

Figure 1A

Figure 1B

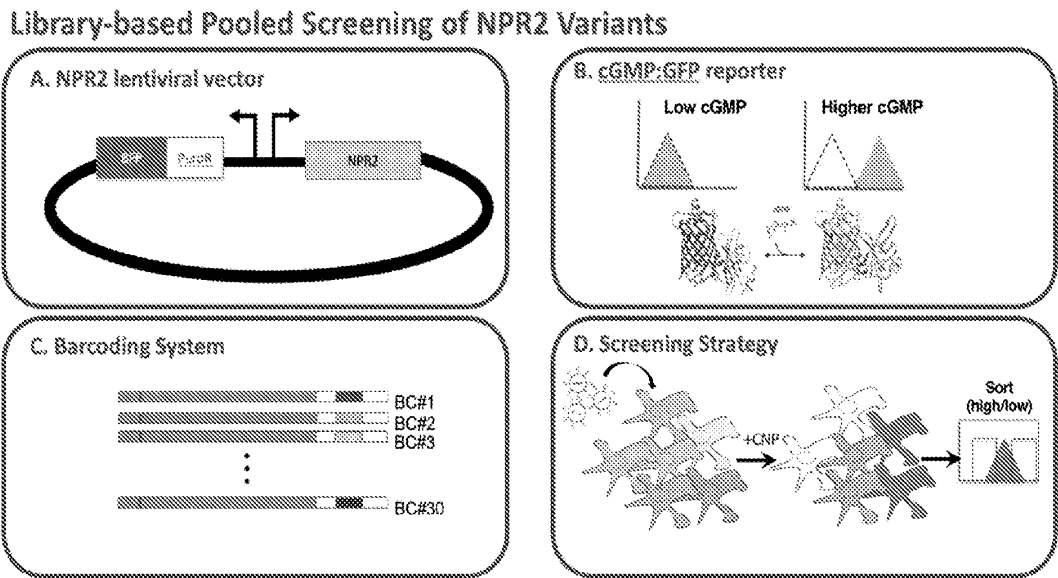


Figure 1C

Figure 1D

Figure 2. Library Generation

1. generate amplicon

2. ligate adaptors

3. sequence

4. data analysis

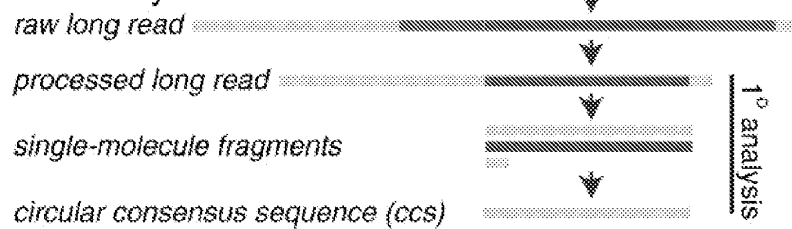


Figure 3A

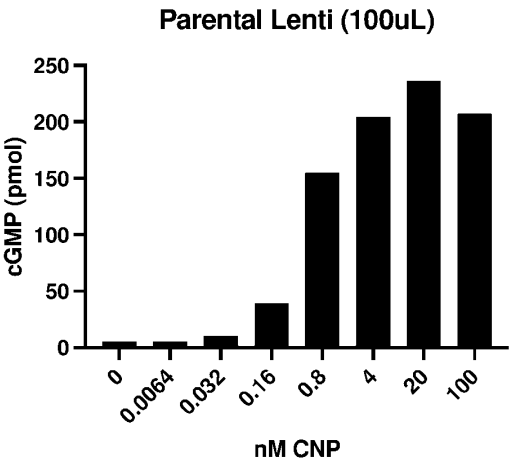
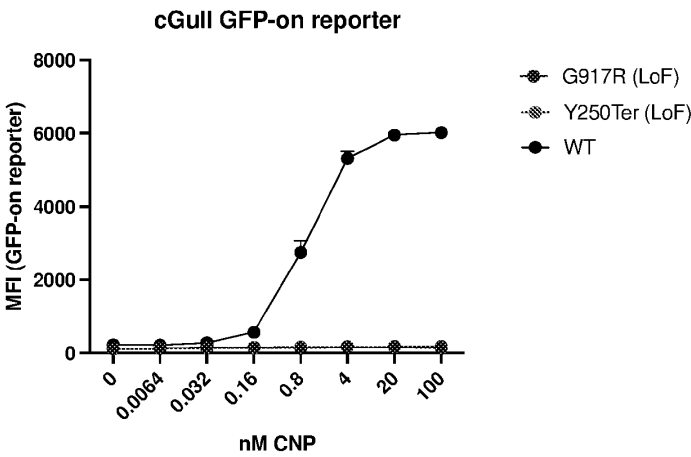


