

FIG. 1A

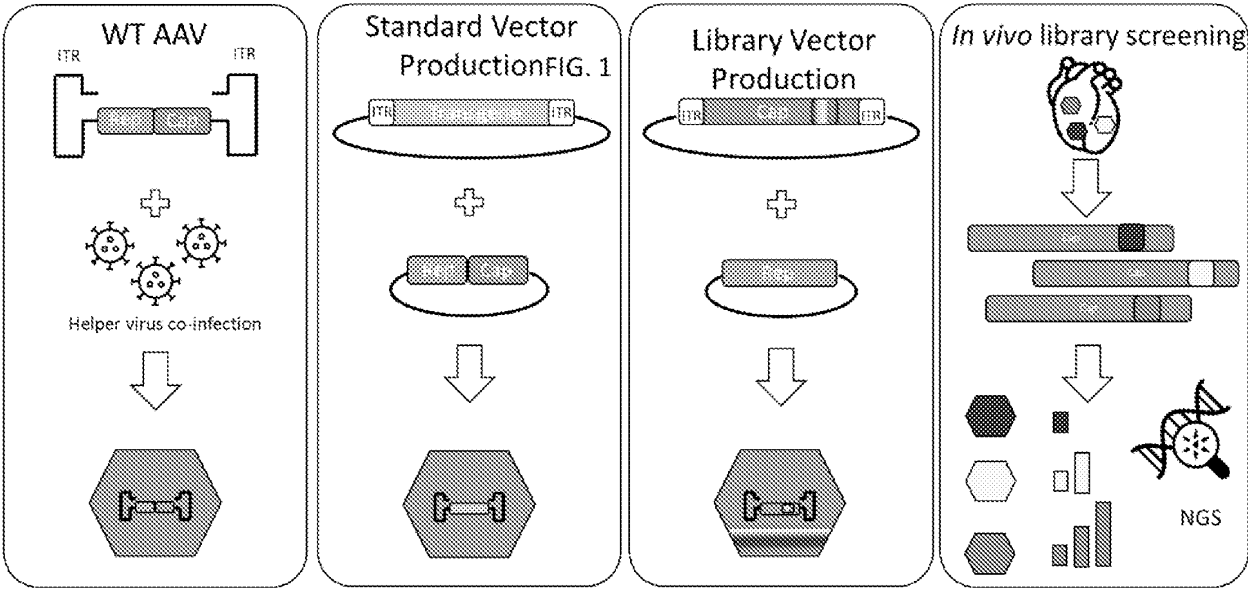


FIG. 1B

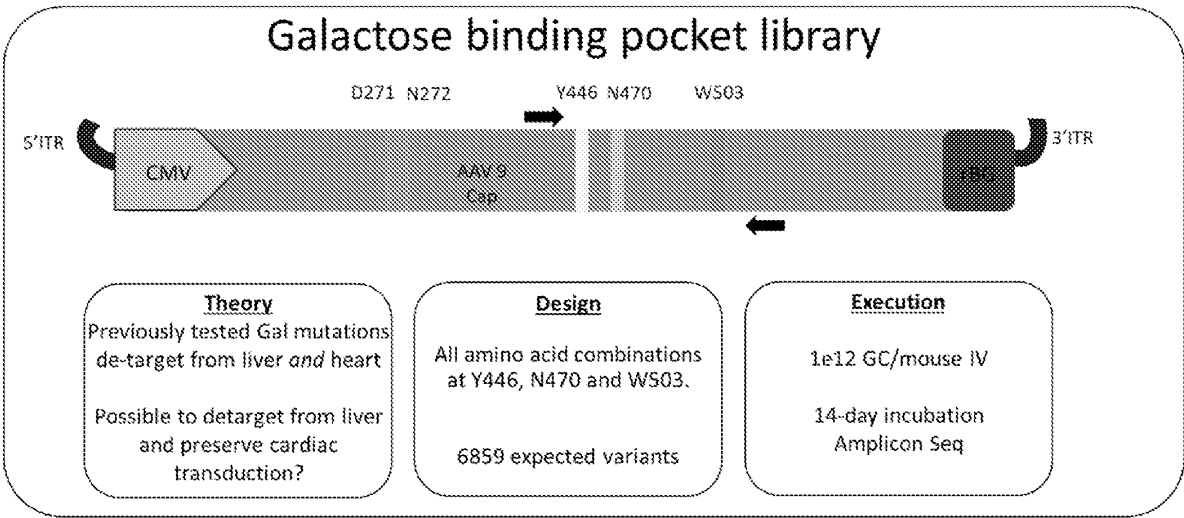
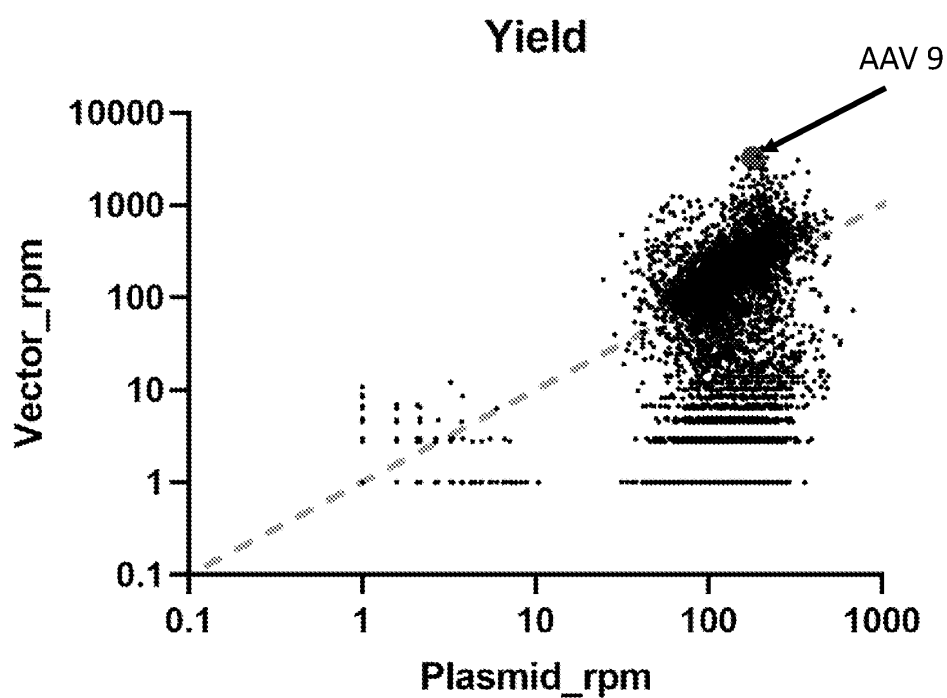


