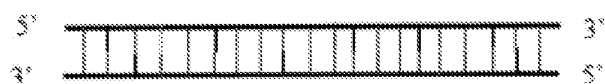


Intact dsDNA



Nicked DNA



Gapped DNA



Abasic DNA

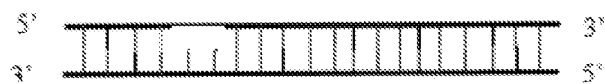


FIG. 1A

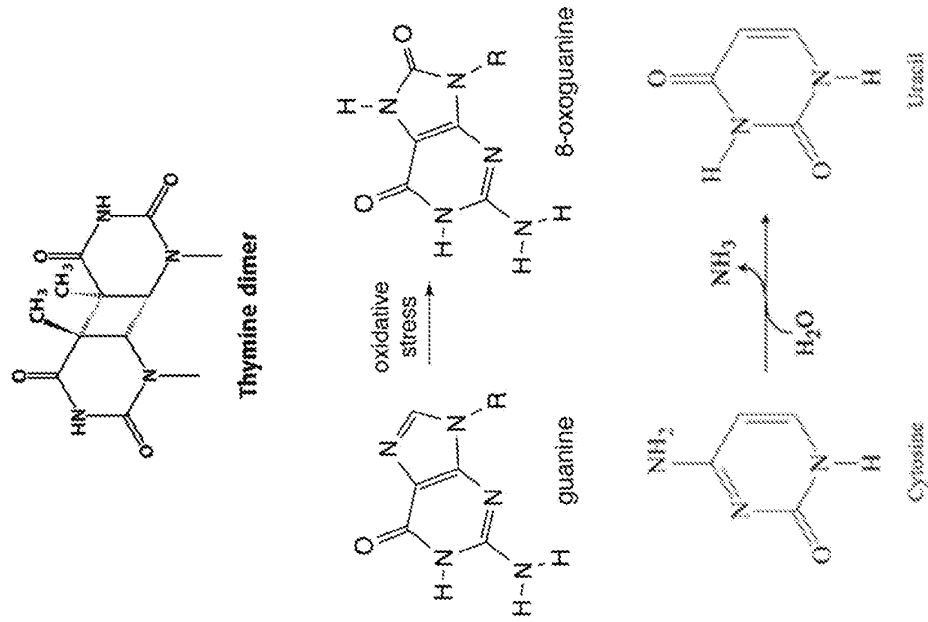


FIG. 1B