Figure 3B



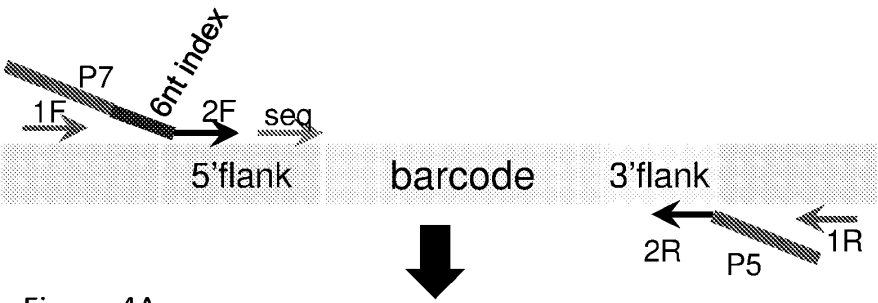


Figure 4A

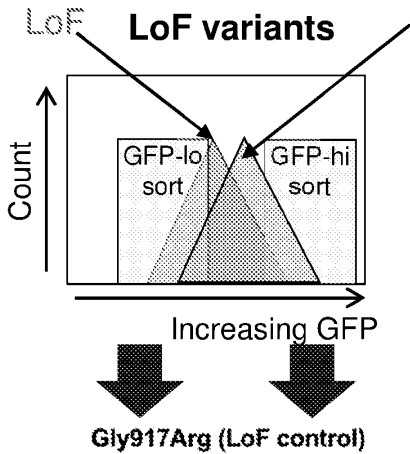


Figure 4B

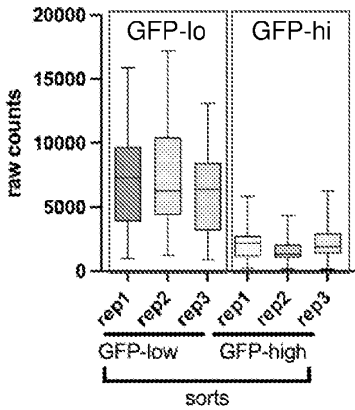


Figure 4C

Figure 5

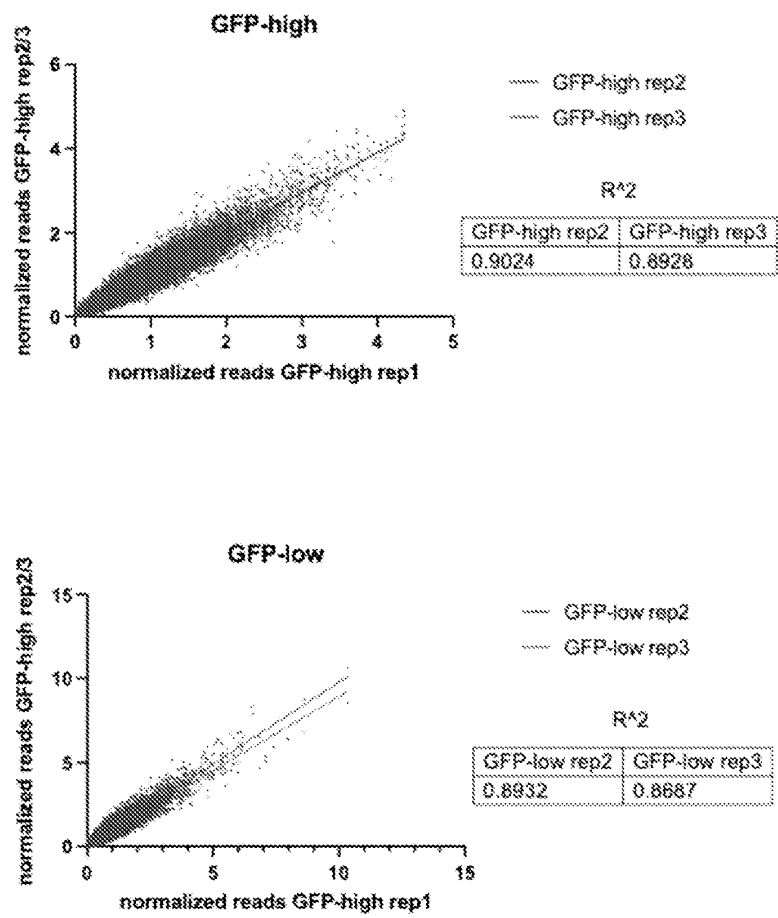


Figure 6A

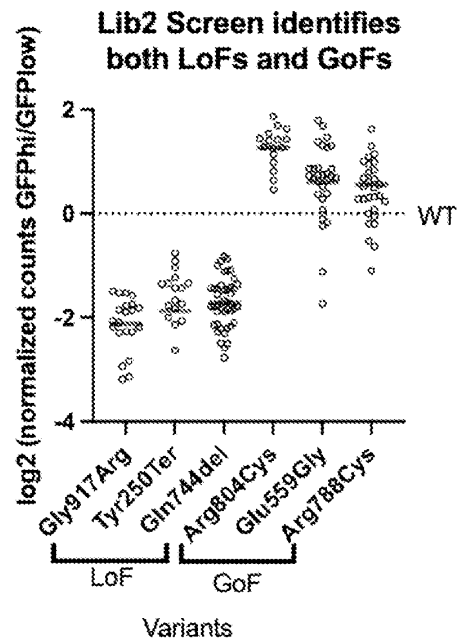


Figure 6B

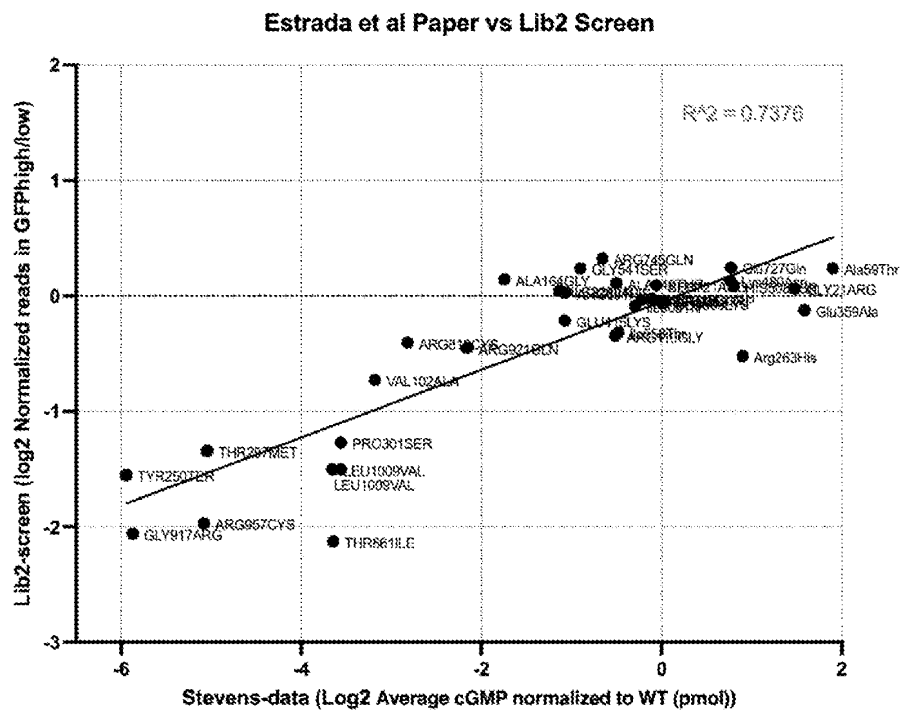


Figure 7A

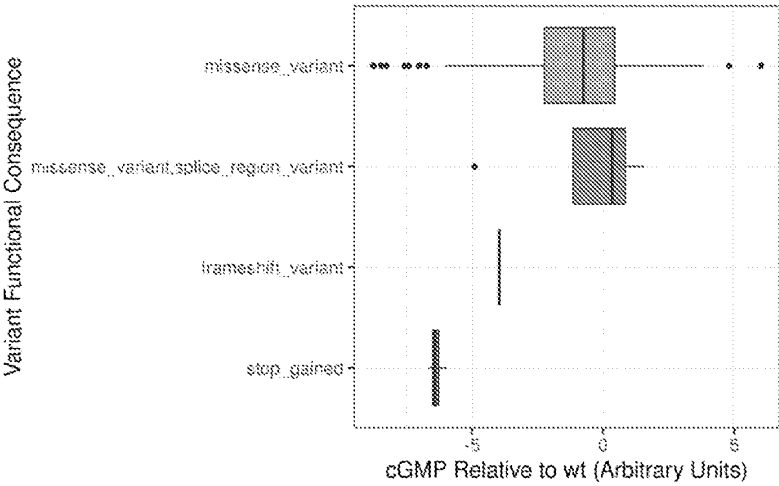


Figure 7B

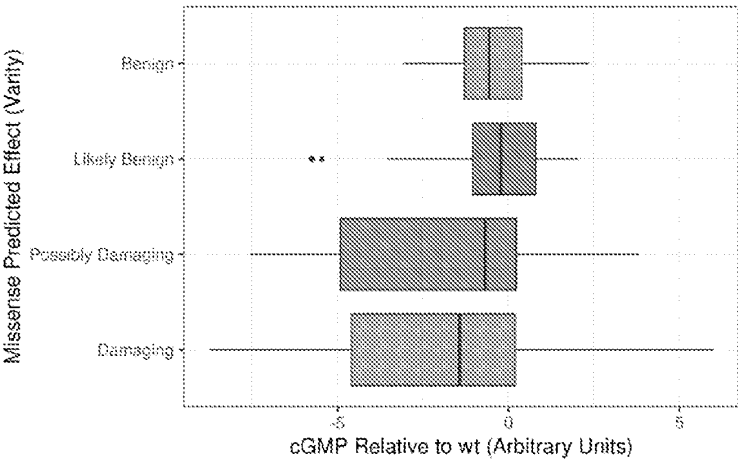


Figure 7C

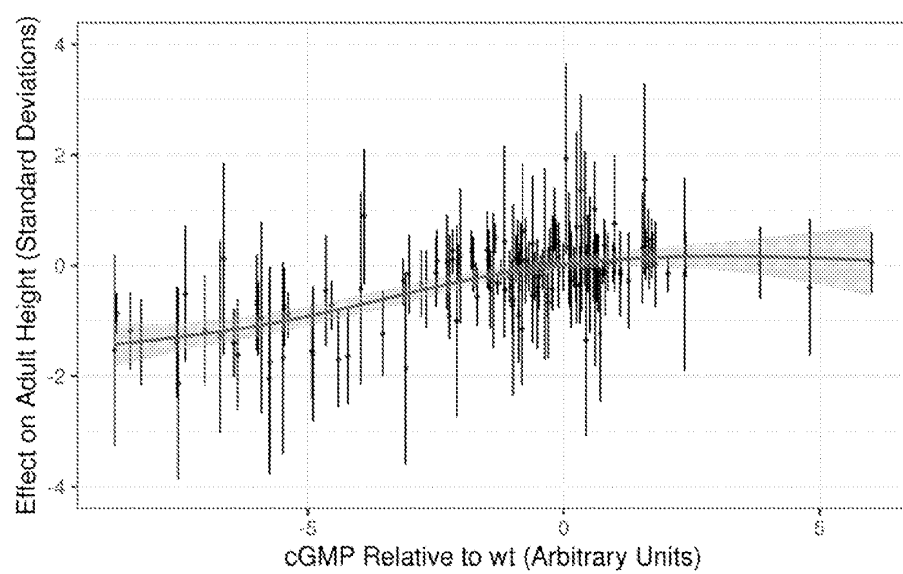


Figure 8A

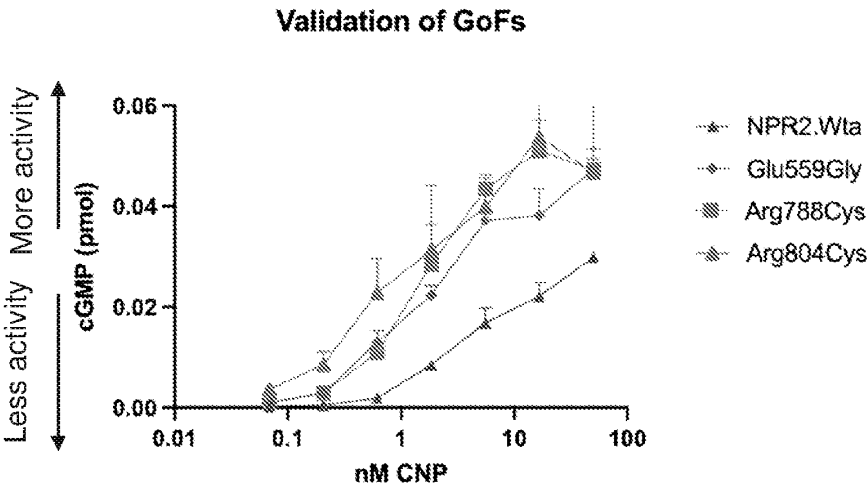


Figure 8B

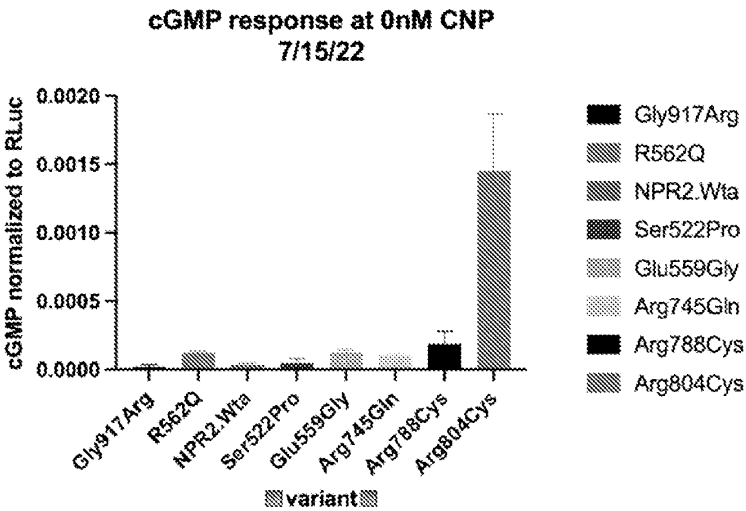


Figure 9A

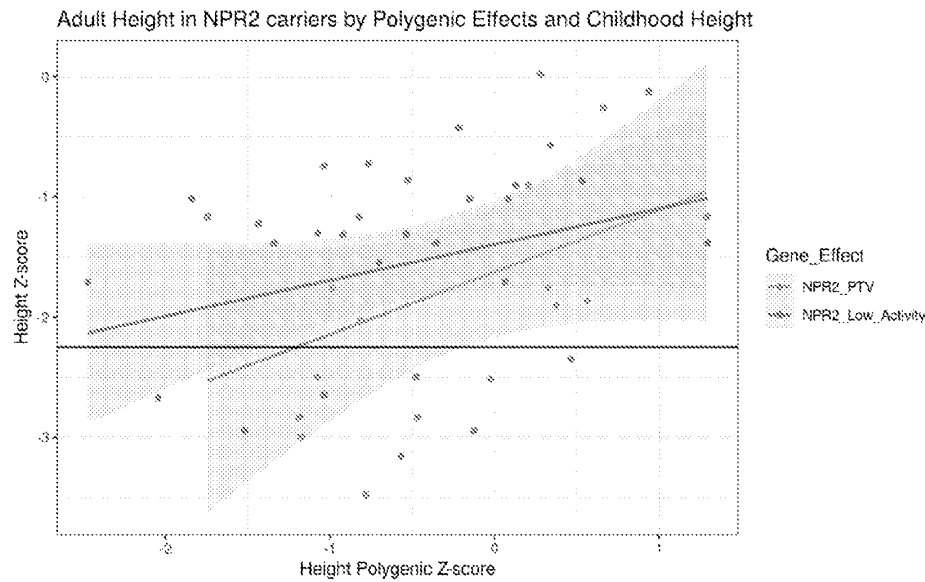


Figure 9B

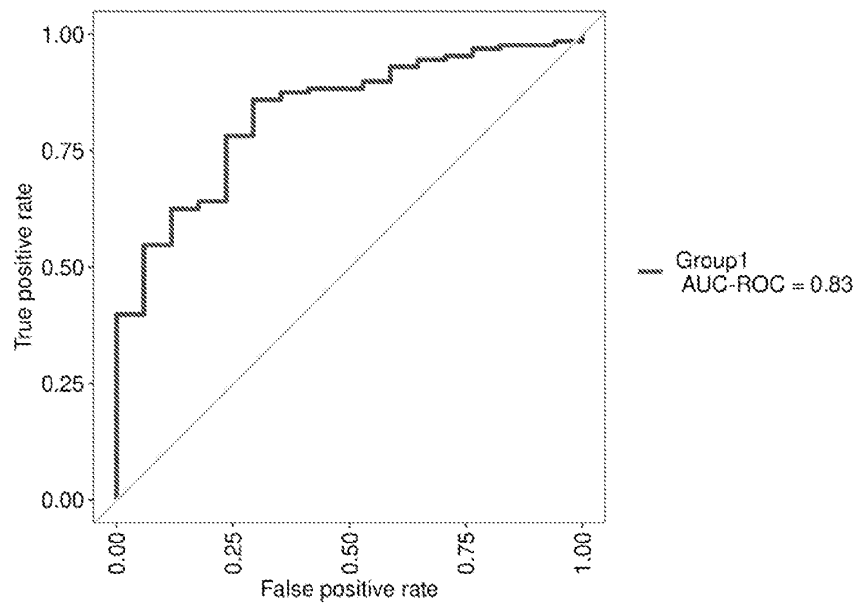


Figure 10

NPR2 protein, NP_003986.2

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1  malpslllllv aalaggvrrpp garnltlavv lpehnlsyaw awprvgpava lavealgral
61 pvdrlrfvsse legacseyla plsavdlkly hdpdlillpgp cvypaasvar fashwrlp11
121 tagavasgfs akndhyrtlv rtgpsapk1g efvvtlhghf nwtaraally ldartddrph
181 yftiegvfea lqgsnlsvqh qvyarepggp eqathfiran grivycgpl emlheillqa
241 qrenltngdy vffyladvfge slragptrat grpwqdnrtr eqaqalreaf qtvlvityre