FIG. 2



****rpm = reads per million****

Deriving performance metrics

-Yield Score-

$$Yield\ Score = \frac{Vector_{rpm}}{Plasmid_{rpm}}$$

Allows ranking based on vector
abundance normalized to plasmid
abundance

FIG. 3

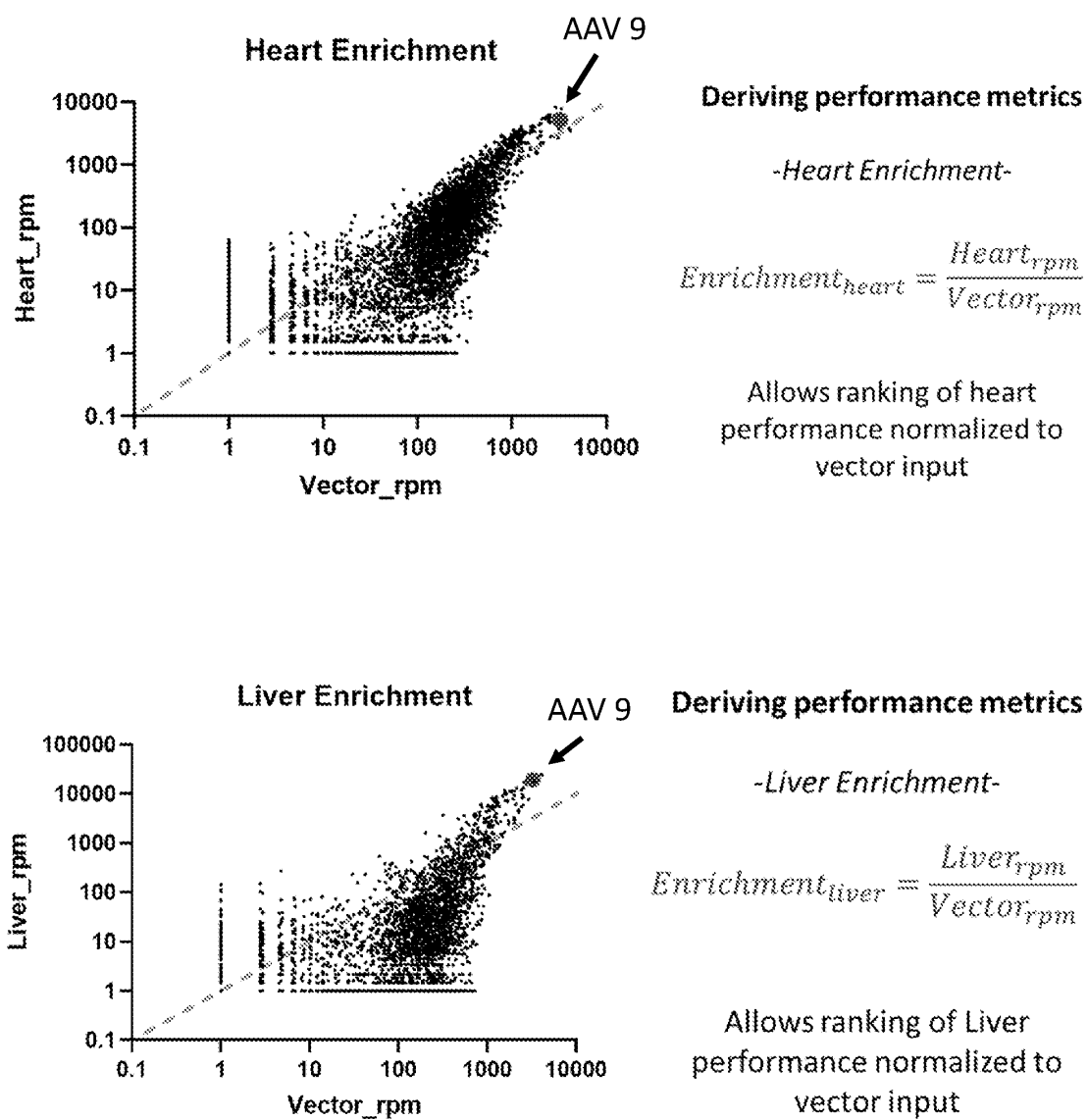


FIG. 4

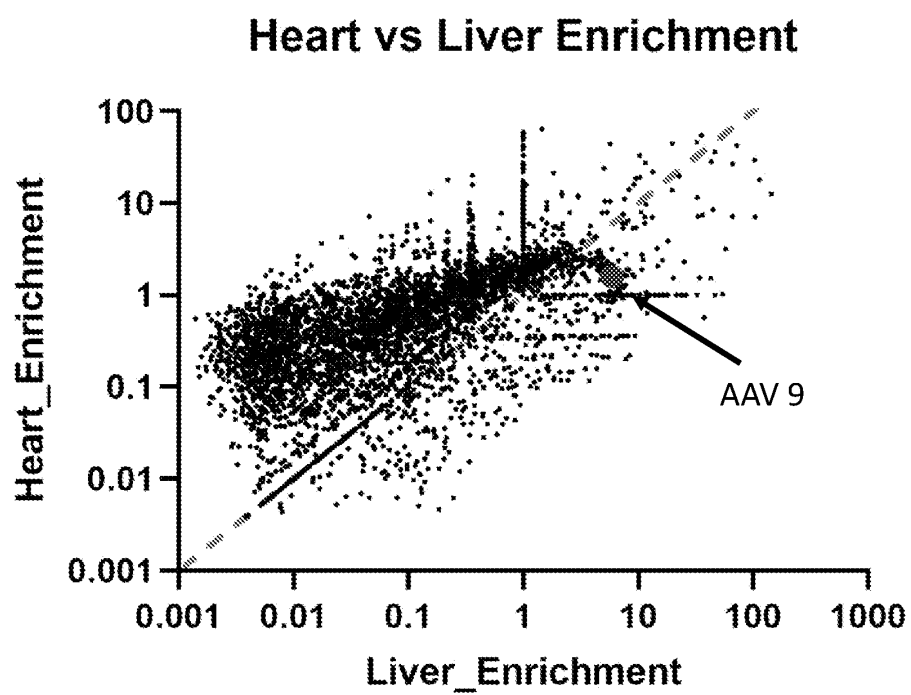
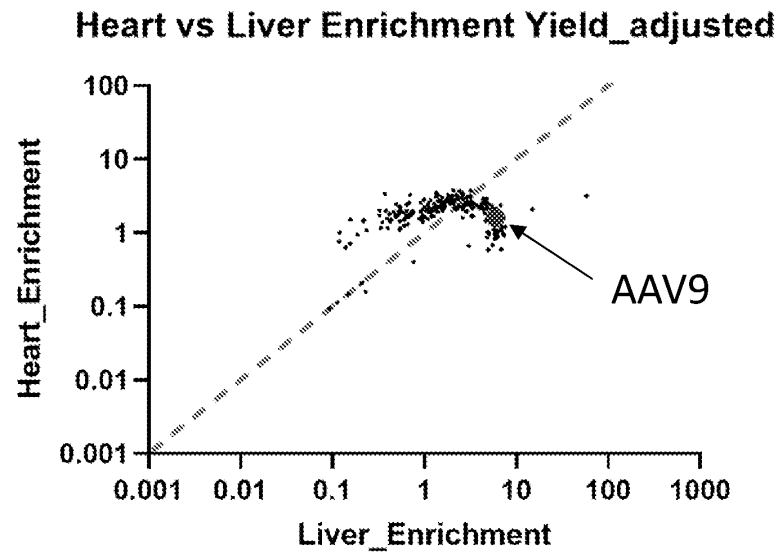