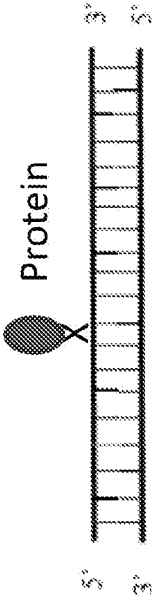


FIG. 1C

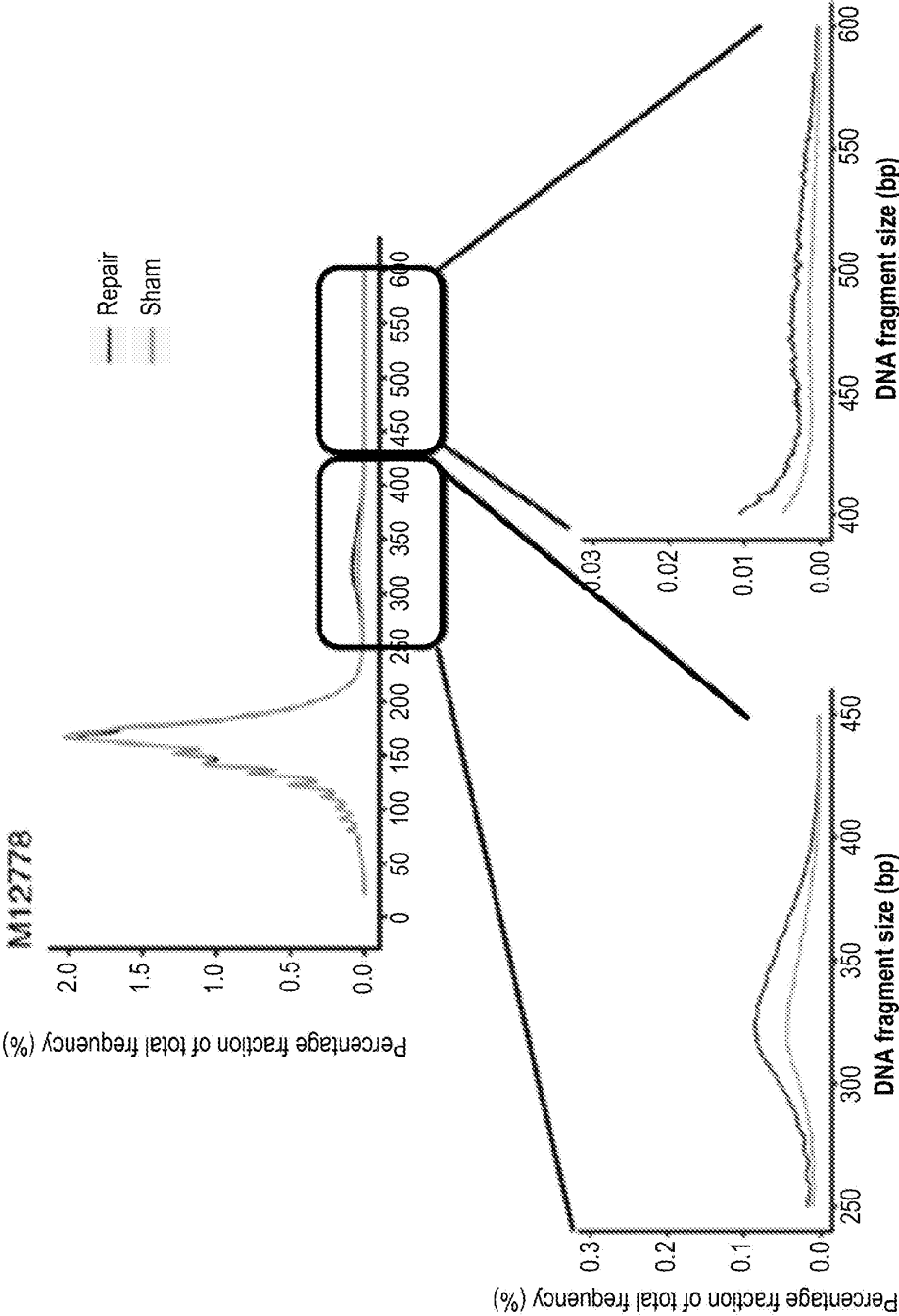


FIG. 2A

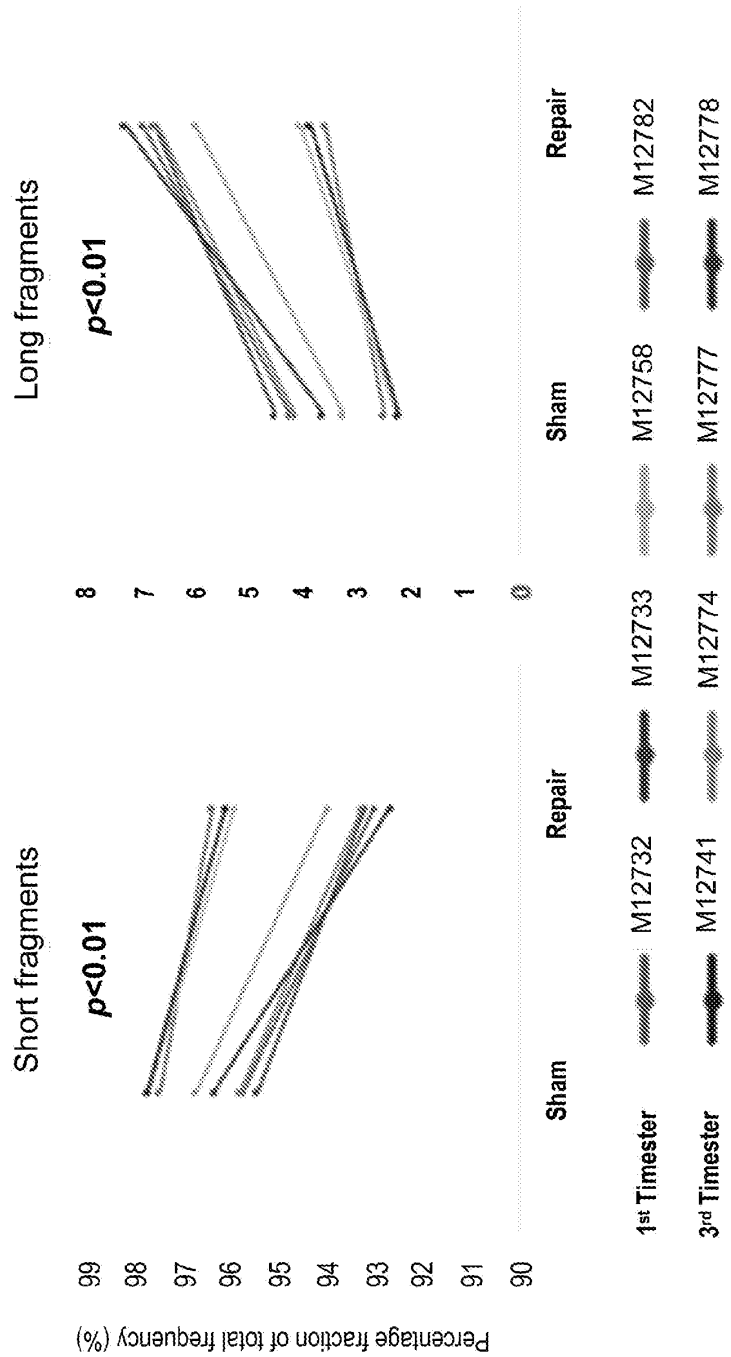


FIG. 2B

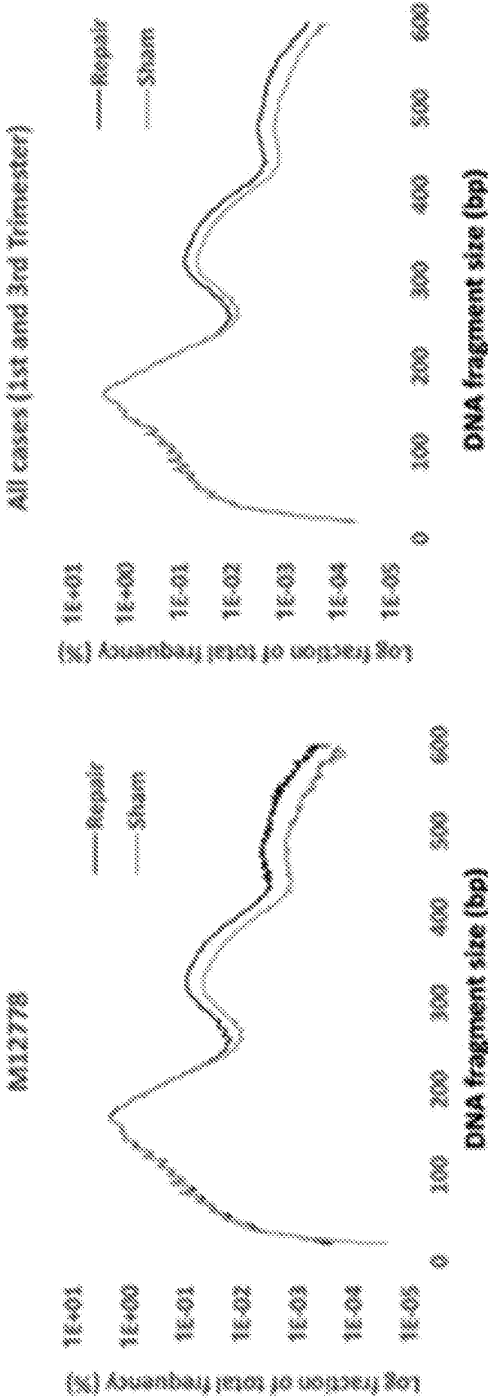
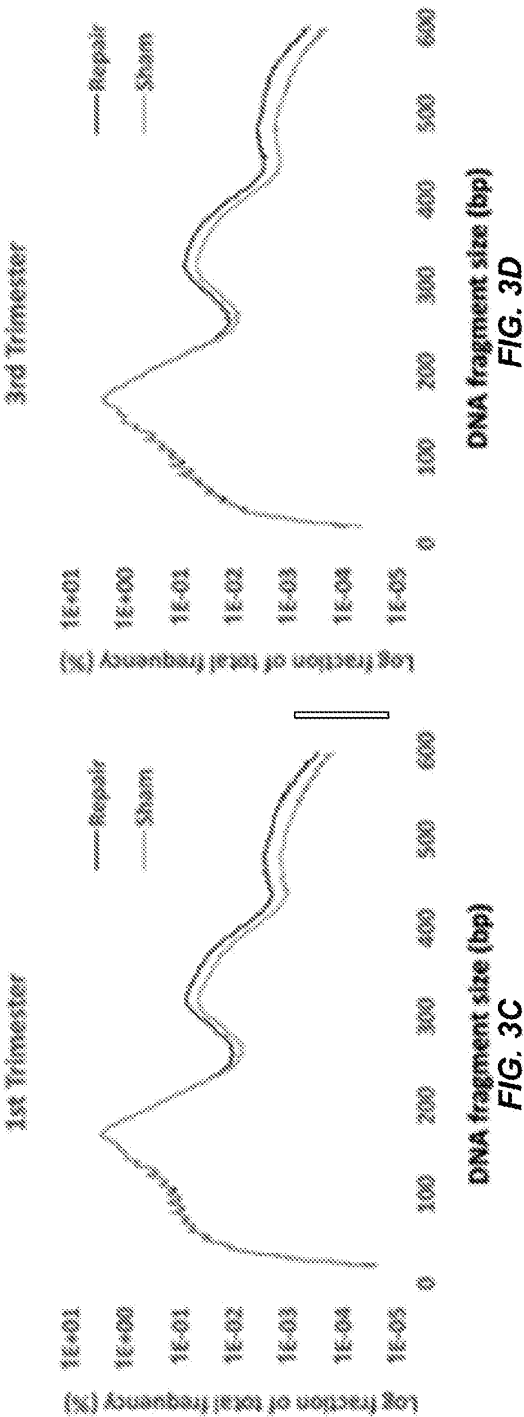


