

Supplemental Data Tables and Figures

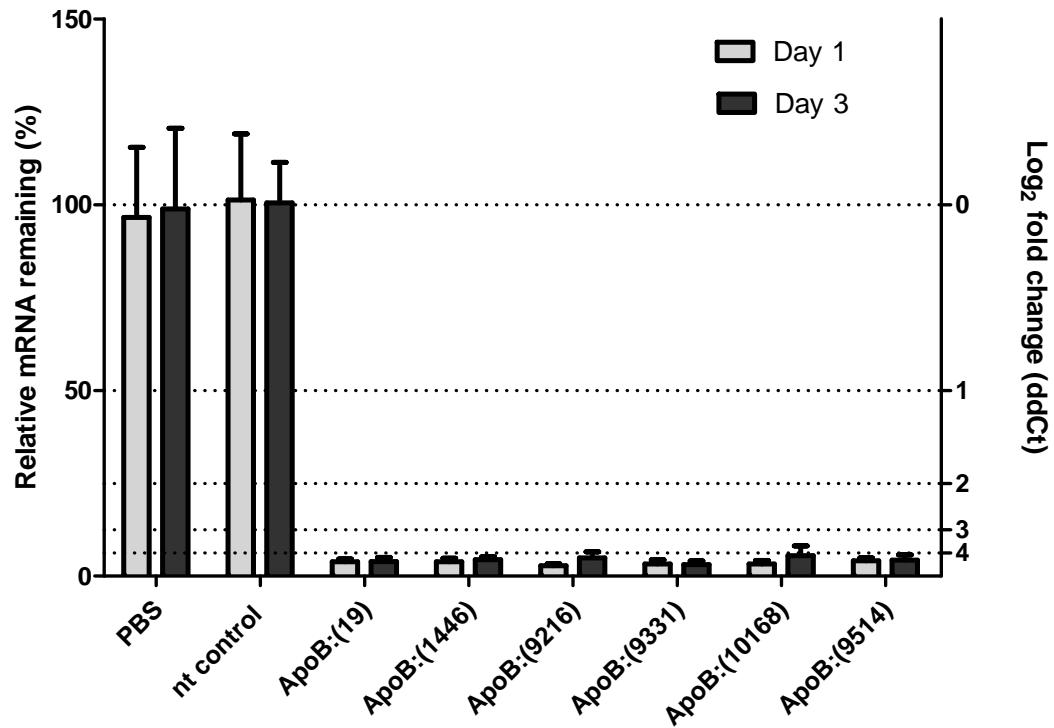
Supplemental Table 1. Changes in liver ApoB mRNA knockdown and serum lipid levels in $Ldlr^{+/-}$ CETP $^{+/-}$ mice at day 3 following a single 3 mg/kg dose of OCD-ApoB:(10168). Reduction in serum lipid profiles (including HDL) correlates with ApoB mRNA knockdown.

ApoB siRNA dose	mRNA	TC		HDL		non-HDL	
	% Expression	% change	p-value	% change	p- value	% change	p-value
	3.0 mg/kg	7.4	<0.0001	-56.0	0.0002	-81.7	<0.0001
1.0 mg/kg	13.9	-65.4	<0.0001	-52.4	0.0004	-78.5	<0.0001
0.3 mg/kg	42.9	-57.0	<0.0001	-34.5	0.0069	-79.7	<0.0001
0.1 mg/kg	5.5	-30.6	0.0002	-17.7	0.0946	-43.4	0.0002

Supplemental Table 2. Biological Pathways significantly enriched in liver upon ApoB KD.

Similar Set	Expectation	Collection
sterol metabolic process	3.87 E-17	GO Biological Process
sterol biosynthetic process	1.12 E-16	GO Biological Process
alcohol metabolic process	1.94 E-14	GO Biological Process
cholesterol metabolic process	2.87 E-14	GO Biological Process
Lipid synthesis	3.34 E-14	SwissProt Keywords
lipid metabolic process	1.54 E-12	GO Biological Process
small molecule metabolic process	1.14 E-11	GO Biological Process
steroid metabolic process	2.87 E-11	GO Biological Process
lipid biosynthetic process	1.18 E-09	GO Biological Process
steroid biosynthetic process	2.71 E-09	GO Biological Process

Supplemental Figure 1. *In vivo* efficacy of LNP201-ApoB siRNAs at day 1 and 3 post dosing in BALB/c mice. Animals were dosed i.v. with a single 3 mg/kg dose of ApoB siRNA-LNPs non-targeting control siRNA-LNP or PBS (vehicle) control. ApoB liver mRNA knockdown is over 90% for all siRNAs tested at day 1 and 3 post dosing.



Supplemental Figure 2. Increasing concentrations of LNP201-ApoB siRNA exhibit greater reductions of serum LDL on day 1 and day 7 post-treatment in individual *Ldlr^{+/−} CETP^{+/−}* mice. Mice were dosed i.v. with a single 0.3, 1.0, or 3.0 mg/kg dose of LNP201-ApoB:(10168) and their serum lipids determined at day 1 and 7 post siRNA dosing. Reductions in serum LDL levels are dose-dependent and very uniform among different animals.