301 ppnpeyqefq nrllirared fgvelgpslm nliagcfydg illyaevlne tiqeggtred
361 glrivekmqg rryhgvgtglv vmdknndret dfvlwamgdl dsqdfqpaah ysgaekqiww
421 tgrpipwvkg appsdnppca fdlddpscdk tplstlaiva lgtgitfimf gvssflifrp
481 yrklmlekel asmlwrirwe elqfgnsery hkgagsr1tl slrgssygs1 mtahgkyqif
541 antghfkgnv vaikhvnkkr ieltrqvlfe lkhmrdrvqfn hltrfigaci dppnicivte
601 ycprgslqdi lendsinldw mfryslindl vkgmaflhns i1sshgslks sncvdsrfv
661 lkitdyglas frstaepdds halyakklwt apellsnpl pttgmqkadv ysfgiilqei
721 alrsgpfyle gldlspkeiv qkvrngqrpy frpsidrtql neelvllmer cwaqdp1erp
781 dfgqikgfir rfnkeggt1i ldnlllrmeq yannleklve ertqayleek rkaeallyqi
841 lphsvaeqlk rgetvqaeaf dsvtiyfsdi vgftalsaes tpmqvvtlln dlytcfdaii
901 dnfdvykv1et igdaymvvsg lpgrngqrha peiarmalal ldavssfrir hrphdqlrlr
961 igvhtgpvca gvvglkmp1ry clfgdtvnta srmesngqal kihvssttkd aldelgcfql
1021 elrgdvemkg kgkmrtywll gerkgppg1l
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-Signal sequence underlined, amino acids 1-22

-CDS, amino acids 1-1047

(SEQ ID NO: 61)

Figure 11

Variant			Variant			Variant		
1	Arg18His	G53A	55	His410Gln	C1230G	109	Arg745Gln	G2234A
2	Gly21Arg	G61C	56	Glu415Lys	G1243A	110	Phe748Ile	T2242A