FIG. 3B



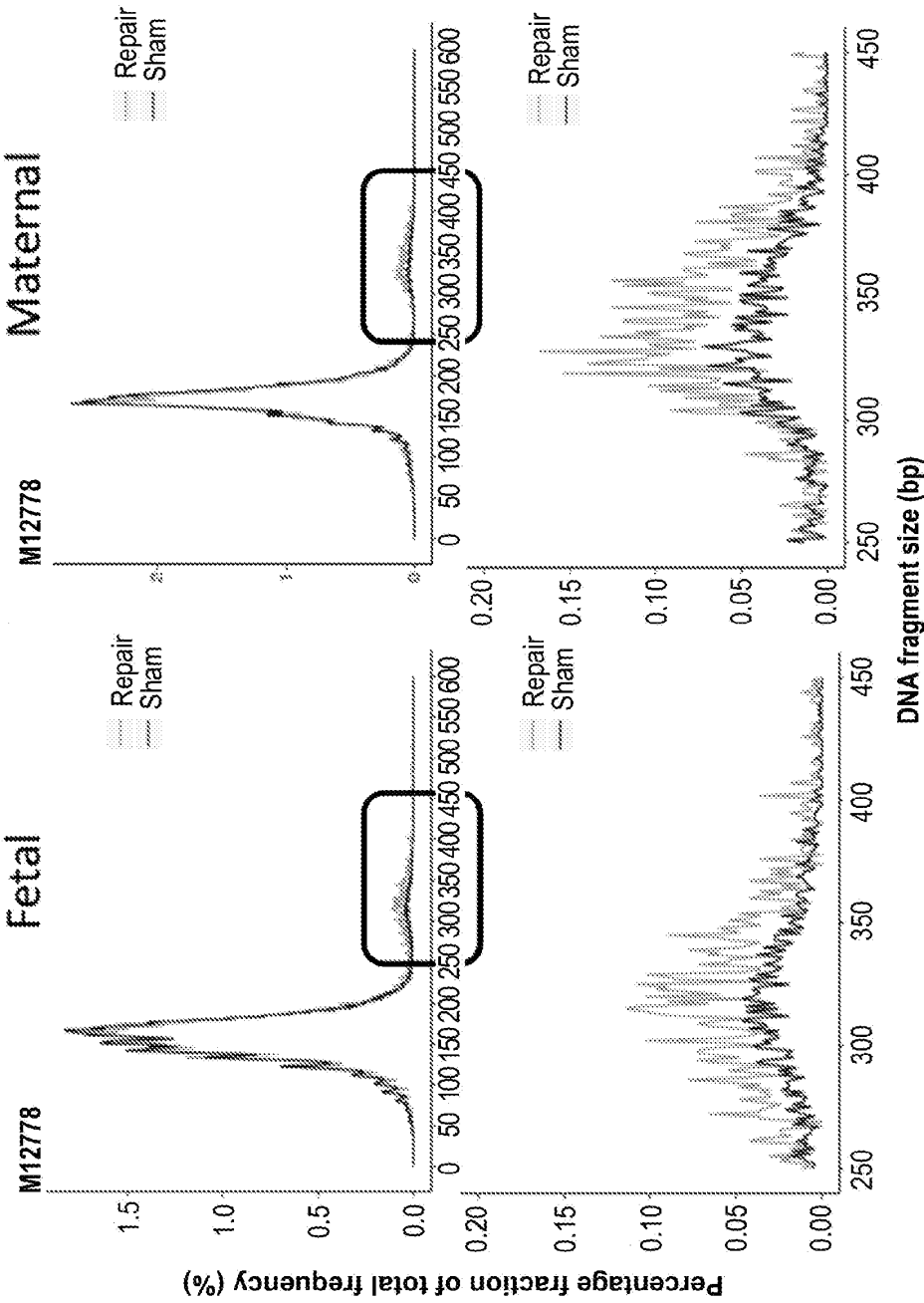


FIG. 4A

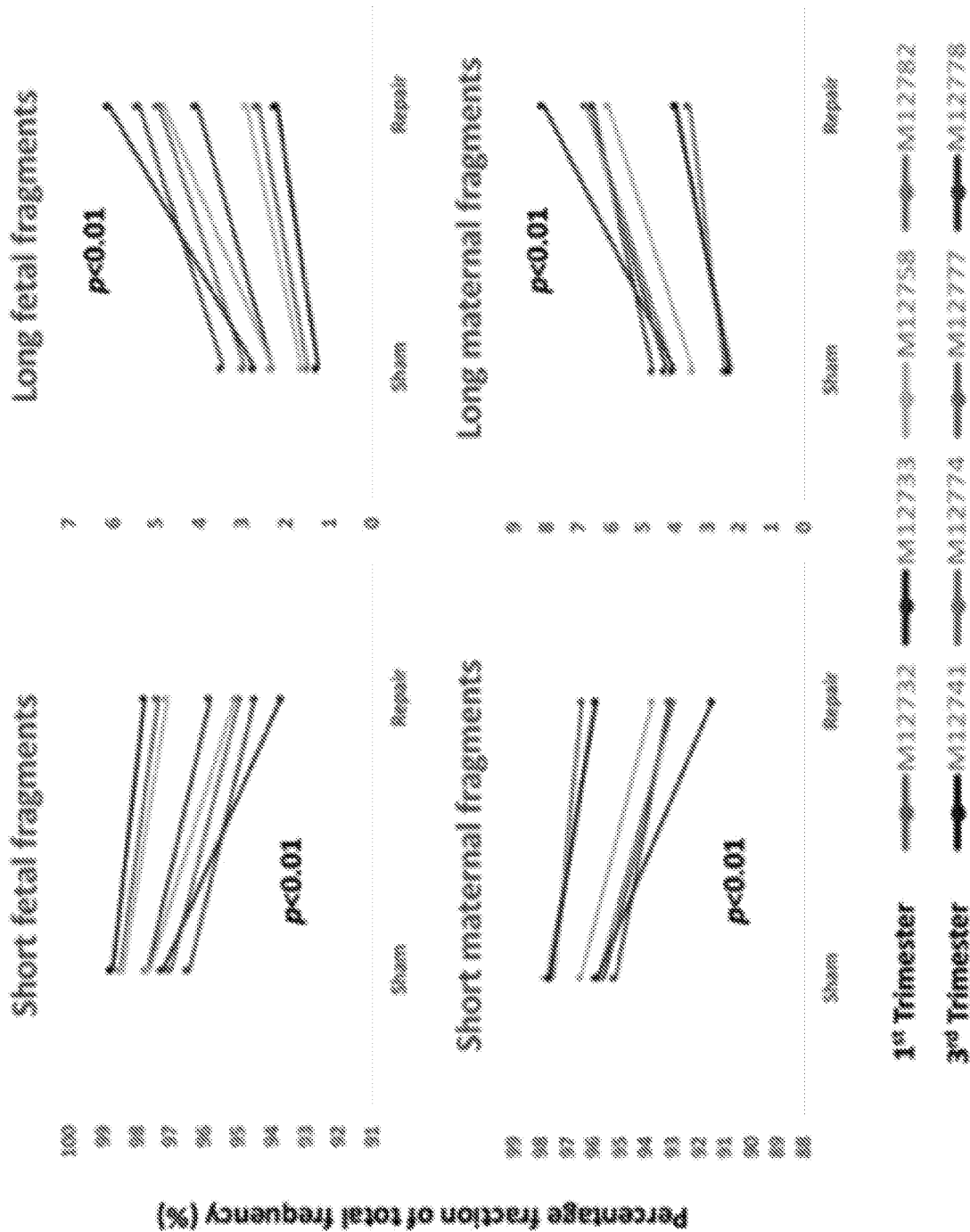


FIG. 4B

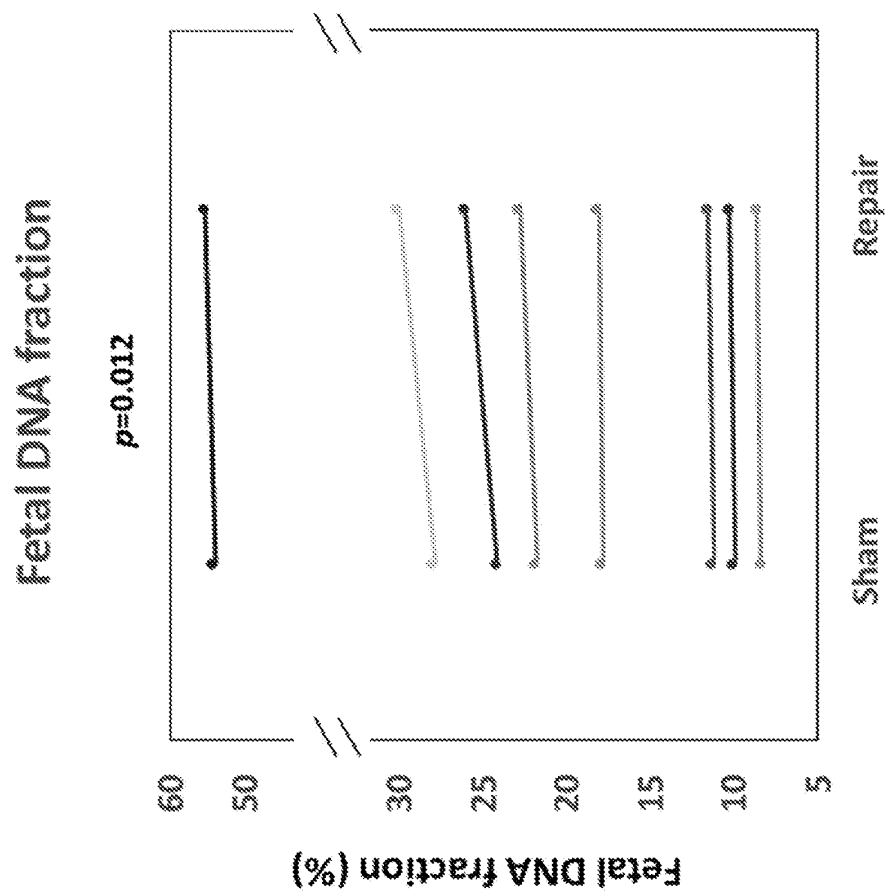


FIG. 5

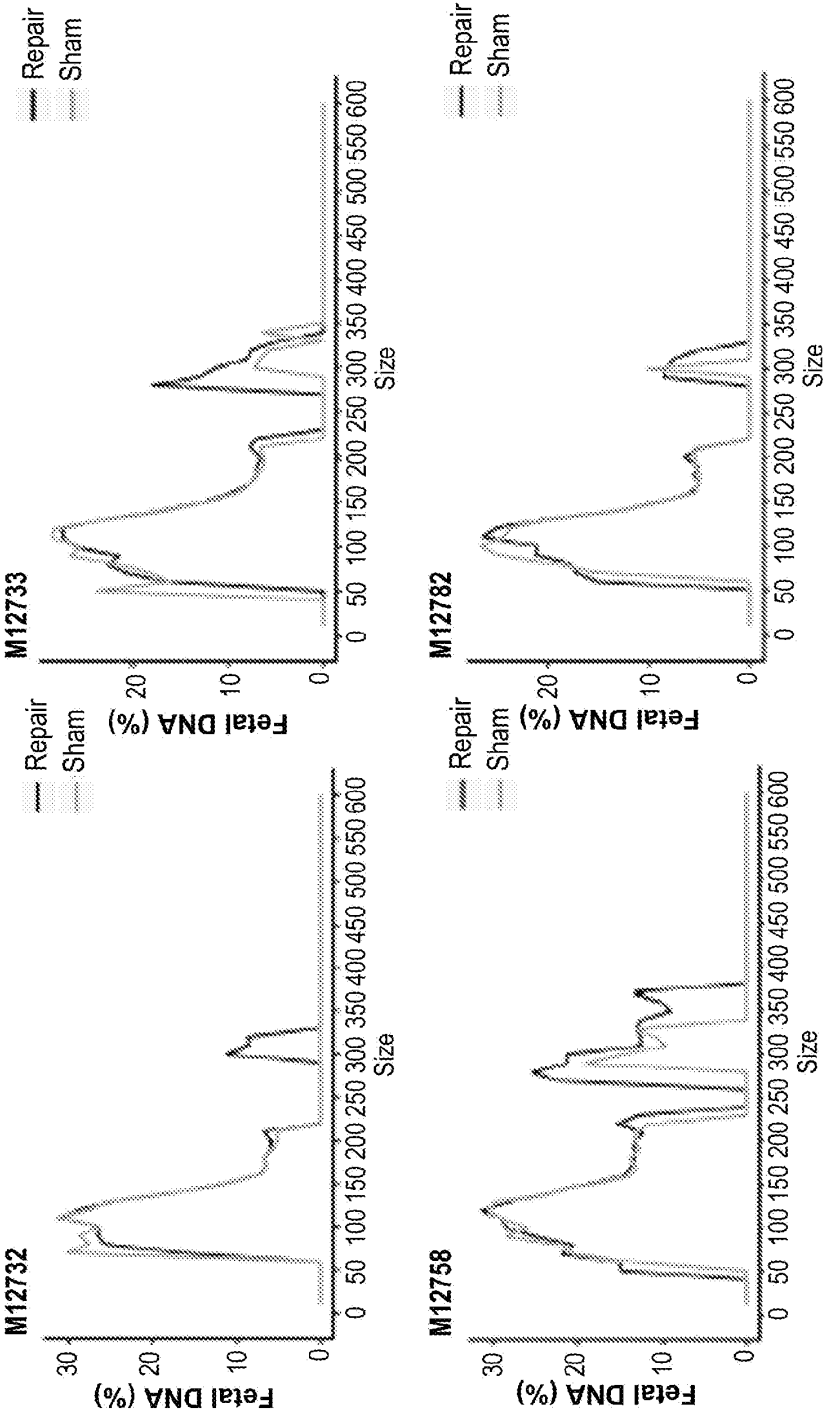


FIG. 6A

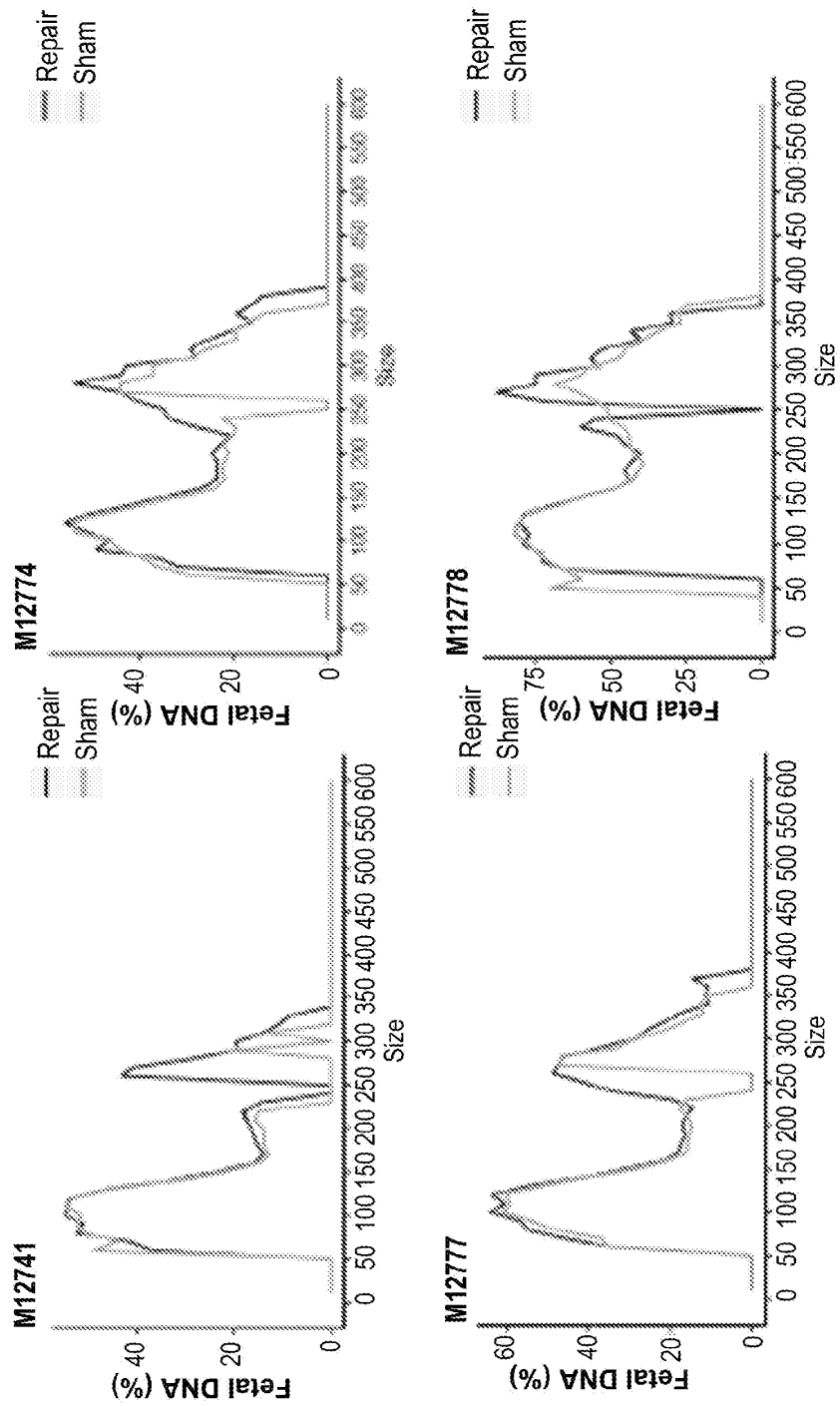


