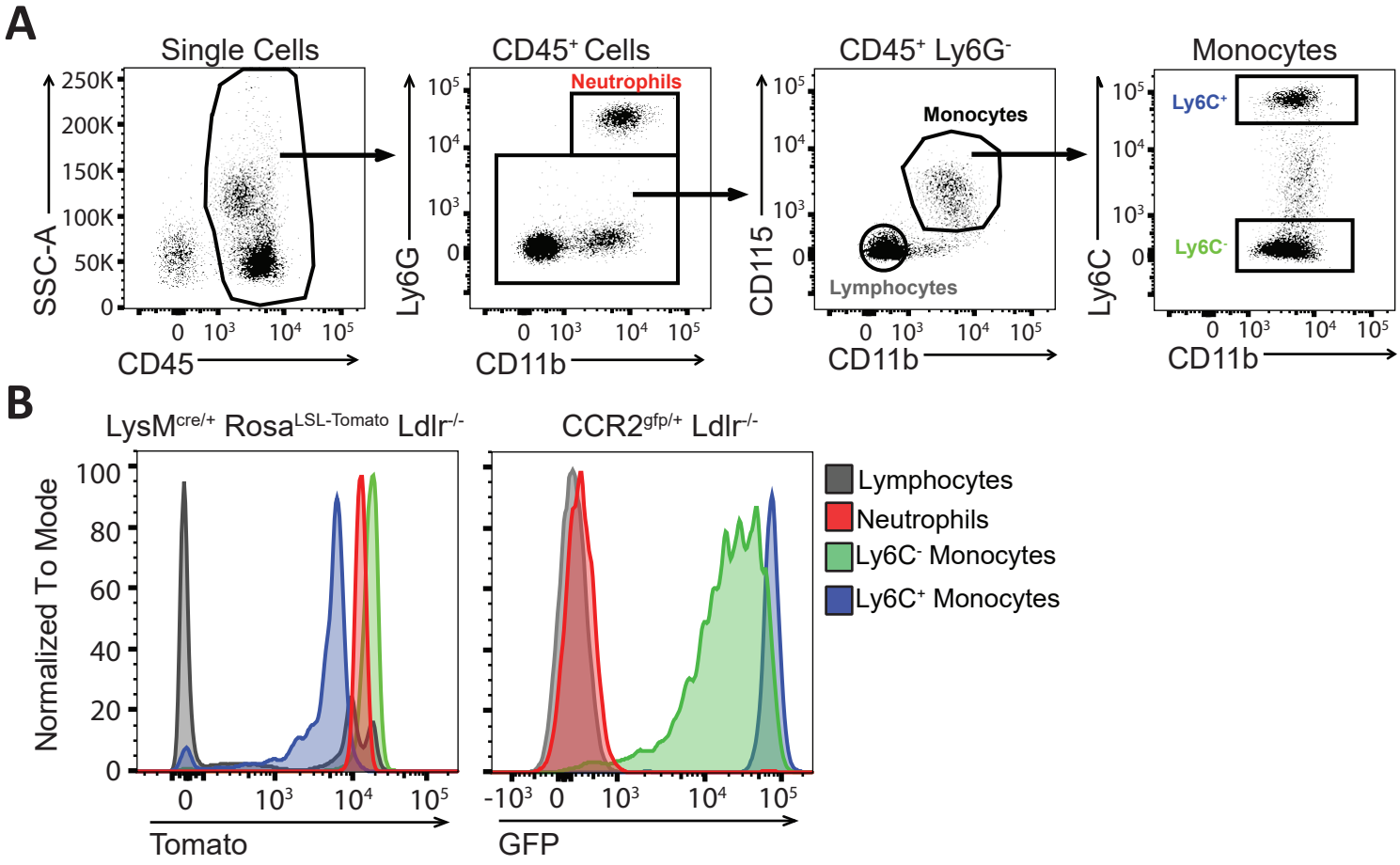
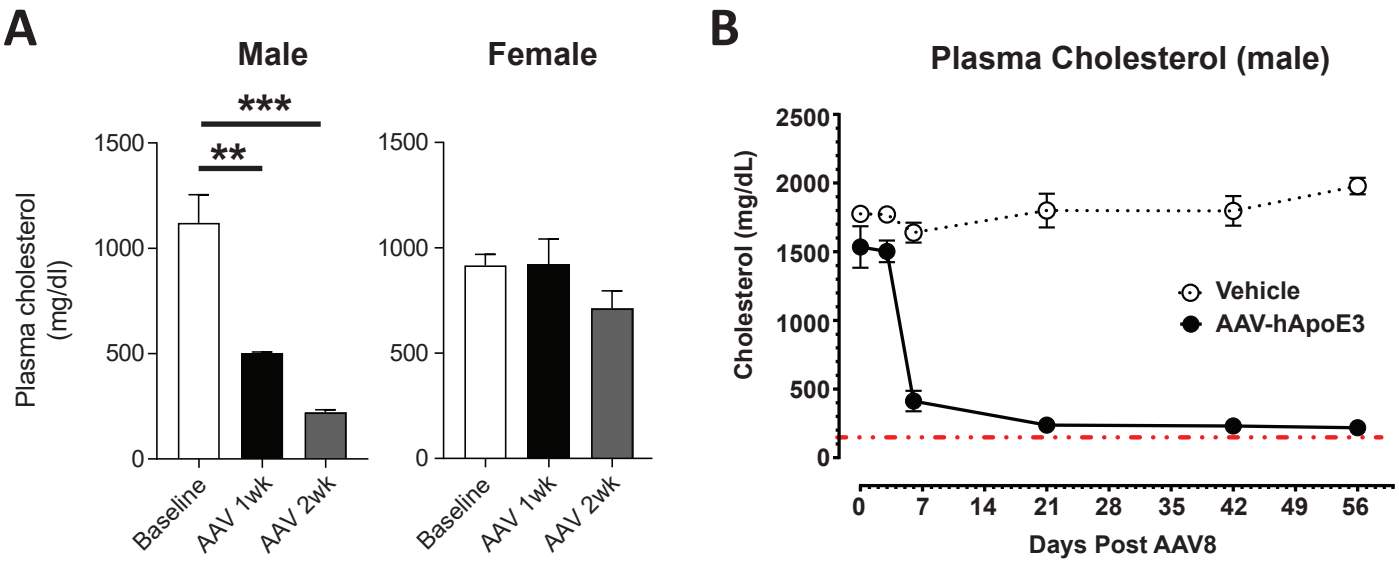