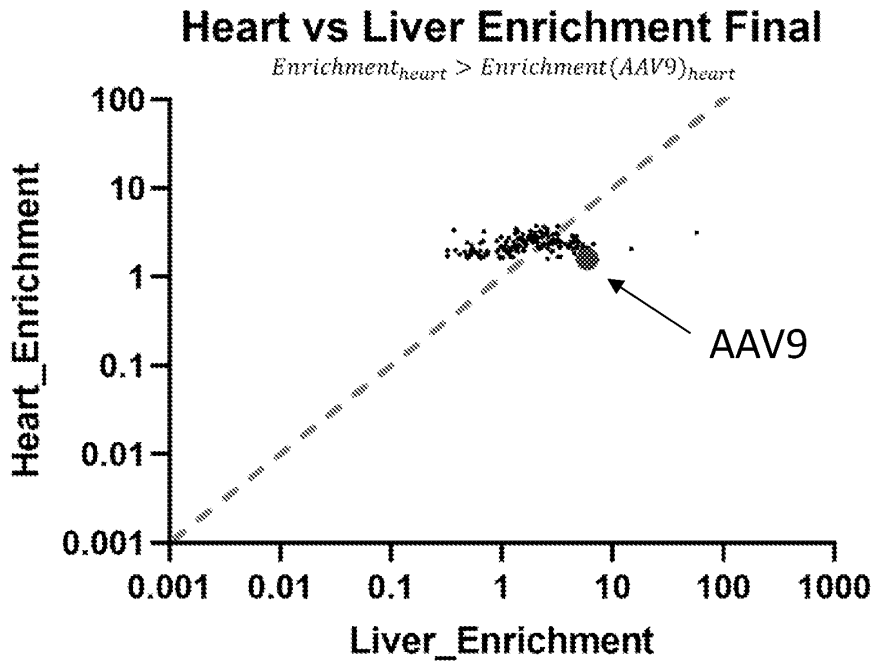
FIG. 5



$$Yield\ Score_{AAV9norm} > 0.25$$

Initial Variants	Variants Trimmed	Variants Remaining
7192	6970	222

FIG. 6



Initial Variants	Variants Trimmed	Variants Remaining
222	59	163

Summary of 163 hits

Preserved cardiac transduction

1-2.3x enrichment vs AAV 9