FIG. 6B

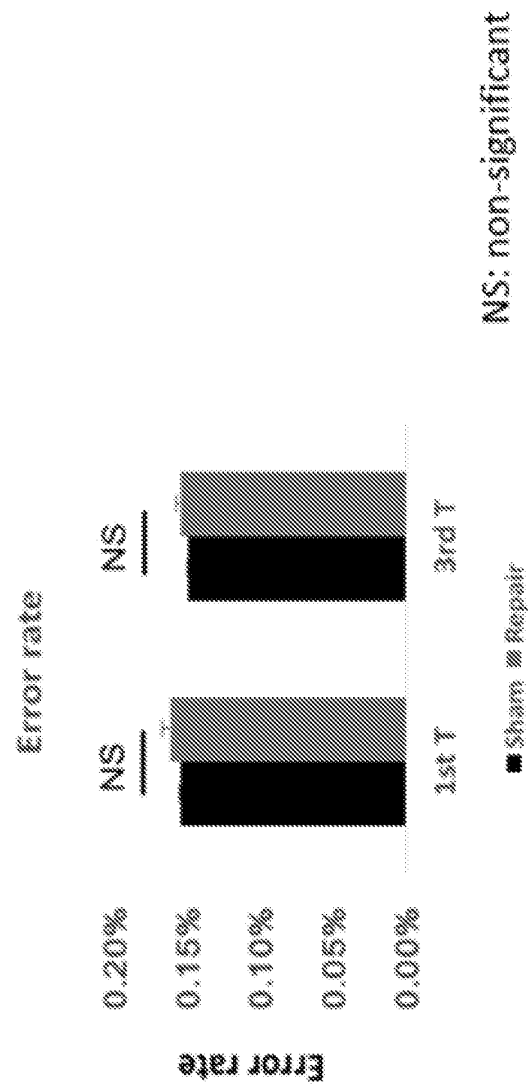


FIG. 7

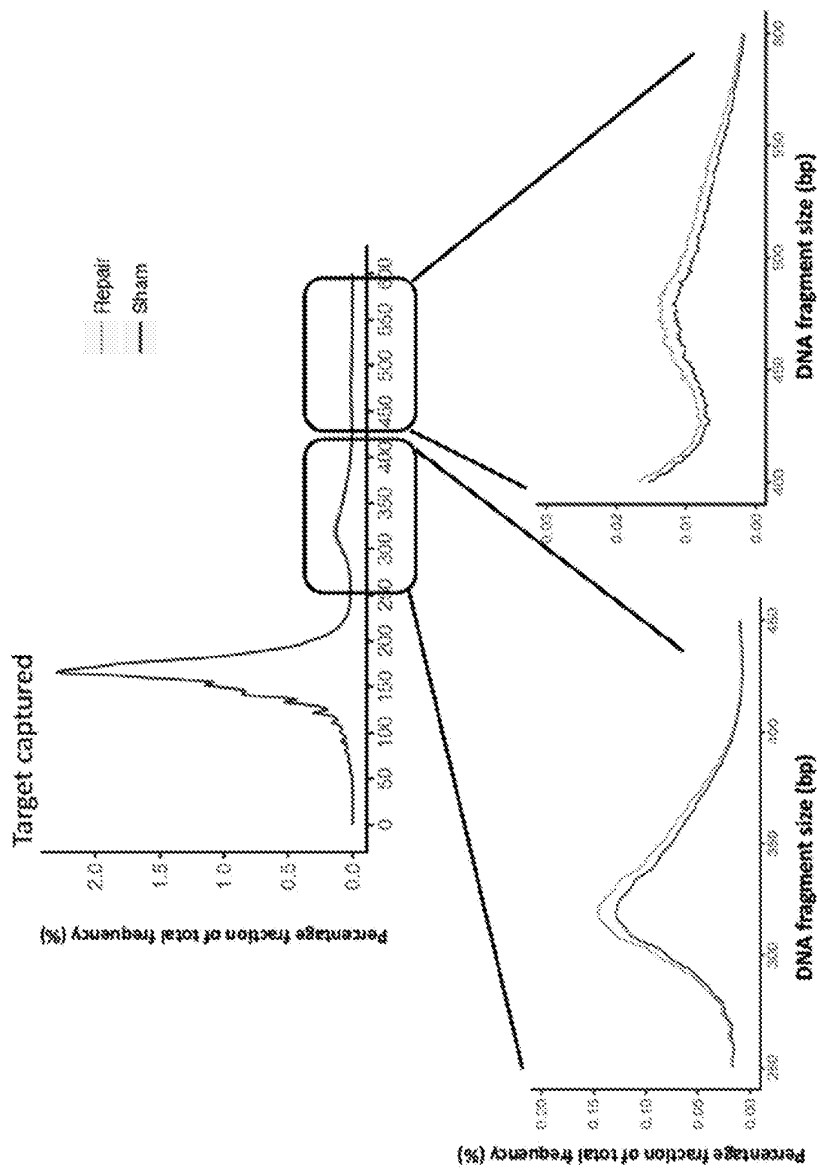


FIG. 8

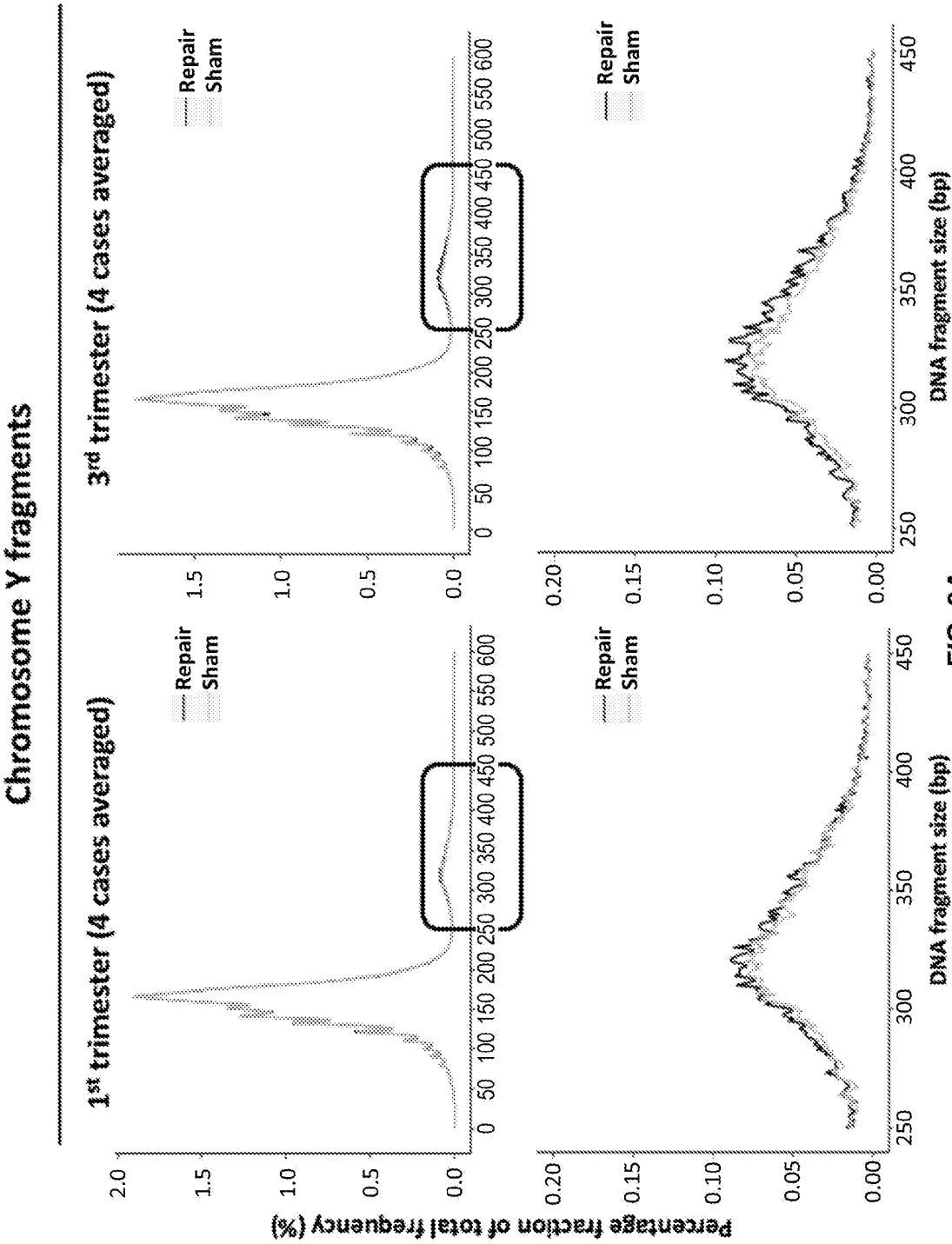


FIG. 9A

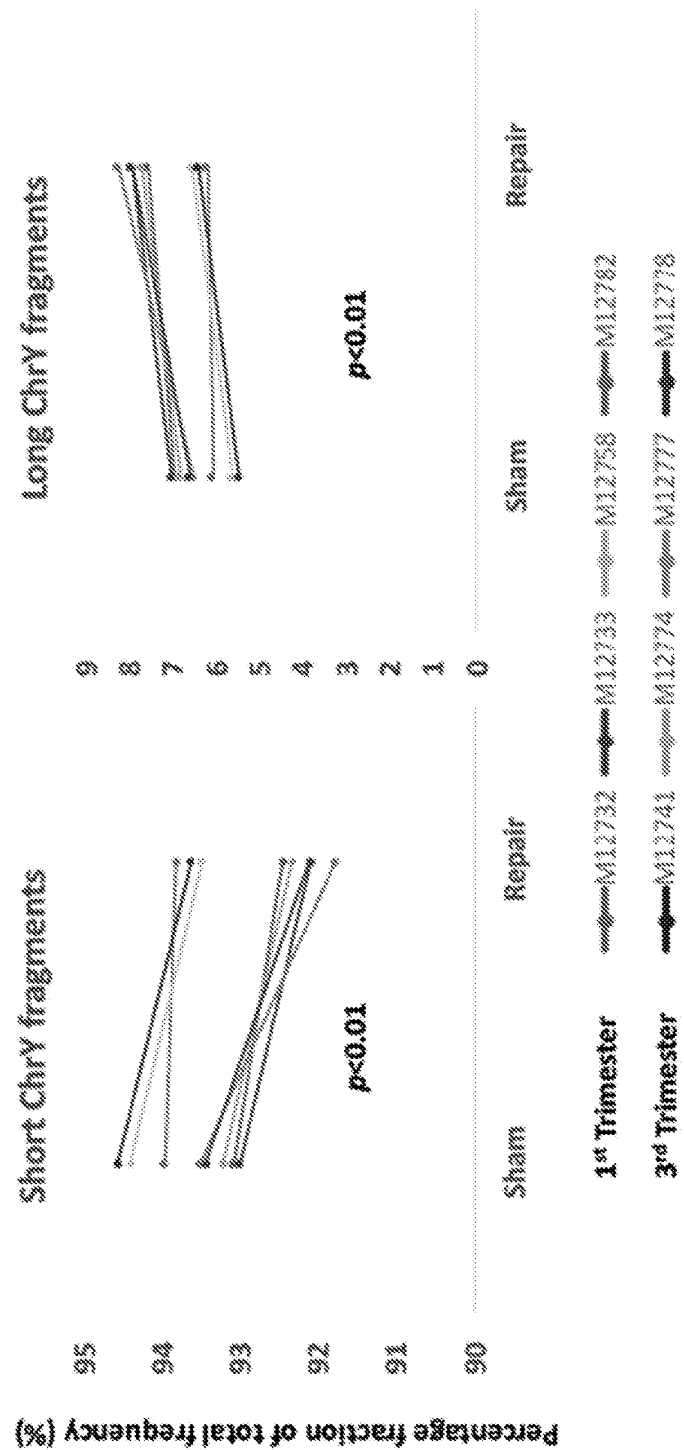


FIG. 9B

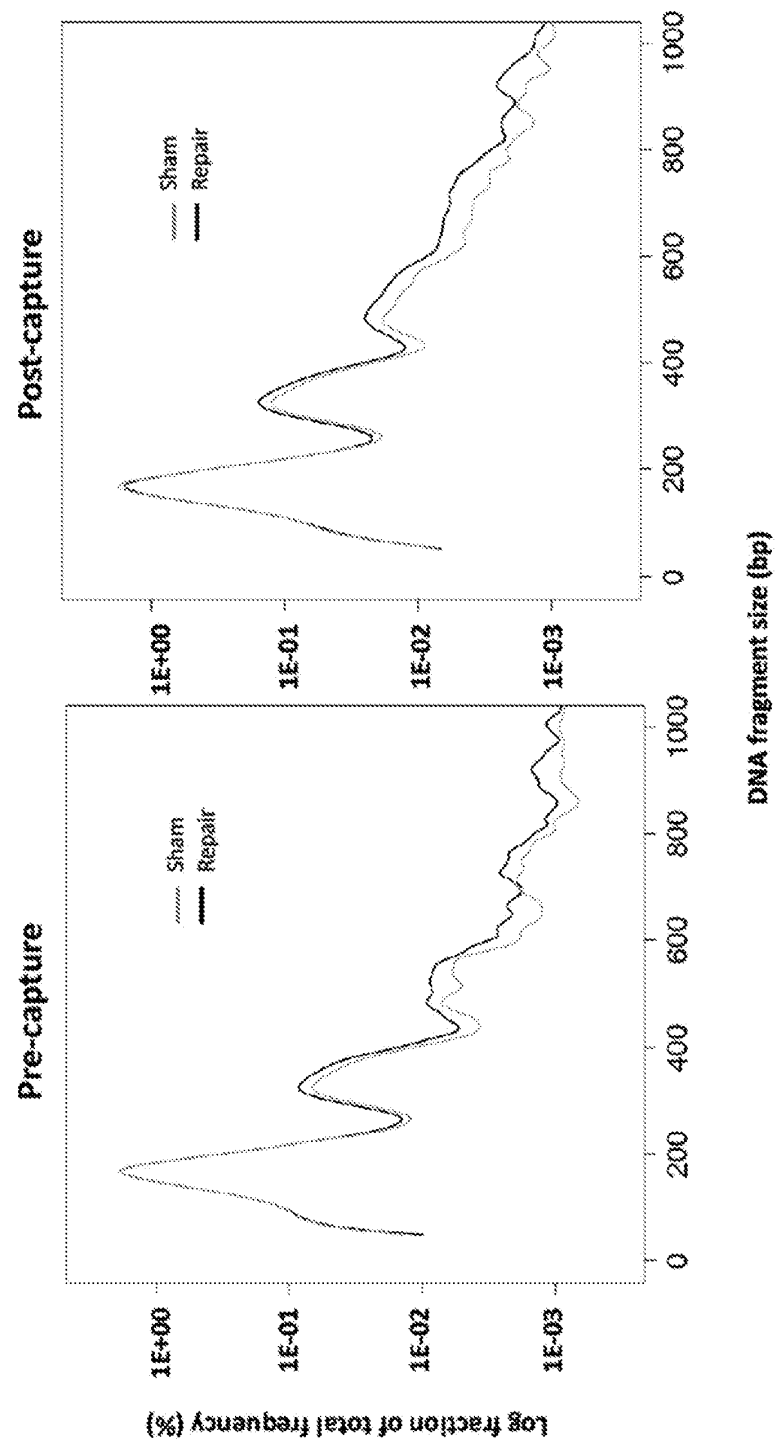


FIG. 10

