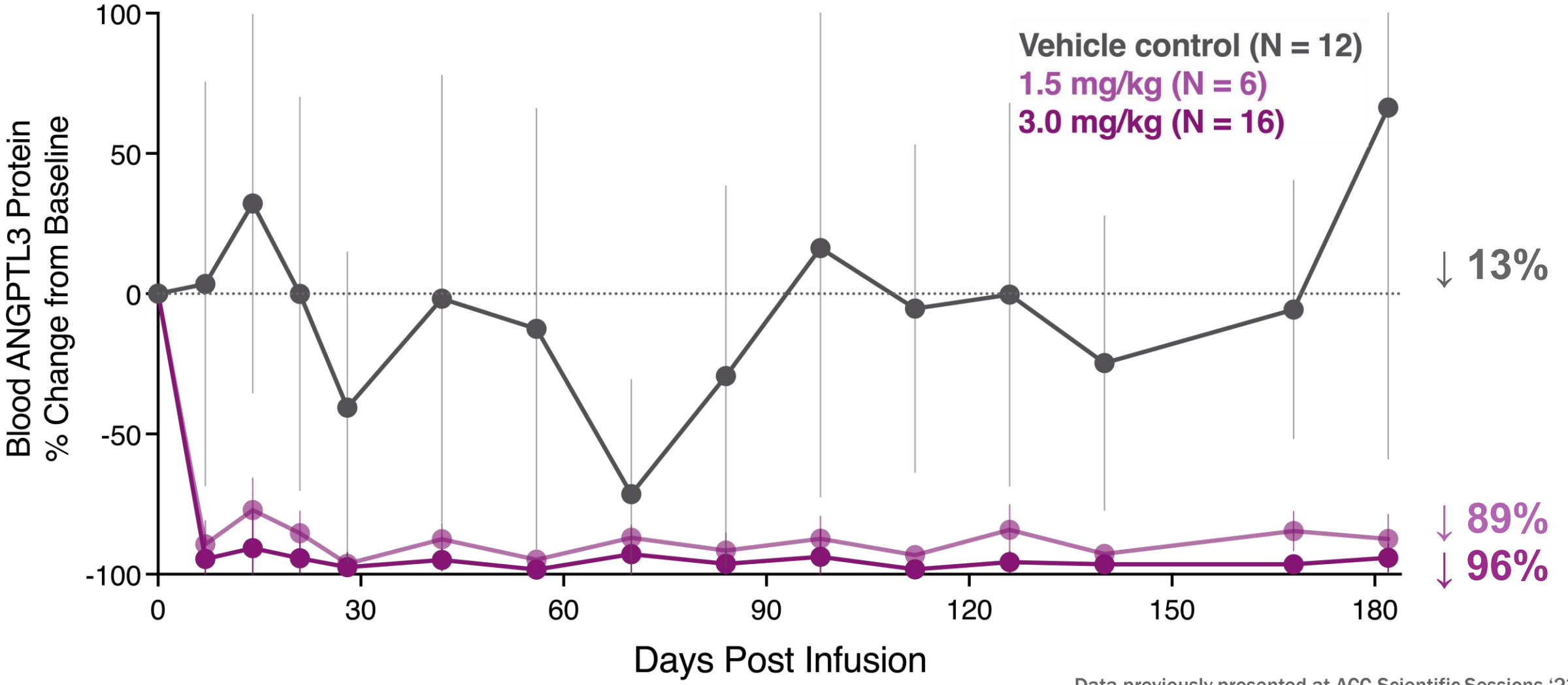


Liver *ANGPTL3* editing



Data previously presented at ACC Scientific Sessions '23.