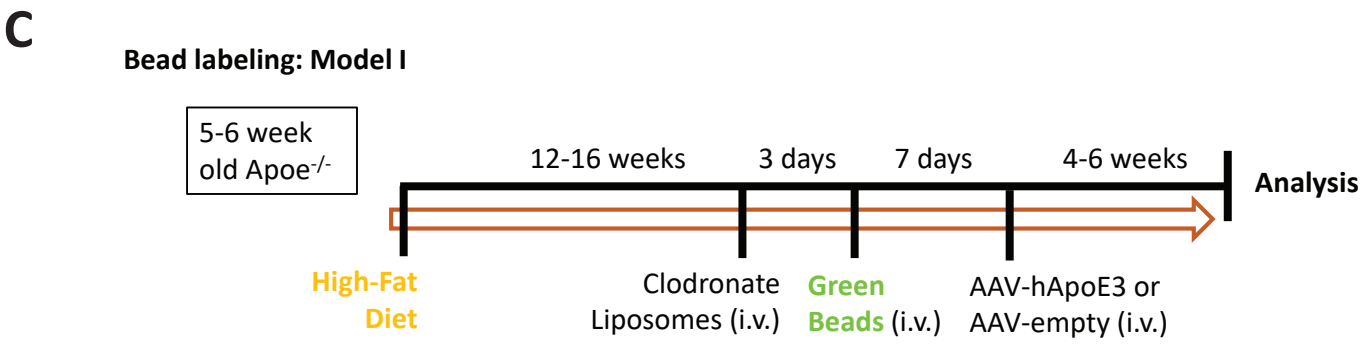
Supplemental Figure I