3	Arg23Trp	C67T	57	Thr421Met	C1262T	111	Arg754Trp	C2260T
4	Arg58Trp	C172T	58	Arg423Trp	C1267T	112	Gln756His	A2268C
5	Arg58Leu	G173T	59	Arg423Gln	G1268A	113	Glu766Gln	G2296C
6	Ala59Thr	G175A	60	Ala431Val	C1292T	114	Arg767Gln	G2300A
7	Leu82Met	C244A	61	Ser434Leu	C1301T	115	Arg776Trp	C2326T
8	Asp94Asn	G280A	62	Pro438His	C1313A	116	Arg787Gln	G2360A
9	Cys101Gly	T301G	63	Asp442Asn	G1324A	117	Arg787Pro	G2360C
10	Val102Ala	T305C	64	Asp442Gly	A1325G	118	Arg788Cys	C2362T
11	Arg110Gly	C328G	65	Ile458Val	A1372G	119	Arg804Cys	C2410T
12	Thr142Ile	C425T	66	Ile458Thr	T1373C	120	Asn810Ile	A2429T
13	Pro144Leu	C431T	67	Phe467Cys	T1400G	121	Arg819Cys	C2455T
14	His159Tyr	C475T	68	Met469Ile	G1407A	122	Lys829Asn	G2487C
15	His159Gln	C477G	69	Arg479Gln	G1436A	123	Arg848Trp	C2542T
16	Asn161Ser	A482G	70	Lys480Asn	G1440C	124	Arg848Gln	G2543A
17	Ala164Gly	C491G	71	Arg493His	G1478A	125	Glu850Asp	G2550C
18	Ala164Val	C491T	72	Arg506Cys	C1516T	126	Thr861Ile	C2582T
19	Arg165Cys	C493T	73	Arg506His	G1517A	127	Glu876Lys	G2626A
20	Arg174Cys	C520T	74	His508Asp	C1522G	128	Gln881Glu	C2641G
21	Asn195Ser	A584G	75	Ser513Asn	G1538A	129	Val882Ile	G2644A