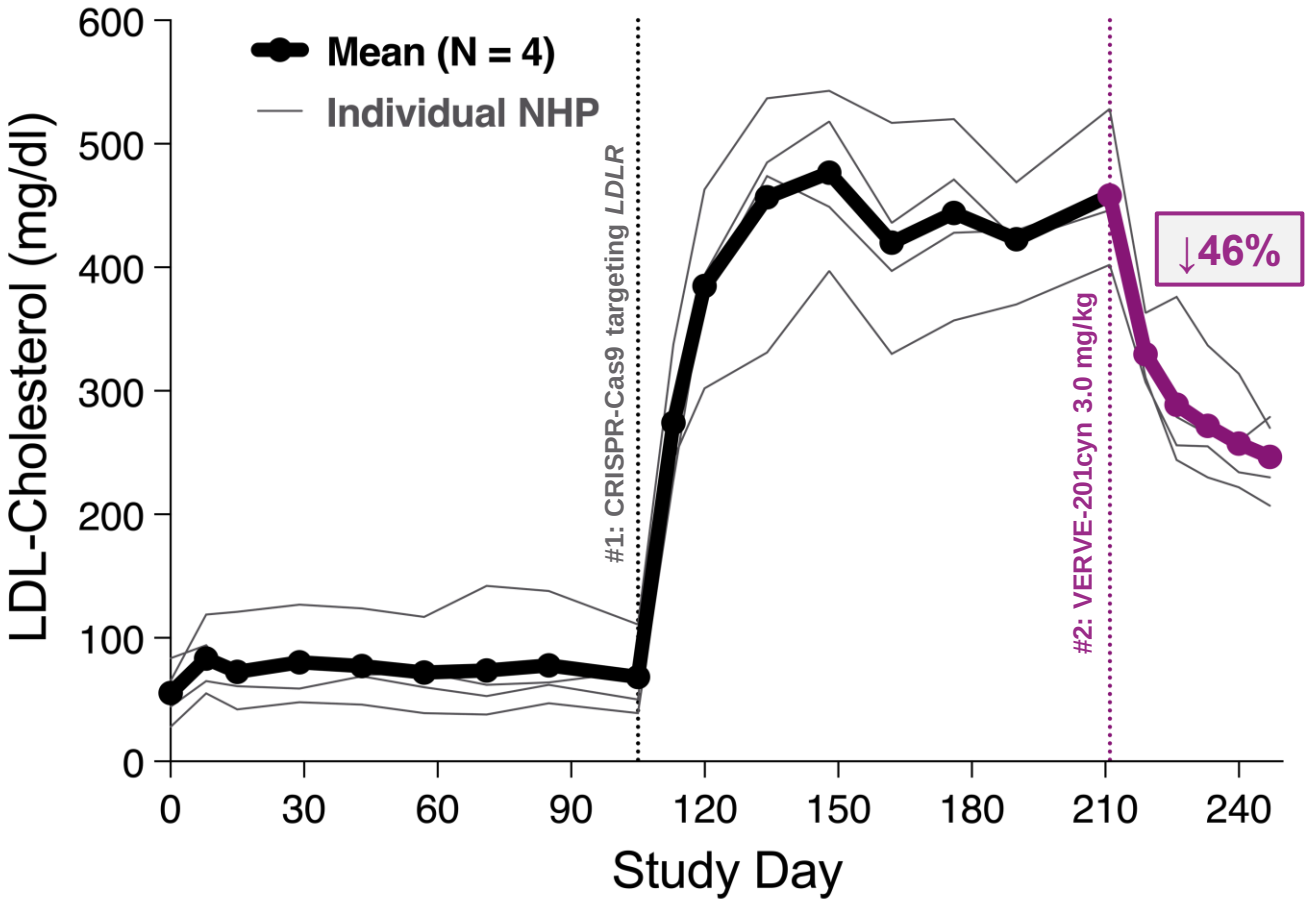
In wild-type non-human primates (NHPs), VERVE-201cyn achieved mean 96% reduction* in blood ANGPTL3 protein at higher dose



Data previously presented at ACC Scientific Sessions '23.

* Measured as time-weighted average % change from baseline from days 28 to 182 following dosing.

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



Step #1: Develop LDLR-deficient NHPs

- Because NHP model of LDLR-deficiency not readily available, treated 4 NHPs with CRISPR-Cas9 to inactivate *LDLR* in the liver and increase LDL-C.[1]

Step #2: Treat 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

Data previously presented at ACC Scientific Sessions '23.

1. Method previously described In Kasiewicz et al. *Nat Comm*, 2023;14(1):2776.

VERVE-201: base editing medicine designed to inactivate *ANGPTL3*
Anticipate initiation of Phase 1b clinical trial in 2H24

- VERVE-201 designed to address unmet need in homozygous familial hypercholesterolemia, a rare, severe disease with extremely high LDL-C and ASCVD risk
- Potential to expand to refractory hypercholesterolemia patient population
- VERVE-201 achieved potent and precise >90% *ANGPTL3* editing in human liver cells in vitro and up to 98% reduction in ANGPTL3 in vivo in human *ANGPTL3* transgenic mice
- GalNAc LNP delivery system enabled potent *Angptl3* liver editing and up to 99% knockdown in blood ANGPTL3 in both wild-type and LDLR-deficient mice
- In wild-type non-human primates, VERVE-201cyn was well-tolerated and achieved a durable and potent mean reduction in blood ANGPTL3 protein up to 96%