Median = 1.49x

Liver detargeted

.05-9.7x enrichment vs AAV 9

Median = .32x

FIG. 7A

Motif Identification – Position 1 – Y446

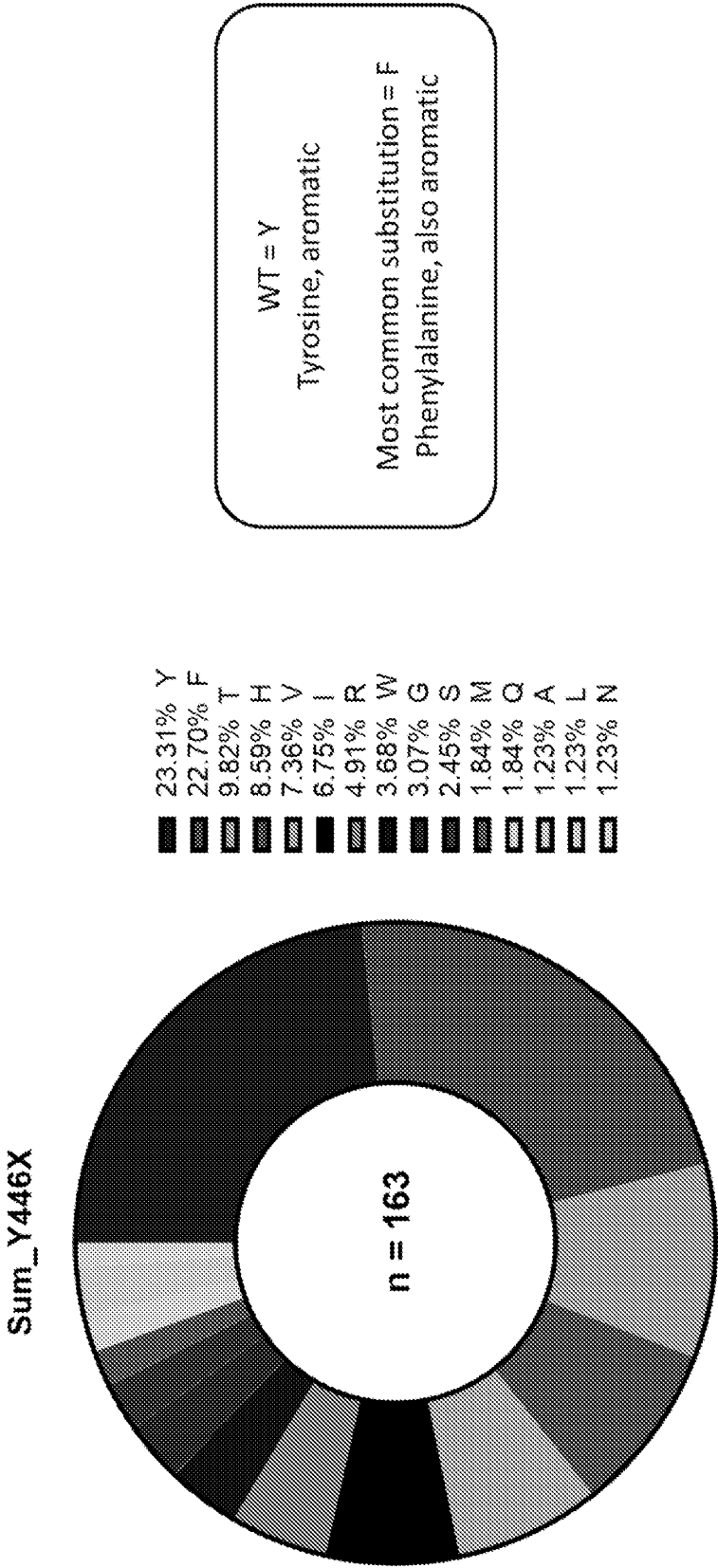


FIG. 7B

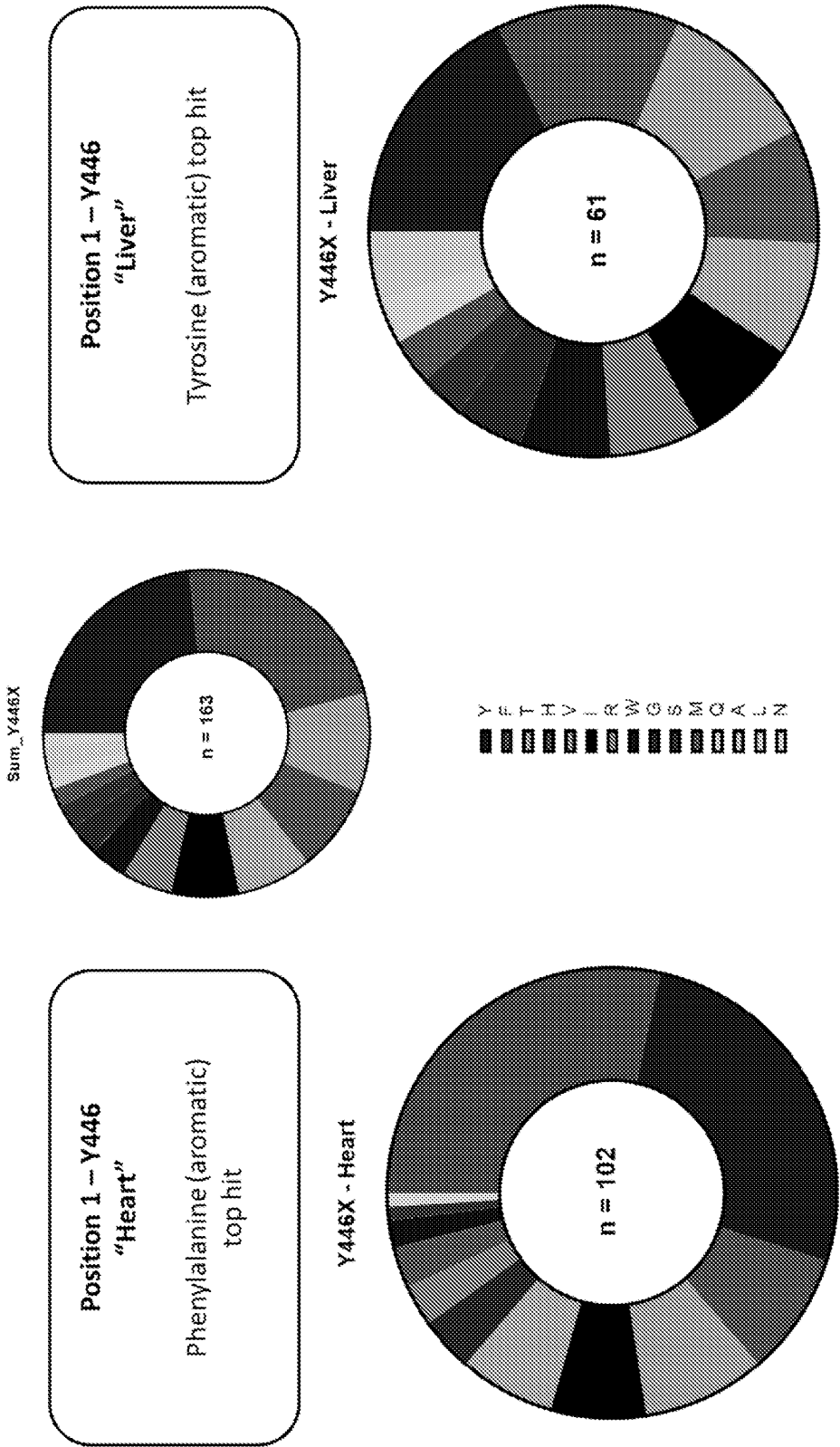


FIG. 7C

Motif Identification – Position 2 – N470

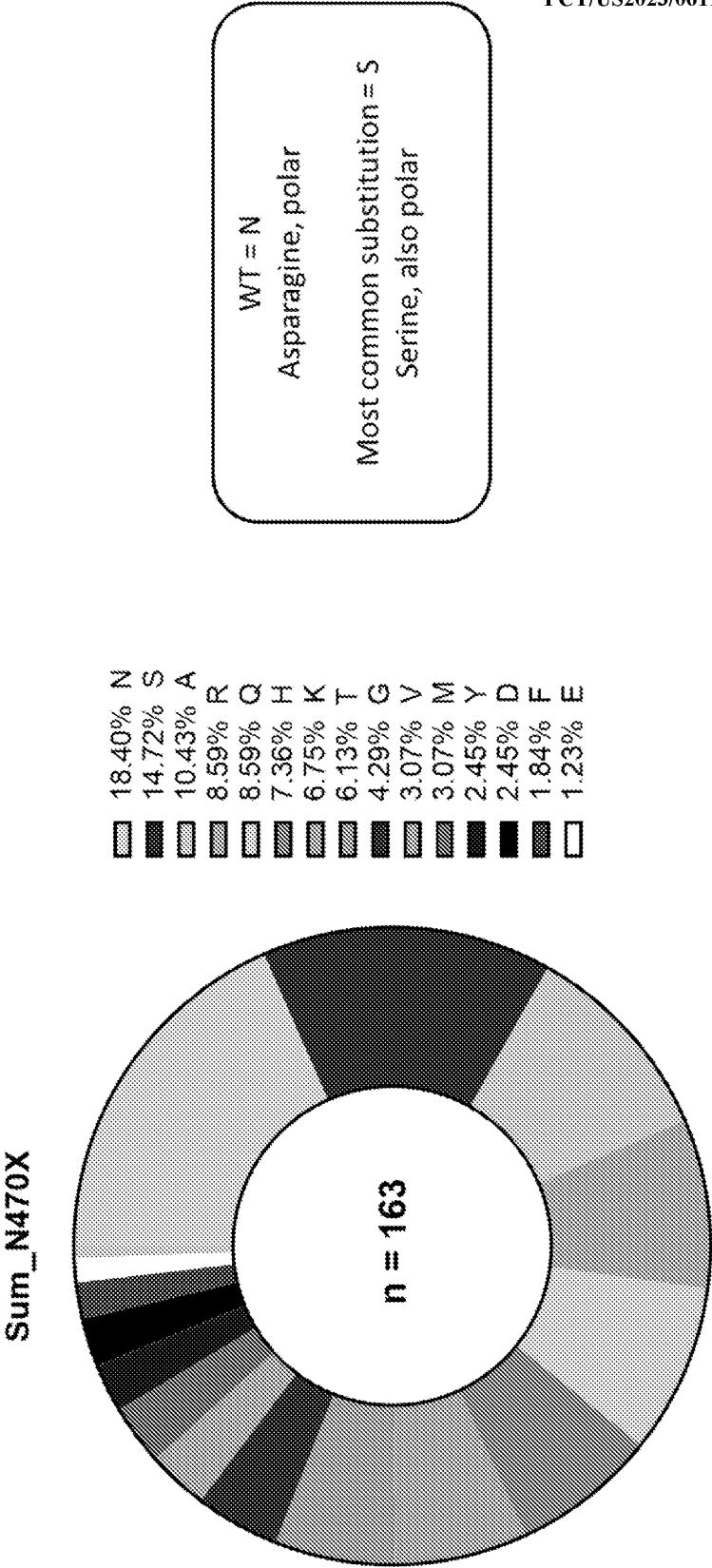