22	Arg205Ter	C613T	76	Ser518Leu	C1553T	130	Val905Met	G2713A
23	Arg205Gln	G614A	77	Ser522Pro	T1564C	131	Ile908Thr	T2723C
24	Gly209Ser	G625A	78	Gly525Ser	G1573A	132	Gly917Arg	G2749C
25	Glu211Lys	G631A	79	Gly541Ser	G1621A	133	Arg921Gln	G2762A
26	Tyr225Ser	A674C	80	Asn546Tyr	A1636T	134	Arg932His	G2795A
27	Ile226Val	A676G	81	Ala549Thr	G1645A	135	Leu938Val	C2812G
28	His234Gln	T702G	82	His552Arg	A1655G	136	Asp939Glu	T2817A
29	Arg242Lys	G725A	83	Val553Leu	G1657C	137	Arg945Cys	C2833T
30	Tyr250Ter	T750A	84	Ile558Thr	T1673C	138	Arg947His	G2840A
31	Arg263His	G788A	85	Glu559Gly	A1676G	139	Pro950Thr	C2848A
32	Gly265Asp	G794A	86	Asp573Cysfs Ter24	x1717- 1718	140	Leu956Gln	T2867A
33	Thr267Ala	A799G	87	Ala585Thr	G1753A	141	Arg957Cys	C2869T
34	Arg272Trp	C814T	88	Arg601His	G1802A	142	Ile958Thr	T2873C
35	Arg272Gln	G815A	89	Glu609Lys	G1825A	143	Val965Asp	T2894A
36	Asp276His	G826C	90	Asp611Glu	C1833G	144	Cys966Ter	T2898A
37	Asn277Ser	A830G	91	Leu615Phe	G1845C	145	Ser1003Tyr	C3008A
38	Arg280Trp	C838T	92	Arg620Cys	C1858T	146	Thr1004Ile	C3011T
39	Thr297Met	C890T	93	Lys629Arg	A1886G	147	Lys1006Thr	A3017C
40	Pro301Ser	C901T	94	Ser648Ala	T1942G	148	Leu1009Val	C3025G

