

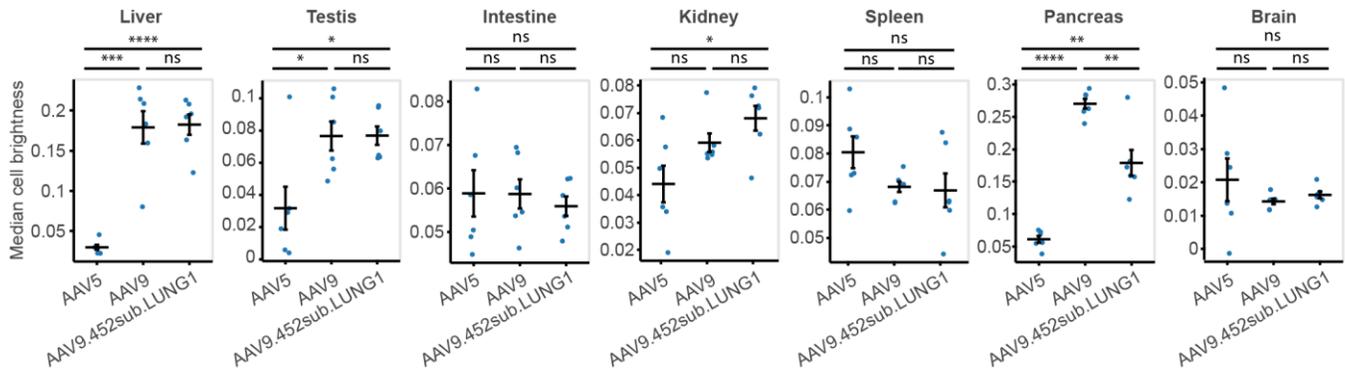
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Supplemental information

**Targeting the lung epithelium after intravenous
delivery by directed evolution of underexplored
sites on the AAV capsid**

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SUPPLEMENTAL INFORMATION



Supplemental Figure 1. Comparison of median cell brightness in transgene expressing cells across tissues after delivery with AAV5, AAV9, or AAV9.452sub.LUNG1, with tissues in the same order as Figure 4. There was no statistically significant difference in median cell brightness between AAV9 and AAV9.452sub.LUNG1 in all tissues (Brain: $P = 0.2$; Liver: $P = 0.9$; Kidney: $P = 0.2$; Intestine: $P = 0.5$; Spleen: $P = 0.9$; Testis: $P = 1$) except pancreas, where AAV9 was brighter per cell ($P = 0.007$). AAV9.452sub.LUNG1 expressed transgene in more cells than AAV5 in all tissues (Brain: $P = 0.01$; Liver: $P = 0.00002$; Kidney: $P = 0.001$; Pancreas: $P = 0.002$; Spleen: $P = 0.03$; Testis: $P = 0.0002$) except the intestine, where it expressed transgene in fewer cells ($P = 0.03$). There was no statistically significant difference in median cell brightness between AAV5 and AAV9.452sub.LUNG1 in brain, intestine, and spleen (Brain: $P = 0.5$; Intestine: $P = 0.7$; Spleen: $P = 0.2$). In the liver, kidney, pancreas, and testis, the median cell brightness after delivery with AAV9.452sub.LUNG1 was increased over AAV5 (Liver: $P = 0.00006$; Kidney: $P = 0.02$; Pancreas: $P = 0.002$; Testis: $P = 0.02$). Comparing natural serotypes AAV5 and AAV9, GFP expression after delivery with AAV9 was brighter than AAV5 in liver, pancreas, and testis (Liver: $P = 0.00095$; Pancreas: $P < 0.00001$; Testis: $P = 0.01$) but not significantly different in brain, kidney, intestine, or spleen (Brain: $P = 0.4$; Kidney: $P = 0.1$; Intestine: $P = 1$; Spleen: $P = 0.1$). $n = 6$ mice per group, mean \pm s.e.m. Statistical significance was determined using two-sided Welch's t-tests.