FIG. 7D

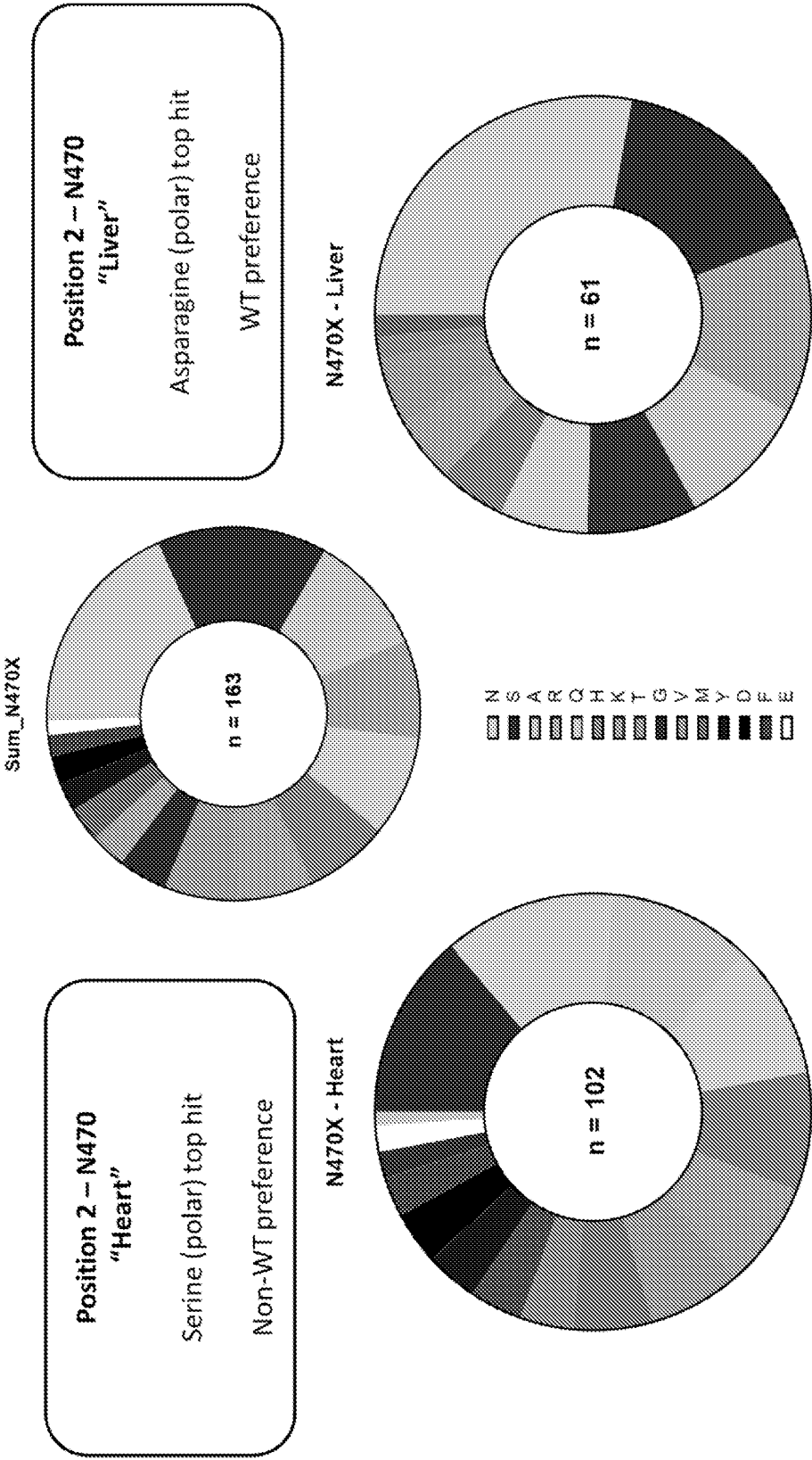


FIG. 7E

Motif Identification – Position 3 – W503

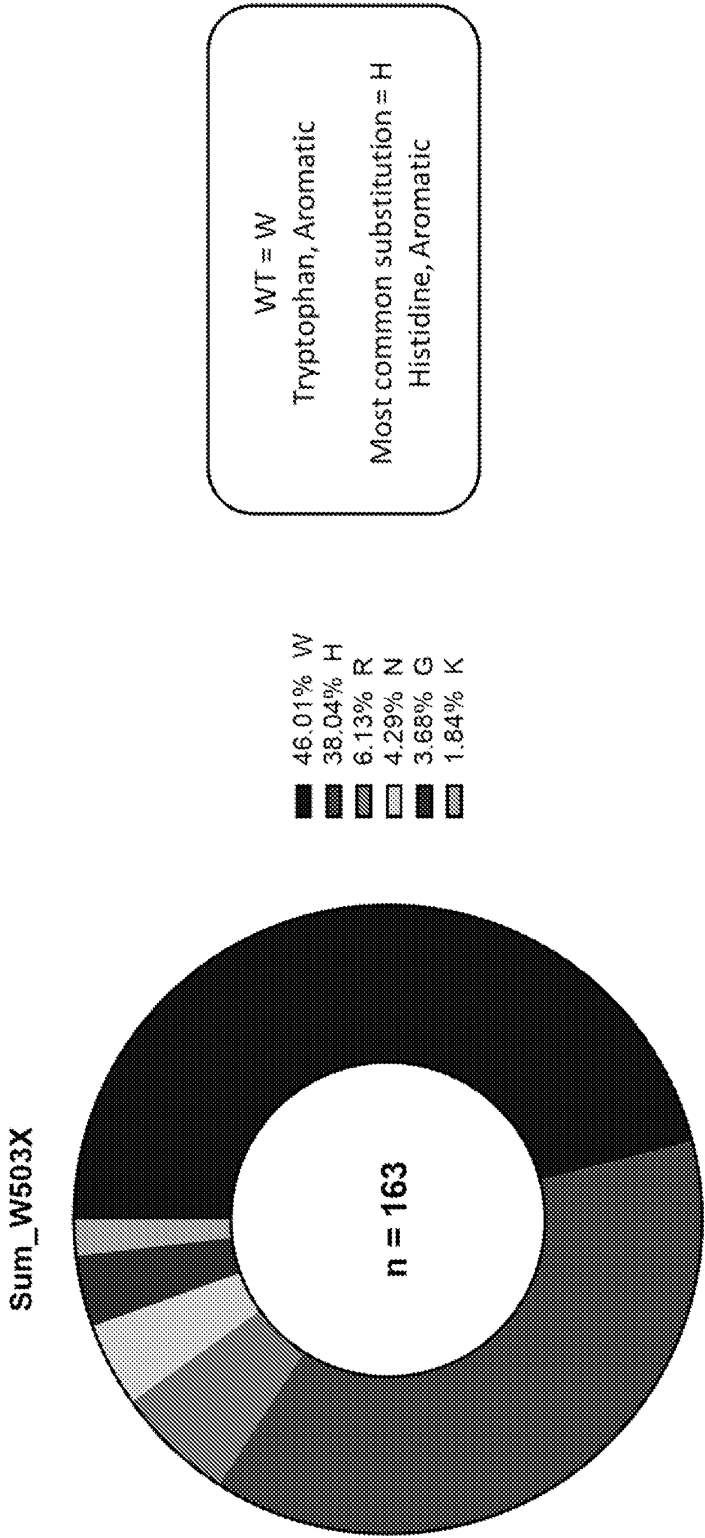


FIG. 7F



FIG. 8

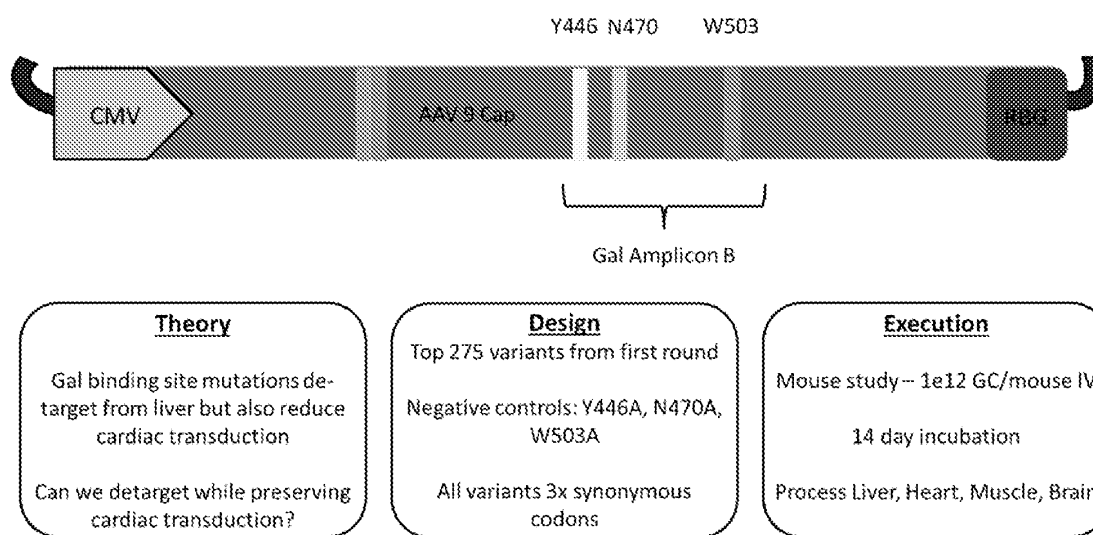


FIG. 9A

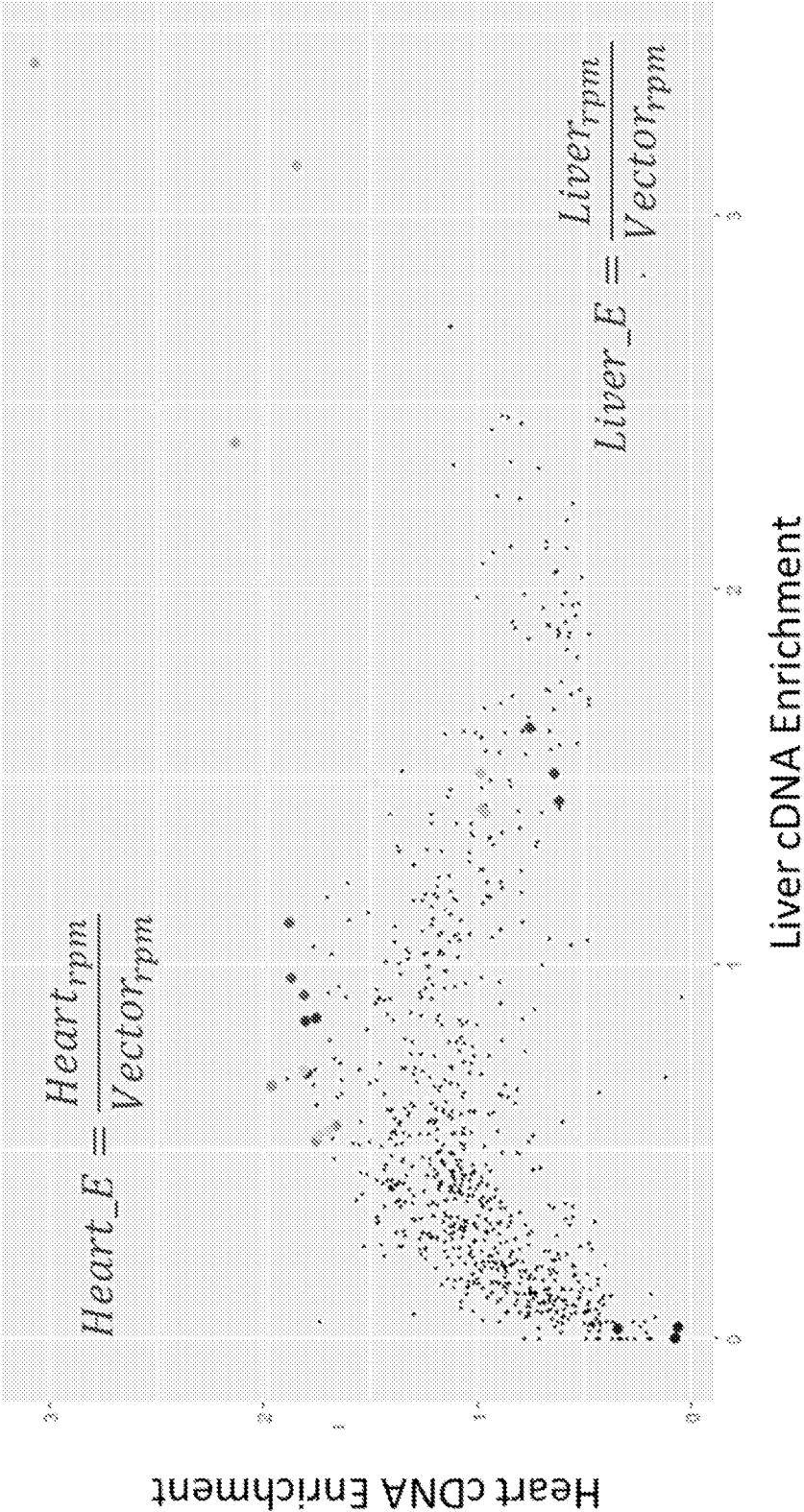


FIG. 9B