Variant			Variant			Variant		
41	Tyr306Asp	T916G	95	Ala672Val	C2015T	149	Gly1013Arg	G3037A
42	Arg312Pro	G935C	96	Asp675Glu	T2025A	150	Asp1022CysfsTer35	x3063-3064
43	Arg318Gln	G953A	97	His678Arg	A2033G	151	Met1025Ile	G3075A
44	Glu319Gln	G955C	98	Leu680Phe	C2038T	152	Arg1032Ter	C3094T
45	Glu324Gln	G970C	99	Tyr681His	T2041C	153	Arg1032Gln	G3095A
46	Phe337dup	Phe337dup	100	Ala688Ser	G2062T	154	Gly1038Arg	G3112A
47	Arg358Trp	C1072T	101	Pro696Leu	C2087T	155	Arg1040Trp	C3118T
48	Glu359Ala	A1076C	102	Leu697Phe	G2091T	156	Arg1040Gln	G3119A
49	Arg363Gln	G1088A	103	Ala705Thr	G2113A	157	Pro1043Ser	C3127T
50	Ile364MetfsTer13	x1092	104	Ile717Thr	T2150C	158	Gly1045Arg	G3133A
51	Lys367Glu	A1099G	105	Ser721Arg	T2163A	159	Leu1046SerfsTer?	x3136
52	Gly370Arg	G1108A	106	Glu727Gln	G2179C	160	Leu1047Pro	T3140C
53	Thr377Asn	C1130A	107	Ile736Met	T2208G			
54	Arg388Ter	C1162T	108	Gln744del	x2230-2233			