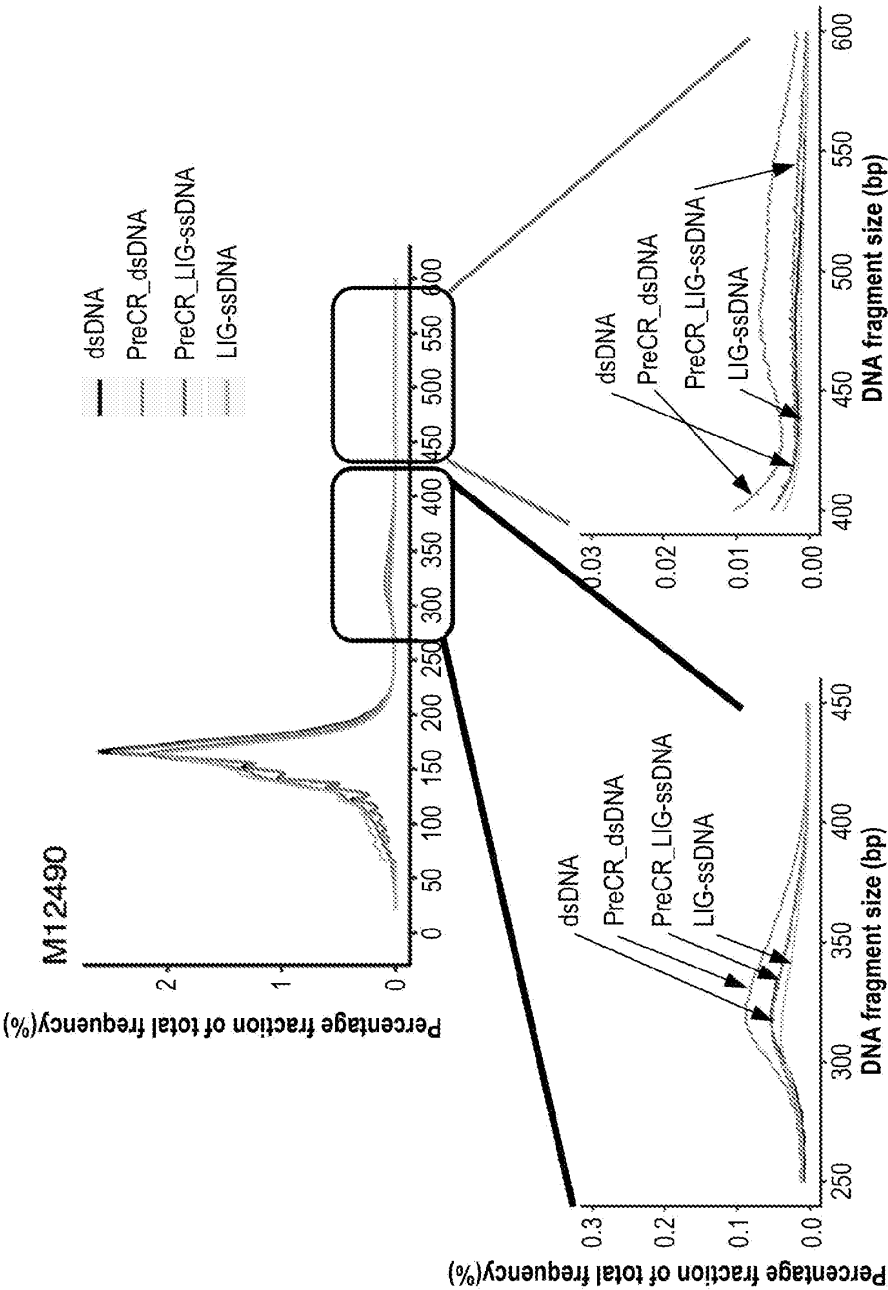


FIG. 11

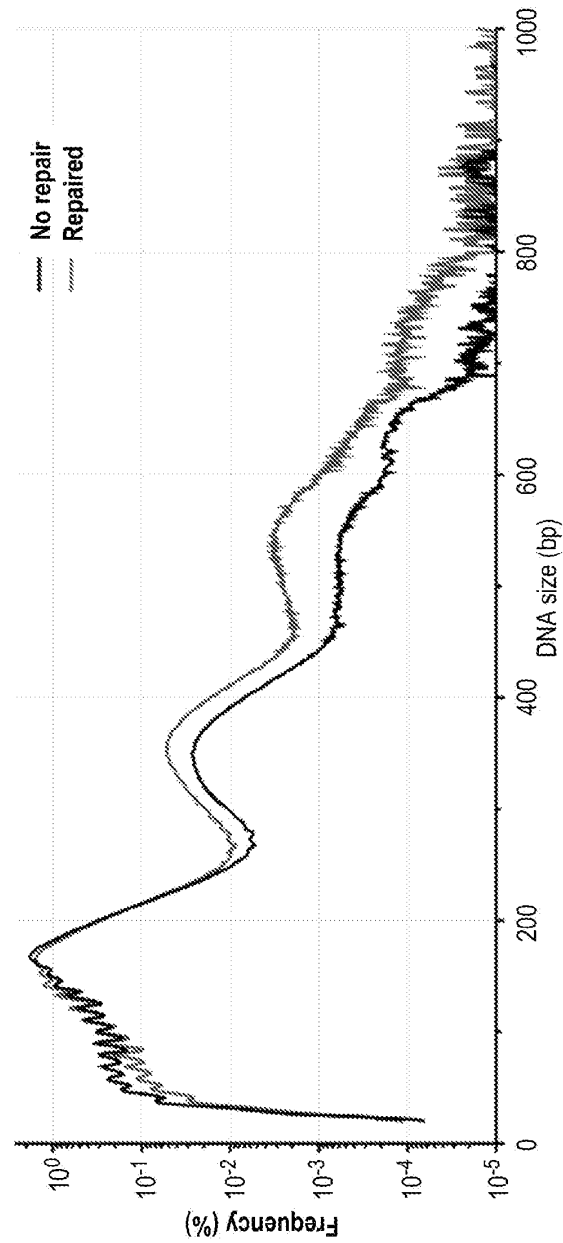


FIG. 12

Size range	T21 subject					
		M12792	M12922	M12930	M12949	M12952
Short (0-250 bp)	Sham	96.6%	96.3%	95.6%	94.6%	96.6%
	Repair	93.7%	92.1%	92.0%	90.0%	93.1%
	Relative % change	-3.0%	-4.4%	-3.8%	-5.1%	-3.6%
	Absolute % change	-2.9%	-4.2%	-3.6%	-4.6%	-3.5%
Long (>250 bp)	Sham	3.4%	3.7%	4.4%	5.4%	3.4%
	Repair	6.3%	7.9%	8.0%	10.0%	6.9%
	Relative % change	85.3%	113.5%	81.8%	85.2%	102.9%
	Absolute % change	2.9%	4.2%	3.6%	4.6%	3.5%

