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(54) Title: **LIPID NANOPARTICLES FOR GENE EDITING SYSTEMS**

SEQ ID NO:	Chromosome	Protospacer (cRNA)	Cut site coordinate	Score
1	chr2	CGAAGCCGCGGUAUCCGG	9555543	83
2	chr2	CUGACGCUUGAGUUUAAAG	9450221	82
3	chr2	UUGCGCGGAGGGAUACAG	9490422	82
4	chr2	UGGGCGGAUUAUACUAG	9555838	80
5	chr2	UUCUUAUUCUGACACGCG	9555577	80
6	chr2	UUGACGACUGCGCGCGGA	9489412	78
7	chr2	AGCGACUGCAGCUUGAAGGA	9555183	78
8	chr2	CAACAGCGACUGCACGUUA	9555187	78
9	chr2	AGUUUGUGGAAUCUCAGGG	9555285	78
10	chr2	AGCAGAAUUGGCCCCCAUAG	9510046	78
11	chr2	GUAGGGGGCGCGGAACAUAG	9555505	78
12	chr2	CGGAUUAUUGCUAUCGAA	9502195	77
13	chr2	UAAAGUUUGUGGAAUCUGA	9505298	77
14	chr2	GGACUUCUUCACUGGACACG	9555735	77
15	chr2	CGCGGACUUGCGGAUAGCC	9555537	77
16	chr2	AUGCAUCCUUUCUGCGAGA	9497149	76
17	chr2	AAGUAGCAUUAUUGCCUCC	9502214	76
18	chr2	CCUUCUUGGUGUCUUAUCG	9510047	76
19	chr2	UUGCUUUAUAGCCCGGUU	9517975	76
20	chr2	GGUUCUUGCAGUCUCUGG	9555517	76
21	chr2	CAGCAGAAAGGAACACGC	9555575	76
22	chr2	CACAAGCUCACAUUGGACG	9490334	75
23	chr2	GUCAGUCCGACACACACUA	9510036	75
24	chr2	AACGUUACAGUACUUAUUC	9538808	75
25	chr2	CUGGCGCGGAGGGAUACCA	9480421	74
26	chr2	CGUCCAAUUGCAGACGACA	9490499	74
27	chr2	CUGGCUUUAUACGAGUUC	9555514	74
28	chr2	CAGCGUUGUUCUUCUUGG	9555552	74
29	chr2	GGUUGCGGCGGACACGAA	9555564	74
30	chr2	GAACAUUCUUGGUCUCUUC	9492953	73
31	chr2	GUCACAAAUUCUACUUAUC	9484690	73
32	chr2	AUUGAUUCCUUCUUGCGAG	9487150	73
33	chr2	GGGACUACACUUCUUAUAC	9487247	73
34	chr2	AUAAAGUUUGUGGAAUCUG	9505298	73
35	chr2	GCGUUCUUGAAACACUCCU	9555508	73
36	chr2	GGAAGGAGAACUAGAUCCGA	9510072	73
37	chr2	CCAUAUAGAGUUGUAACC	9510118	73
38	chr2	CAUUAUUGGAAACACUUAU	9523295	73
39	chr2	CAUUGUUCUACAGAUACAU	9528150	73
40	chr2	UUAUUGUUCUACAGAUACA	9528151	73
41	chr2	UUUUUACUAGACACUGGU	9536702	73
42	chr2	GUCUUUACGAGUUCUGGU	9555518	73
43	chr2	CAAAUUGUAGAAACAGUAC	9483505	72
44	chr2	UUGCUUUCUUGCGGAGAA	9487154	72
45	chr2	UUGCGUAGAACCCUAGUUC	9535912	72
46	chr2	GCGCGACUUCGCGGAGUAC	9555538	72
47	chr2	CGUUGUGCGCGCGGACUUC	9555547	72
48	chr2	CGAAAGAGCGGCGGUGUC	9555580	72

FIG. 1

(57) Abstract: The present disclosure provides compositions and methods for treating and preventing localized nociception, inflammation, or morphological changes associated with joint disease or illness, back or spine conditions or disorders, and musculoskeletal diseases or dysfunction with an LNP-encapsulated CRISPR/Cas9 gene editing system.

[Continued on next page]

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