Supplemental Figure I. Mouse models for imaging myeloid cells in vivo. A) Gating strategy for identification of neutrophils, lymphocytes, nonclassical monocytes (Ly6C$^-$), and classical monocytes (Ly6C$^+$) by flow cytometry. B) Fluorescent reporter expression by lymphocytes, neutrophils, or monocyte subsets from the indicated LysM$^{cre/+}$ Rosa$^{LSL\text{-}Tomato}$ Ldlr$^{-/-}$ or CCR2$^{gfp/+}$ Ldlr$^{-/-}$ mouse strains. C) Side view from intravital imaging of HFD-fed CCR2$^{gfp/+}$ Ldlr$^{-/-}$ mice, with wall macrophages identified by blue balls, plaque macrophages identified by red balls, and monocytes identified by purple balls.

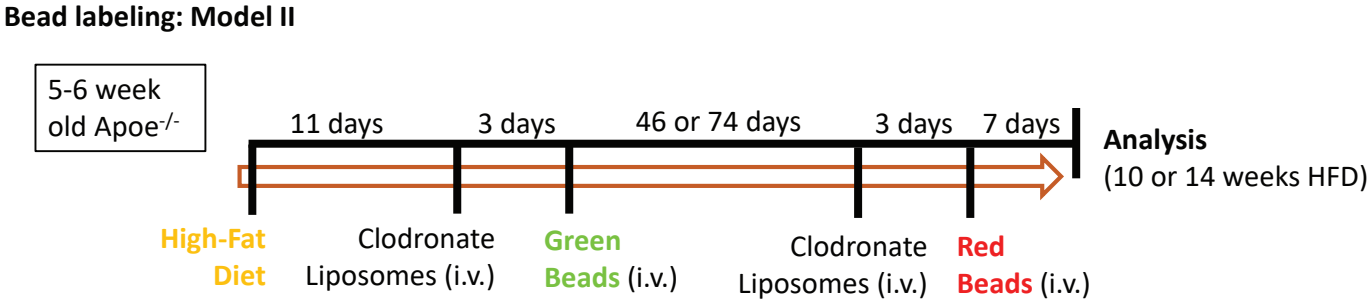
Supplemental Figure II





Supplemental Figure II. Expression of hApoe3 in Apoe$^{-/-}$ mice promotes cholesterol clearance in male mice. A) Male and female Apoe$^{-/-}$ mice were given HFD for 8 weeks, then injected with AAV8-hApoE3 and assayed for total plasma cholesterol levels at 1 and 2 weeks following injection, compared to prior to injection. B) Male animals were tracked for sustained cholesterol clearance in mice given AAV8-hApoE3 compared to control (empty vector) injected control Apoe$^{-/-}$ mice on HFD. C) Model I: Apoe$^{-/-}$ mice were placed on HFD for 12-16 weeks, then injected with clodronate loaded liposomes to deplete circulating monocytes. On day 3 classical monocytes were labeled with green beads by i.v. injection. One week later mice were injected with control (Empty) or AAV8-hApoE3 virus to promote cholesterol clearance. Mice were continued on HFD for 4 or 6 weeks, depending on the experiment, and assayed for bead localization within the plaque. A-B) Data are representative of 2 independent experiments and include 5-8 animals per group. Statistics were performed by two-way ANOVA with Tukey correction for multiple comparison test (p-value, *≤0.0332, **≤0.0021, ***≤0.0002, ****≤0.00001).

Supplemental Figure III



Supplemental Figure III. Bead labeling approaches for analysis of macrophage dynamics within atherosclerotic plaque. Apoe$^{-/-}$ mice were give HFD for 11 days, then injected with clodronate liposomes to deplete circulating monocytes. Three days later, green fluorescent beads were injected to track monocytes. Animals were continued on HFD for 46 or 74 days, then monocyte labeling was repeated with red beads. Animals continued on HFD for 7 additional days, then were sacrificed for analysis.