FIG. 13

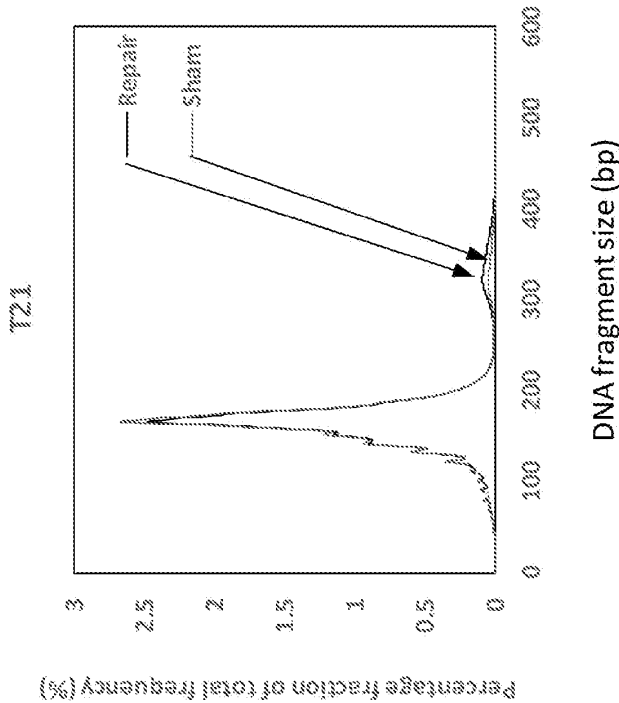


FIG. 14B

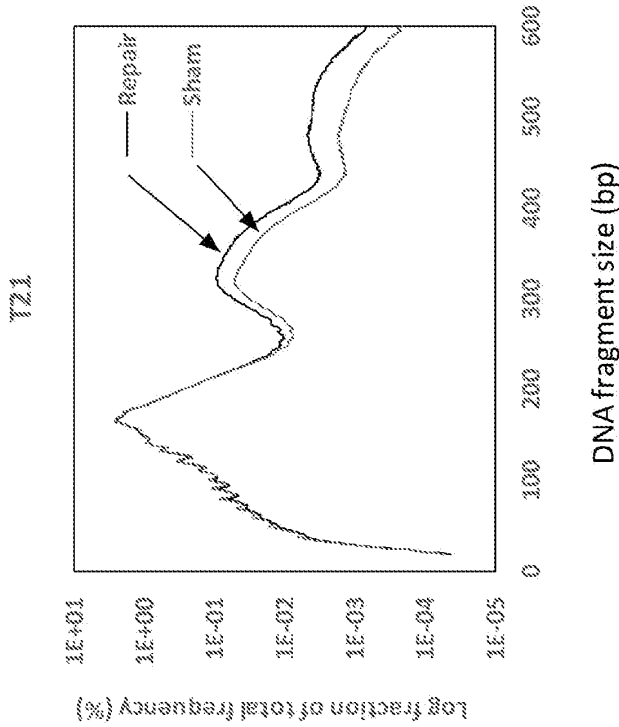


FIG. 14A

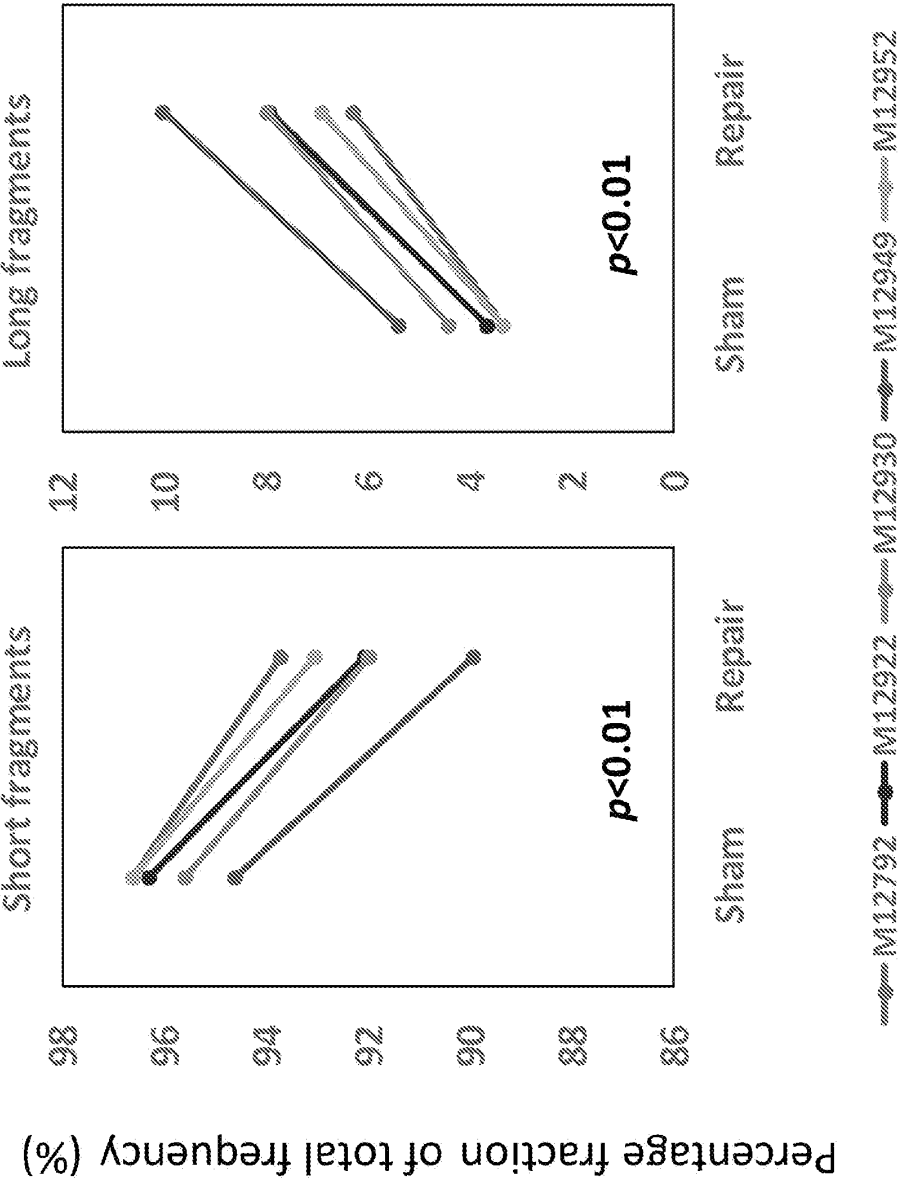


FIG. 15

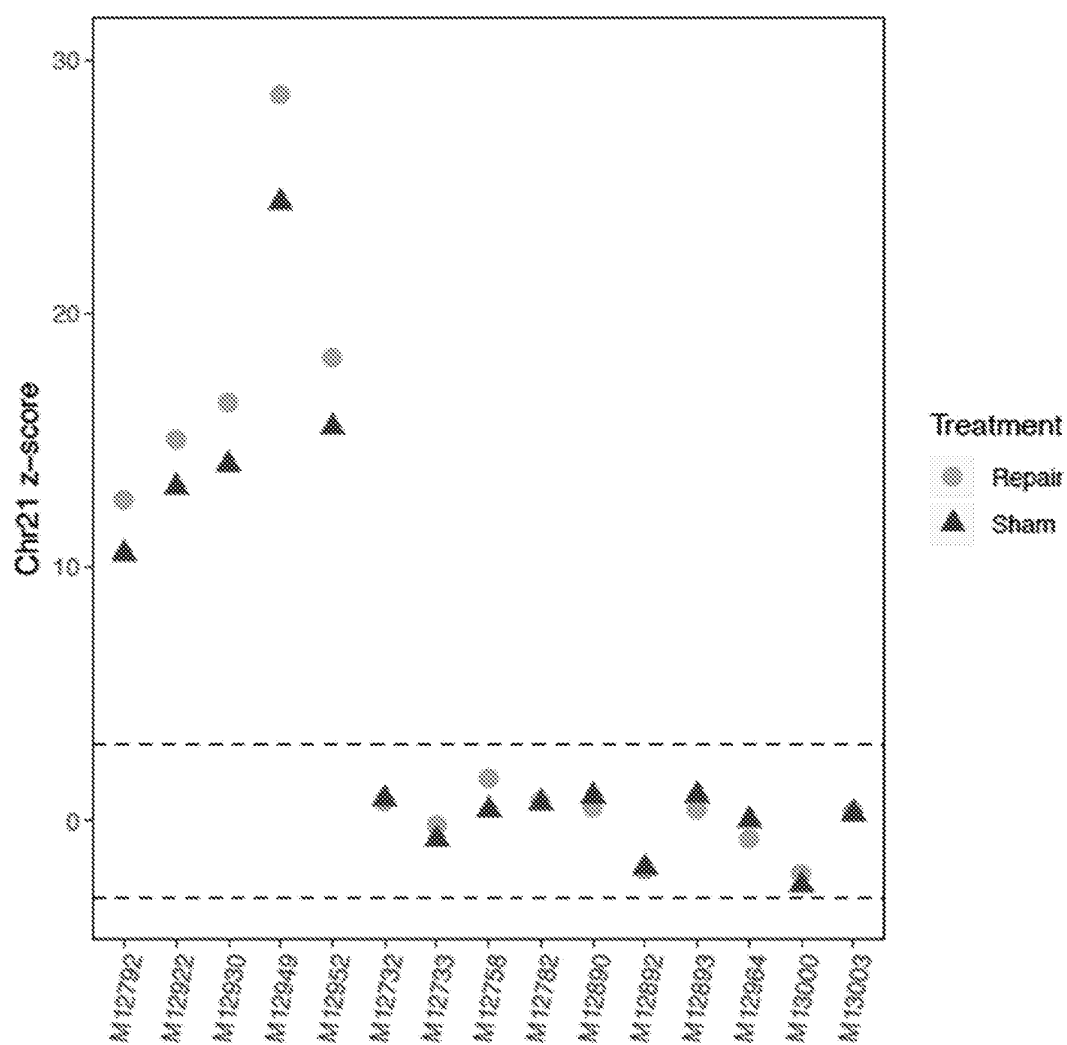
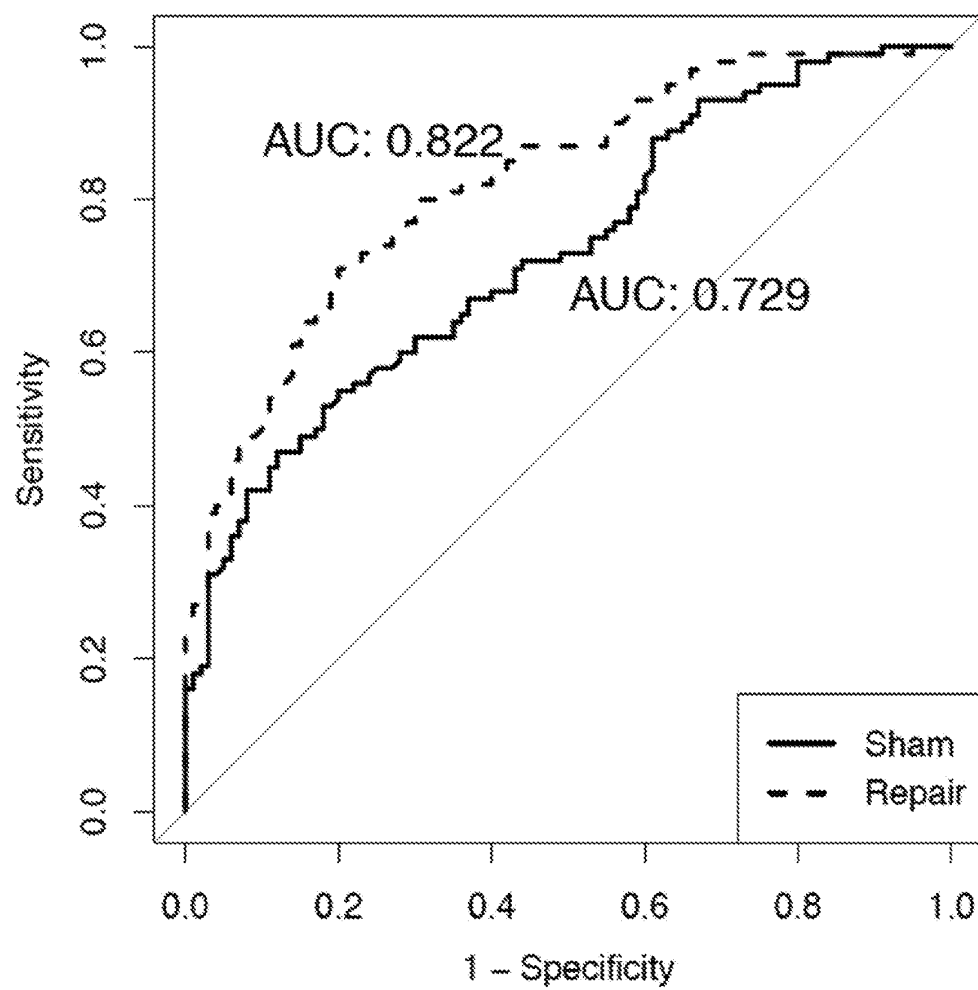


FIG. 16

**FIG. 17**

	Sample no.	SLEDAI	Anti-dsDNA antibody level (IU/mL)	Total DNA amount (ng) from 4 mL plasma
Inactive	S113	0	0	9.73
	S117	2	0	16.8
Active	S312	8	>1000	2.3
	S494	8	>1000	3.1