Figure 11 continued

Figure 12

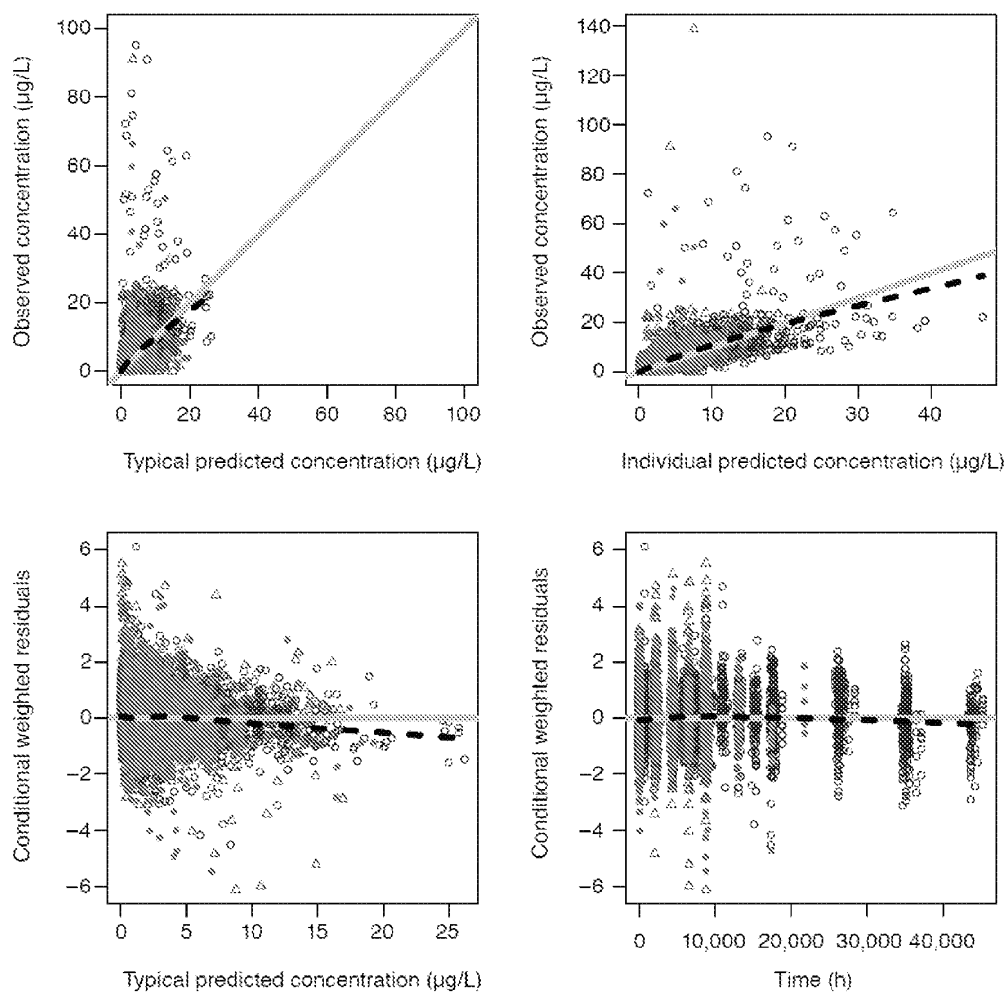


Figure 13

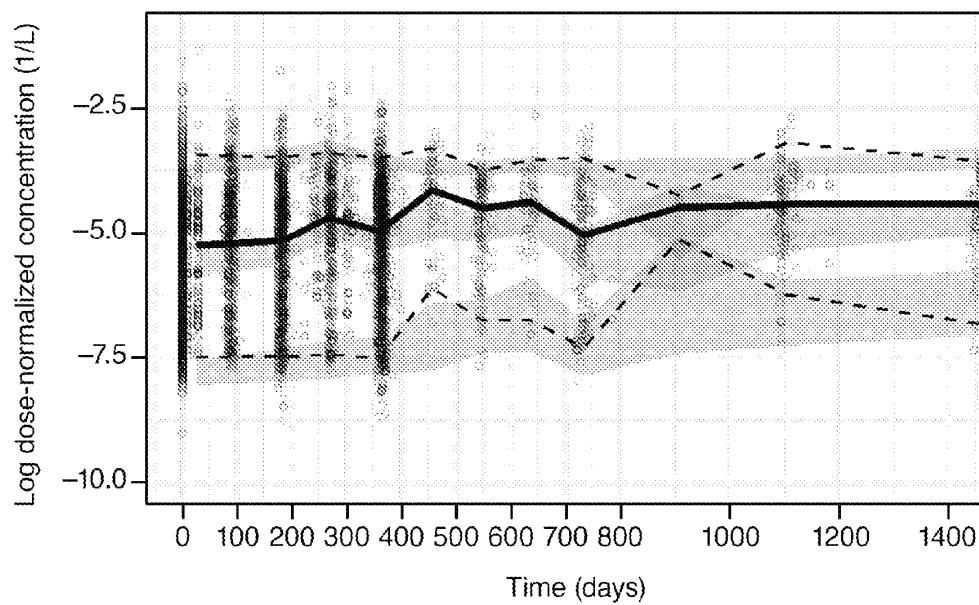


Figure 14