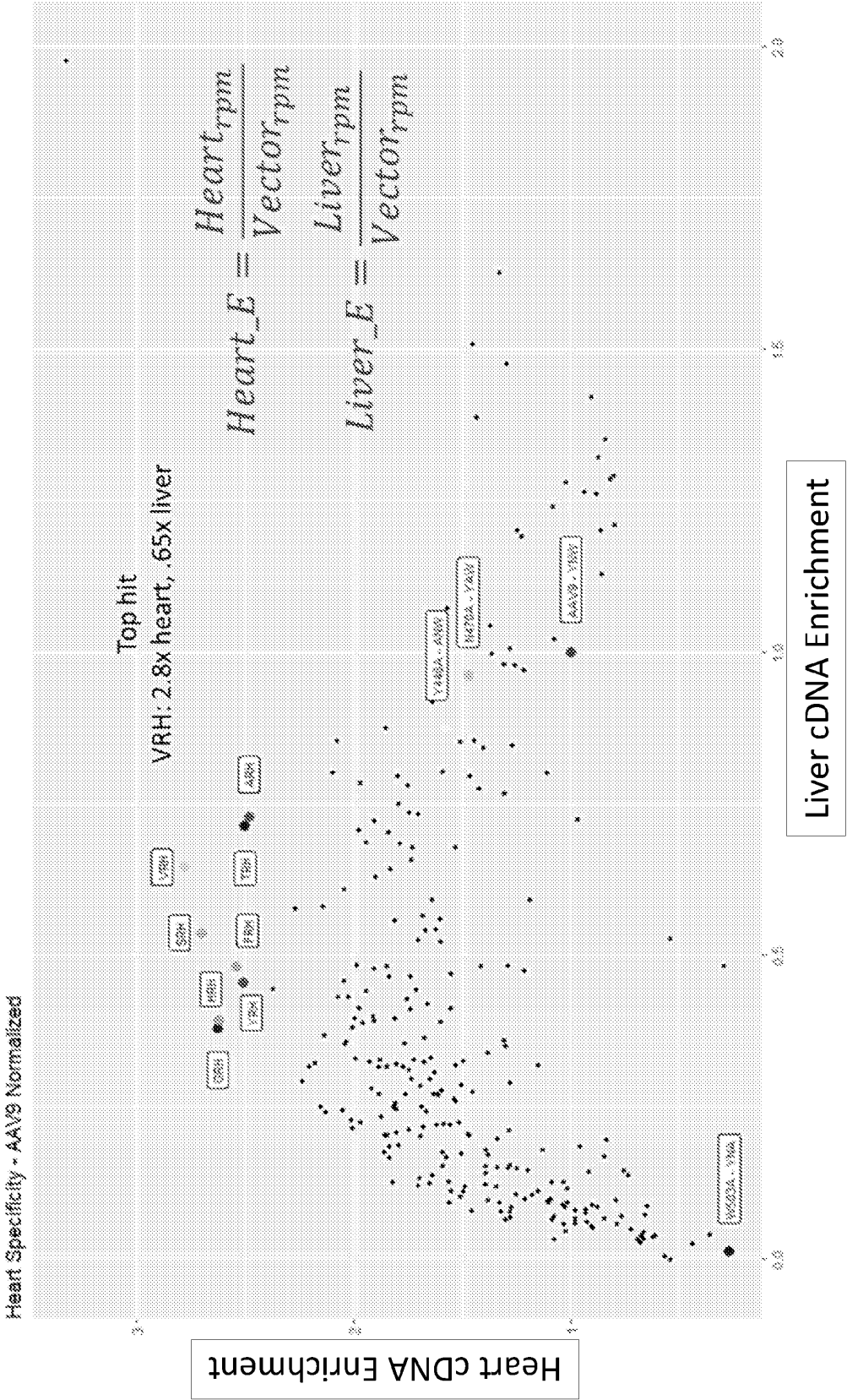


FIG. 11

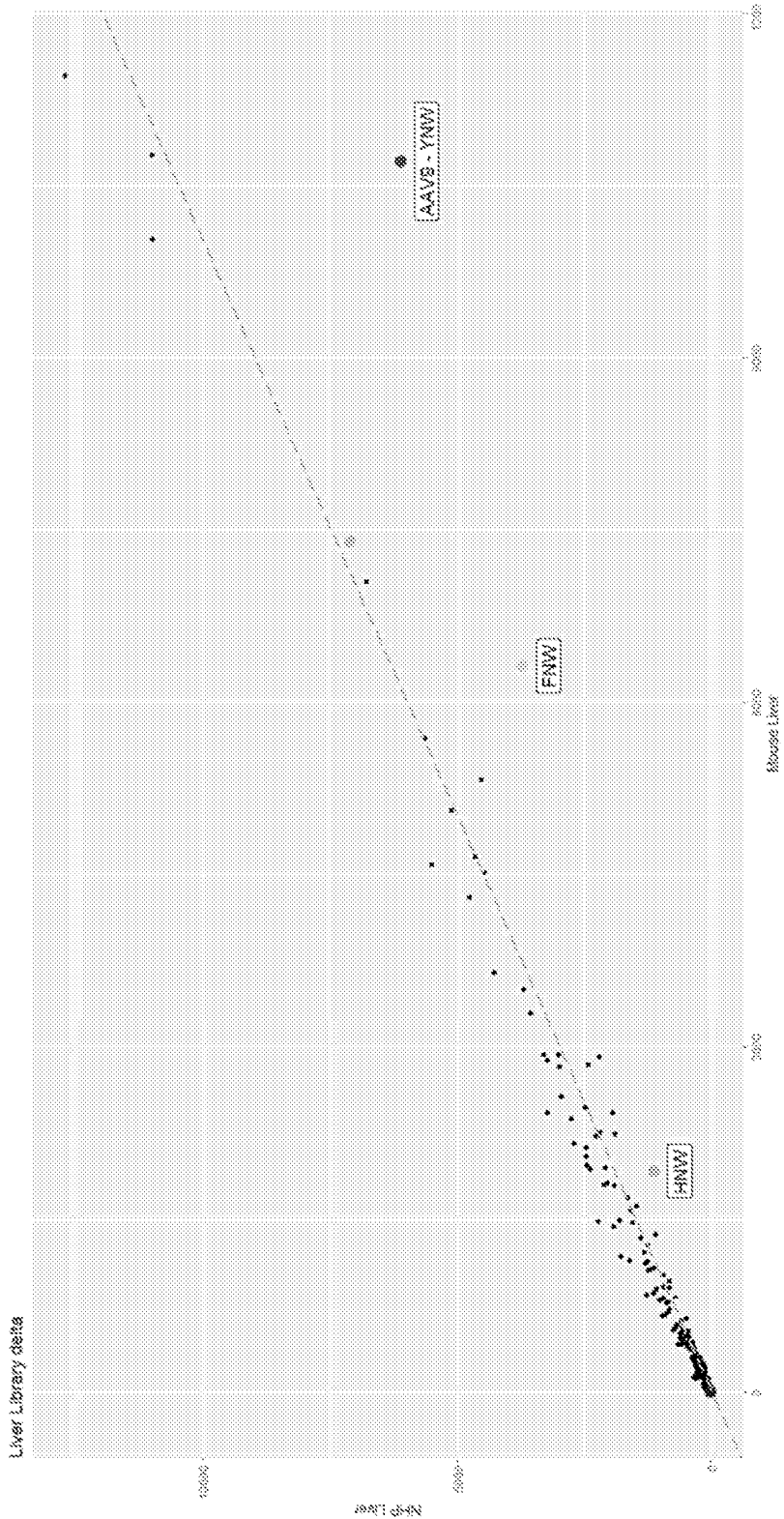


FIG. 12A

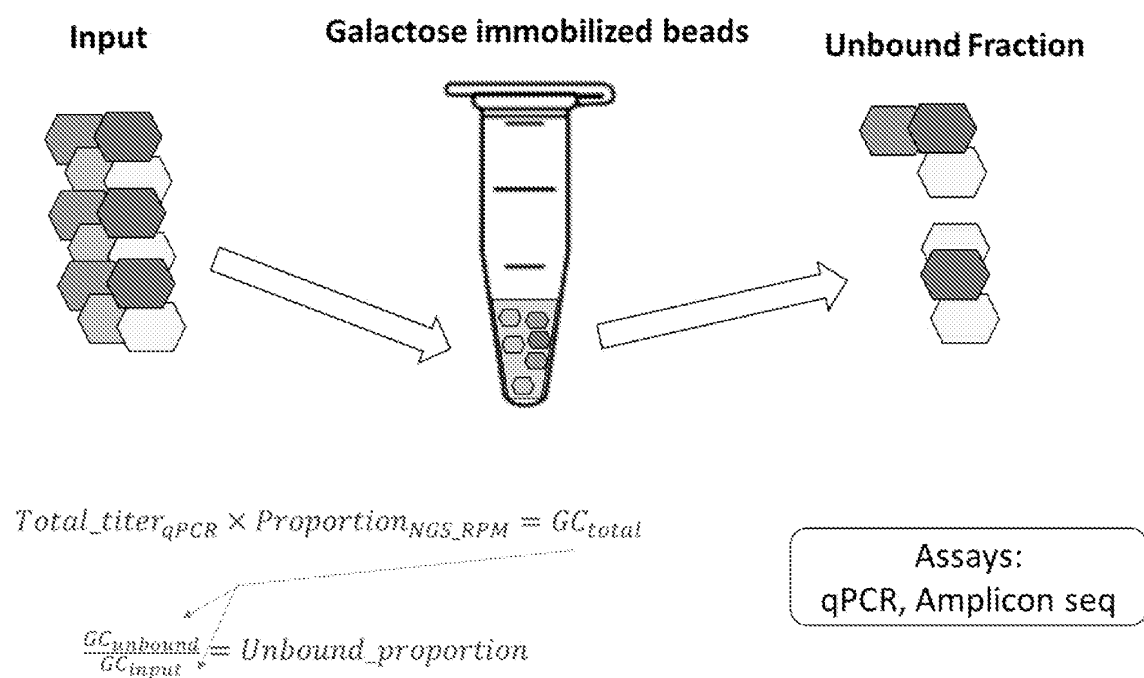


FIG. 12B

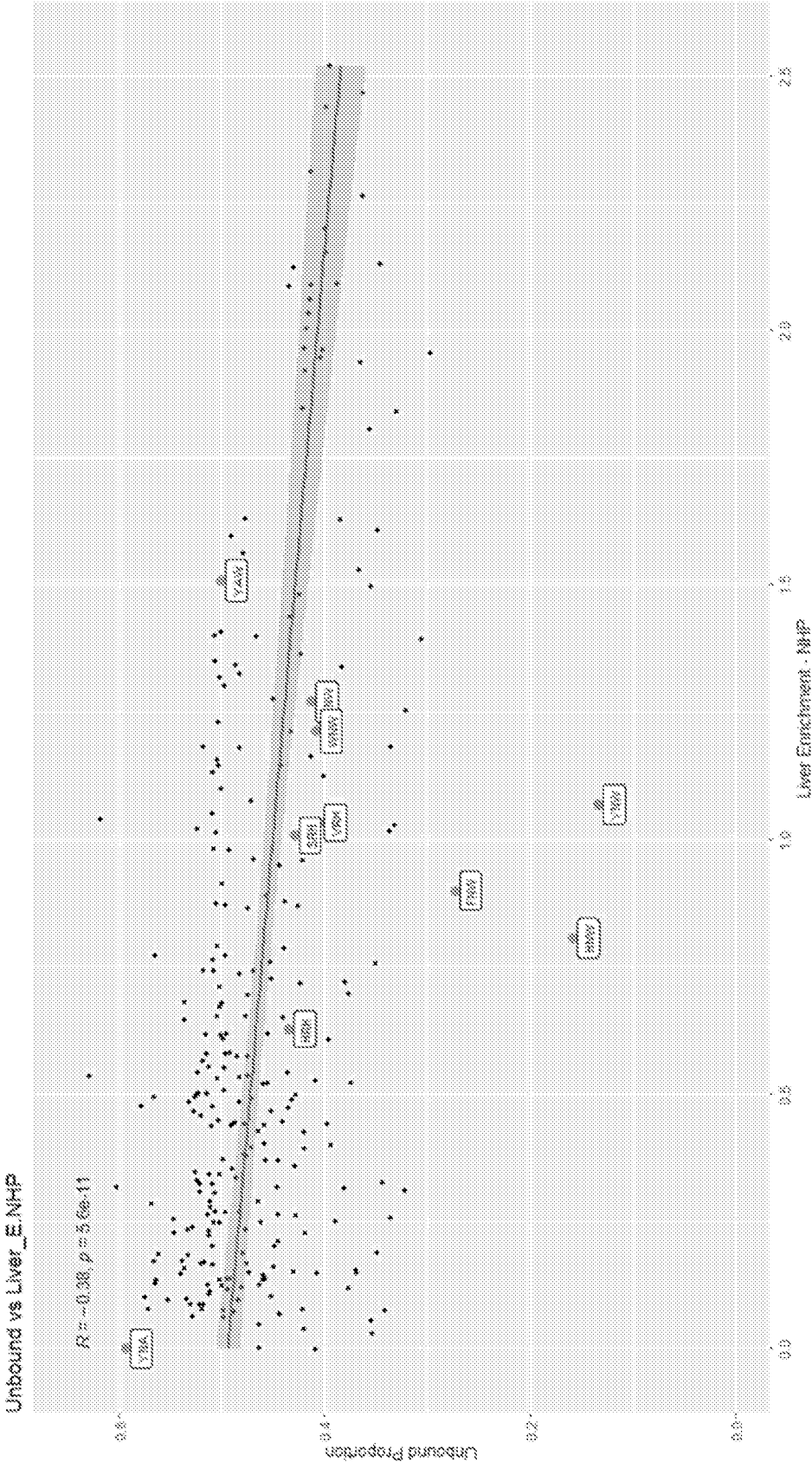


FIG. 13A

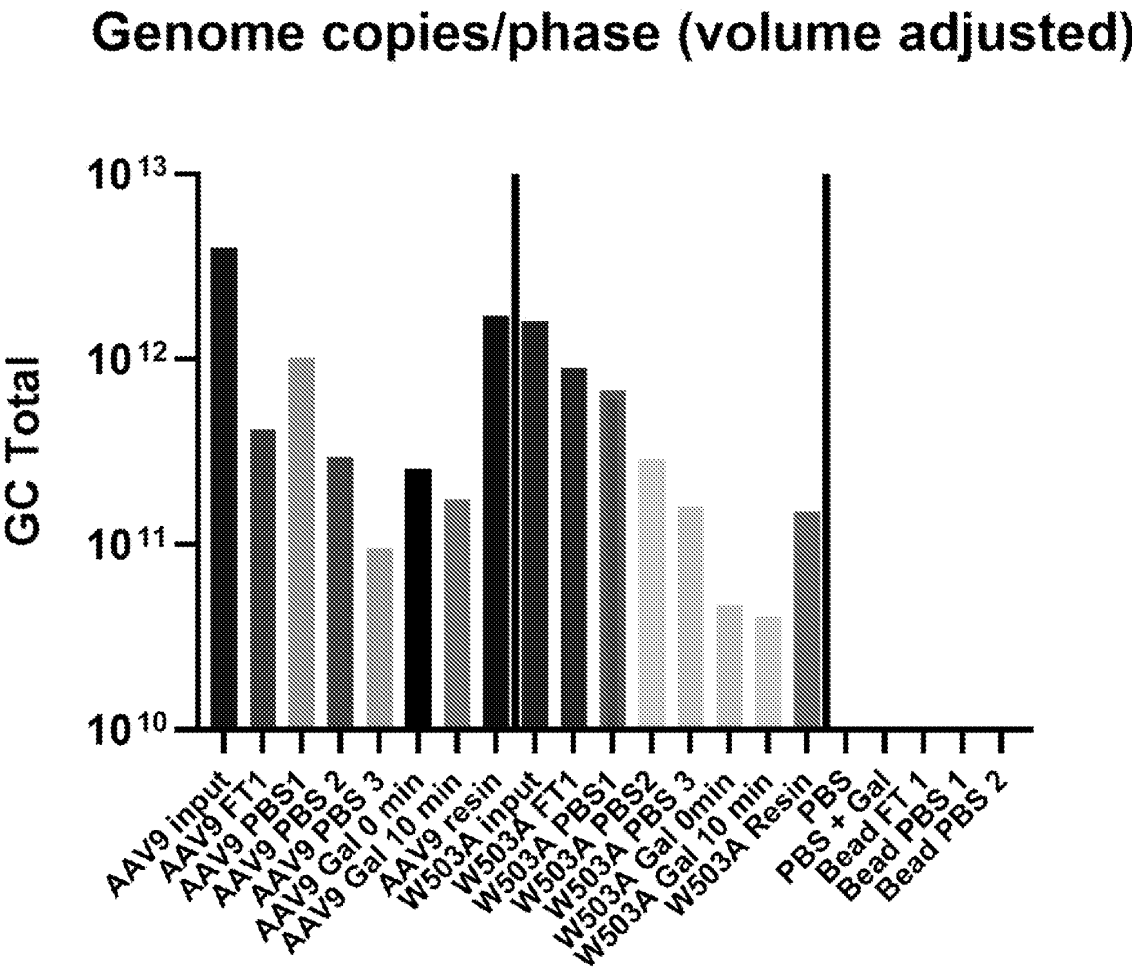


FIG. 13B

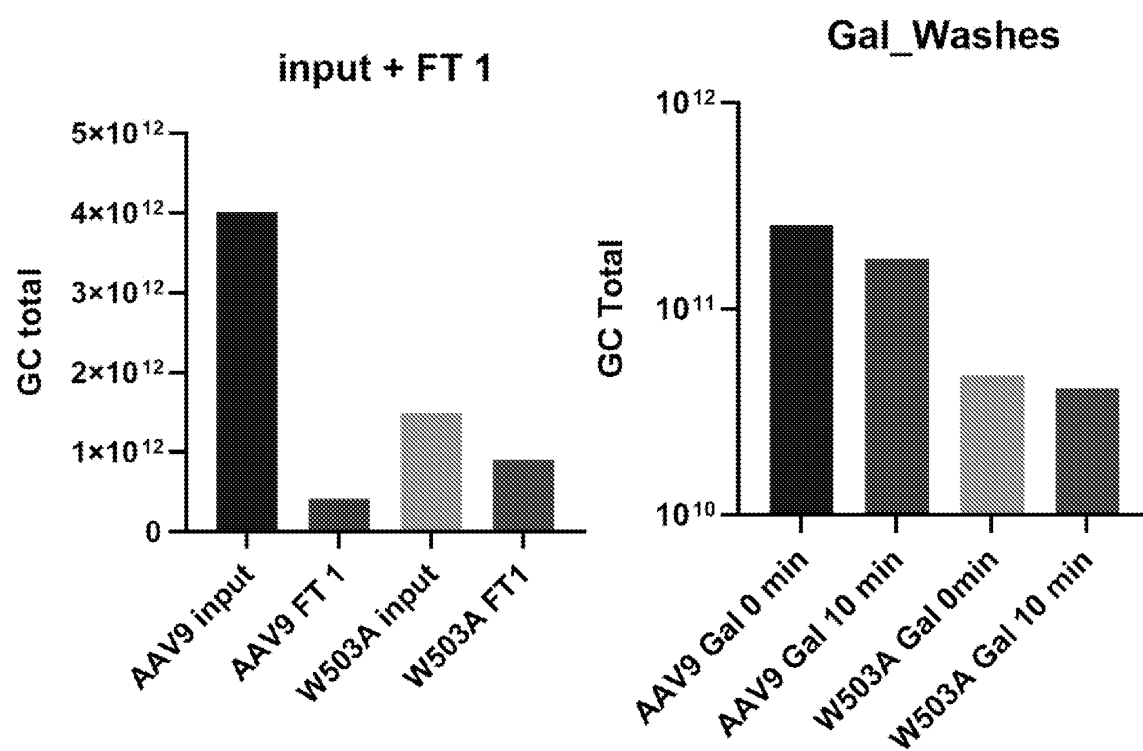