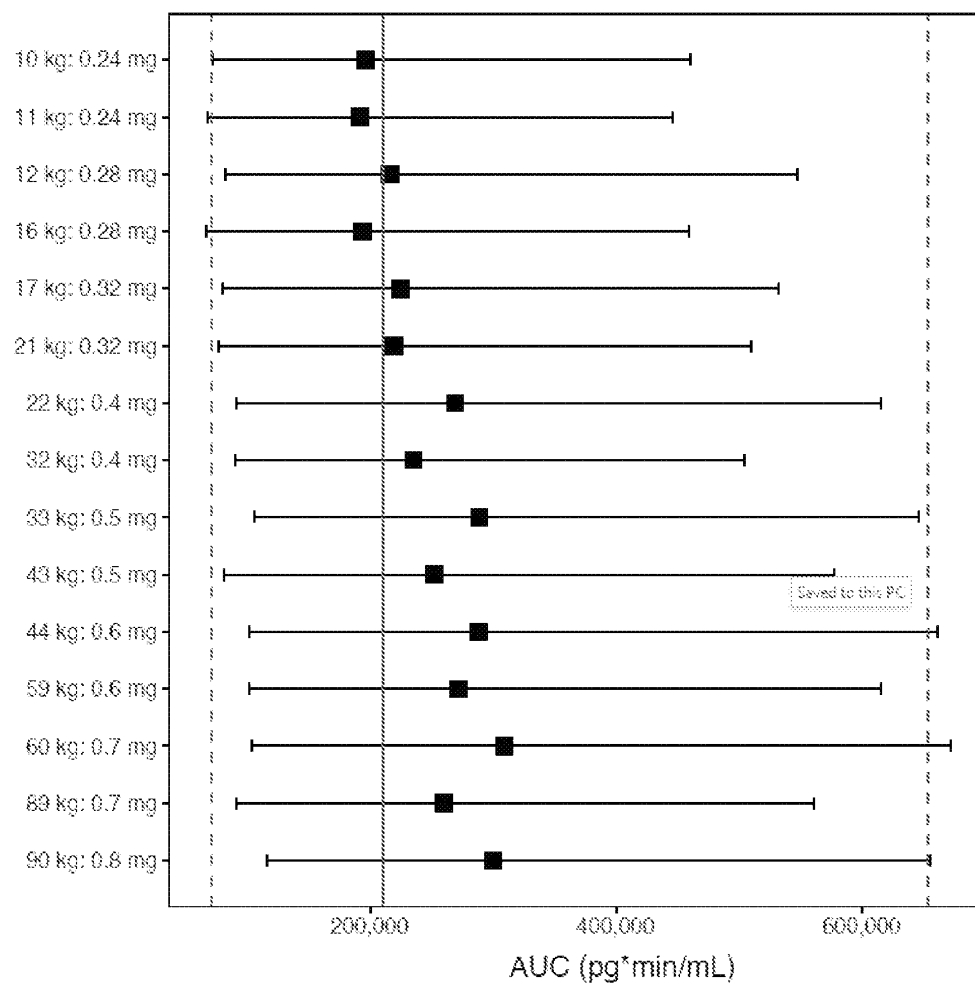


Figure 15

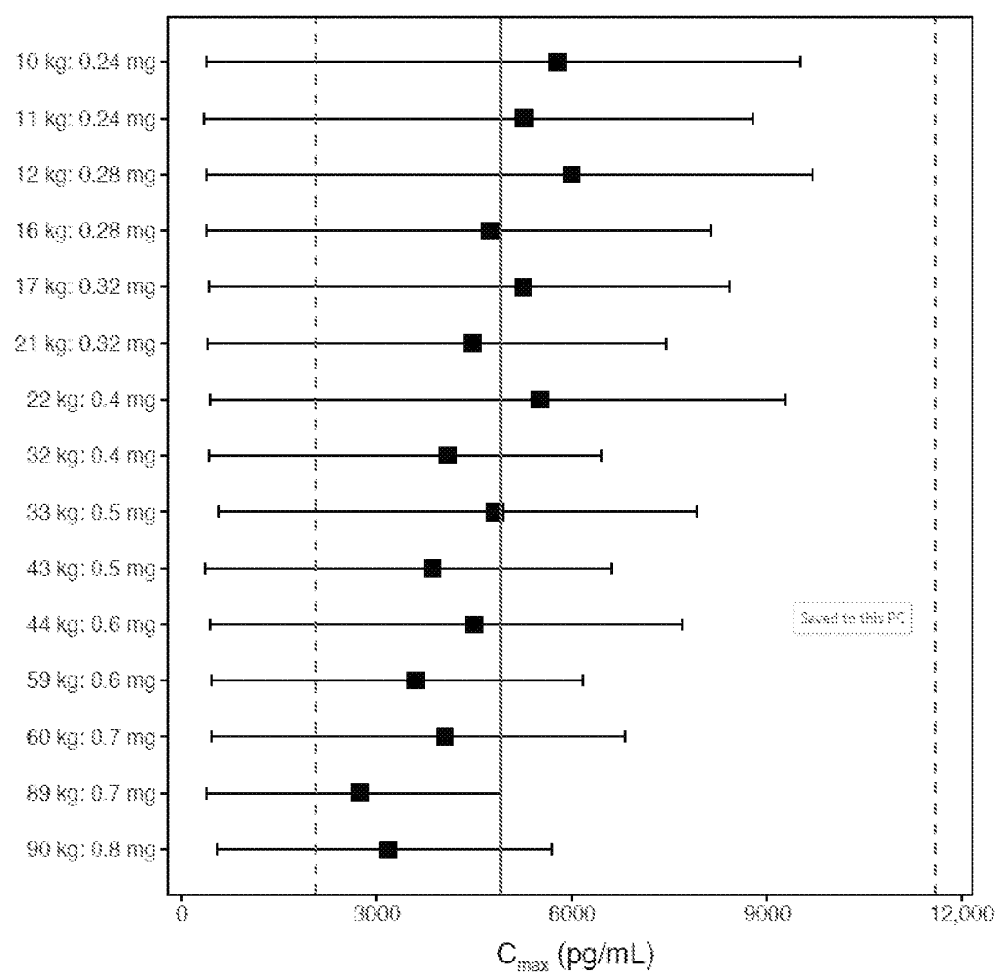


Figure 16A

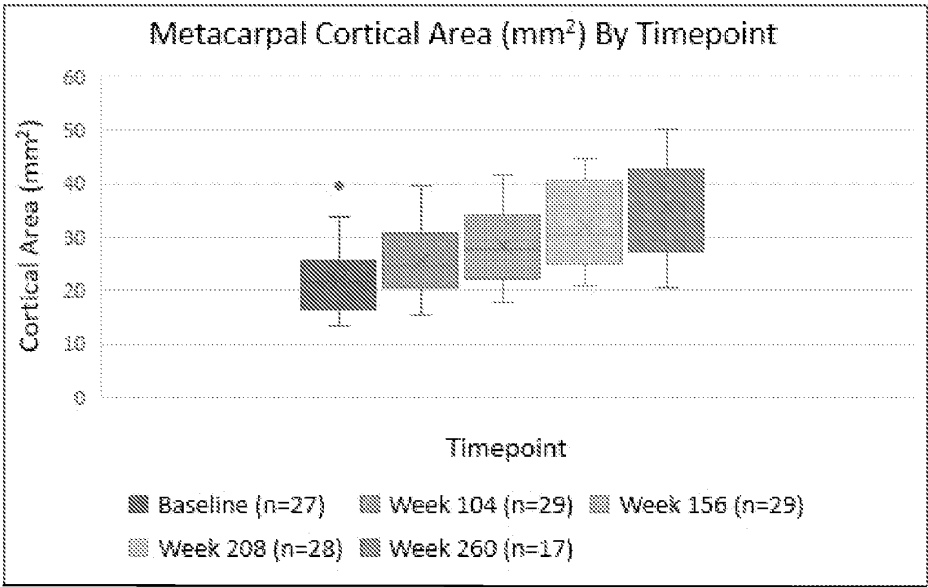


Figure 16B