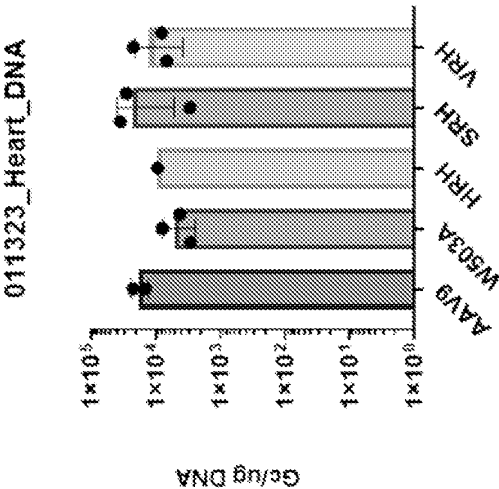
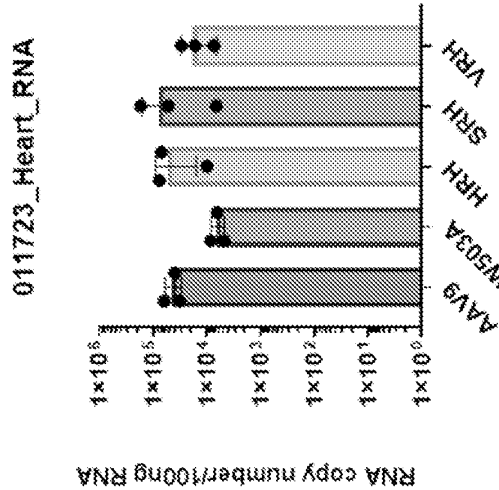


FIG. 14A



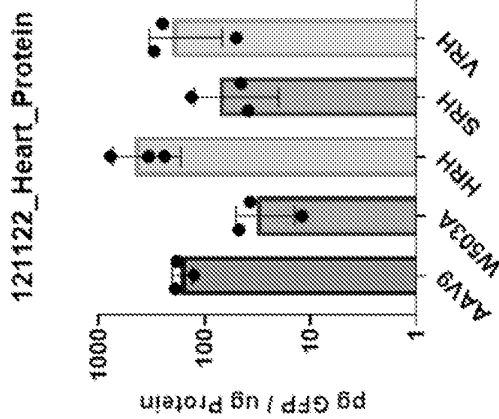
	AAV9	W503A	HRH	SRH	VRH
Mouse 1	0.00	0.16	0.00	0.16	0.37
Mouse 2	1.21	0.43	0.91	1.91	0.44
Mouse 3	0.79	0.23	0.00	1.54	1.20
Average	1.00	0.27	0.91	1.20	0.67

FIG. 14B



	AAV9	W503A	HRH	SRH	VRH
Mouse 1	0.89	0.11	1.72	0.15	0.16
Mouse 2	1.98	0.15	0.22	9.84	0.07
Mouse 3	0.74	0.19	1.59	1.19	0.37
Average	1.00	0.15	1.18	1.72	0.40

FIG. 14C



	AAV9	W503A	HRH	SRH	VRH
Mouse 1	0.76	0.28	5.85	0.27	0.30
Mouse 2	1.14	0.32	2.04	0.28	1.91
Mouse 3	1.10	0.07	1.44	0.30	1.90
Average	1.00	0.09	2.71	0.44	1.90