FIG. 18

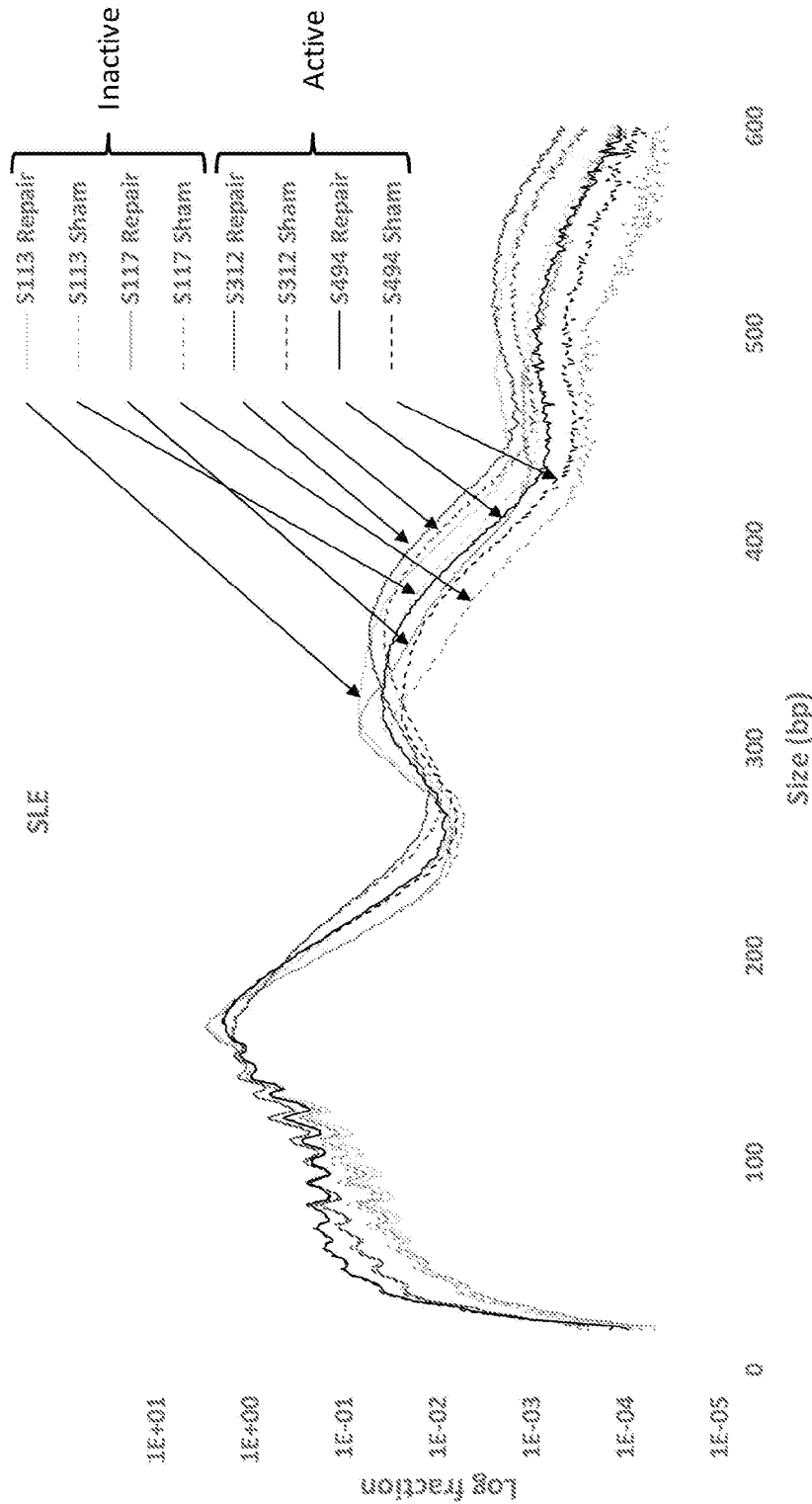


FIG. 19

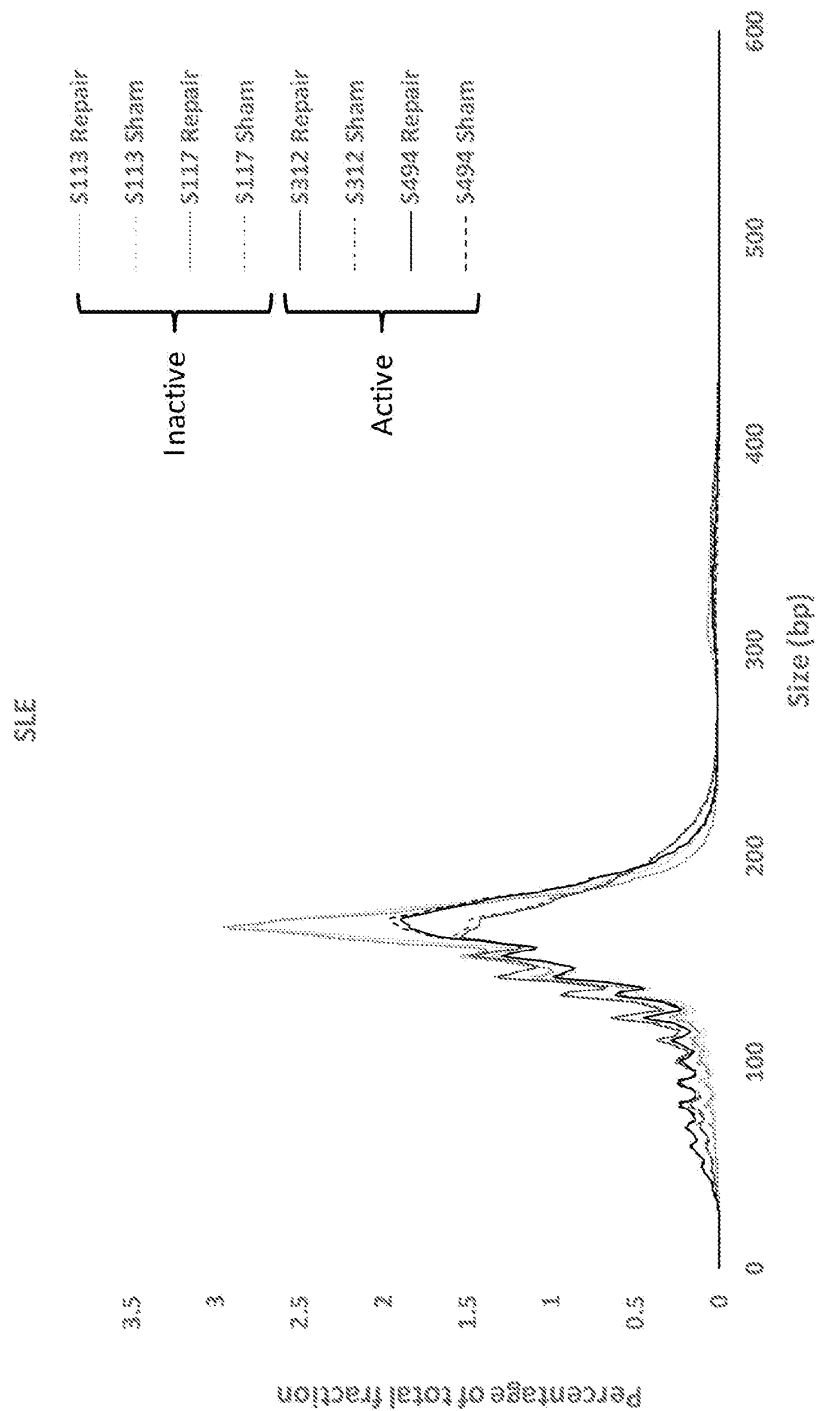


FIG. 20

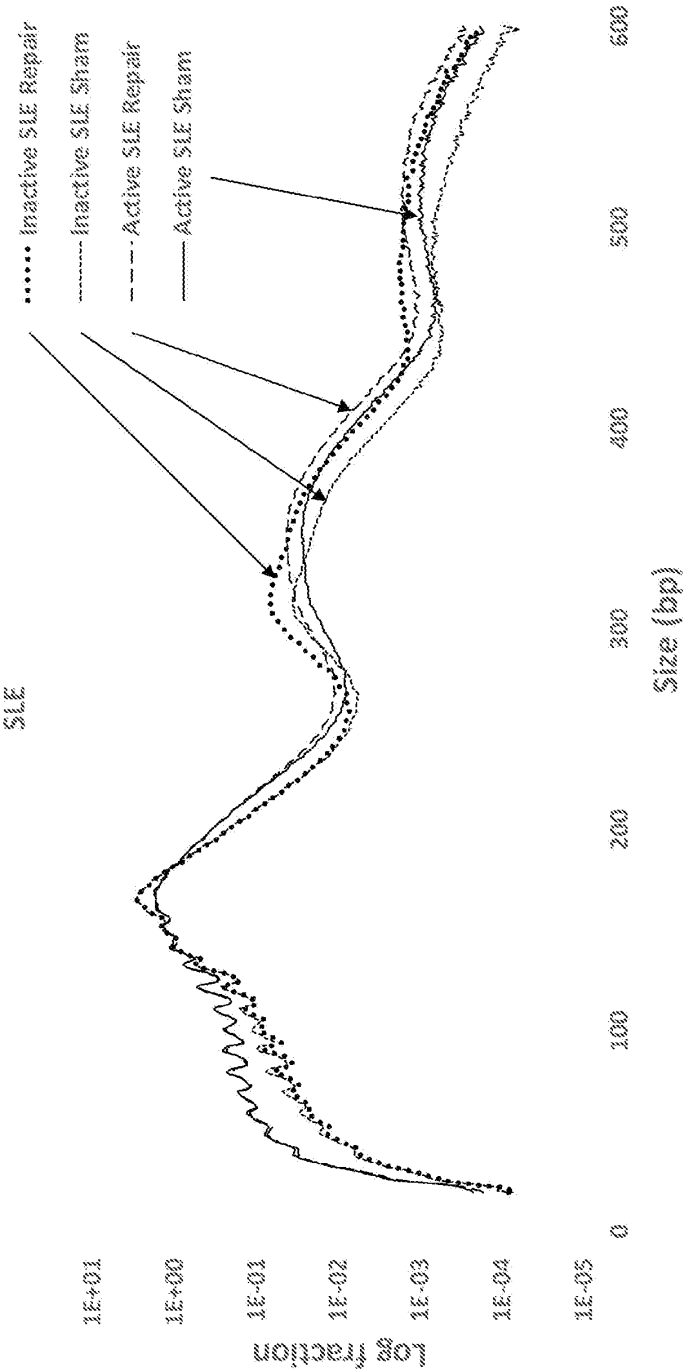


FIG. 21A

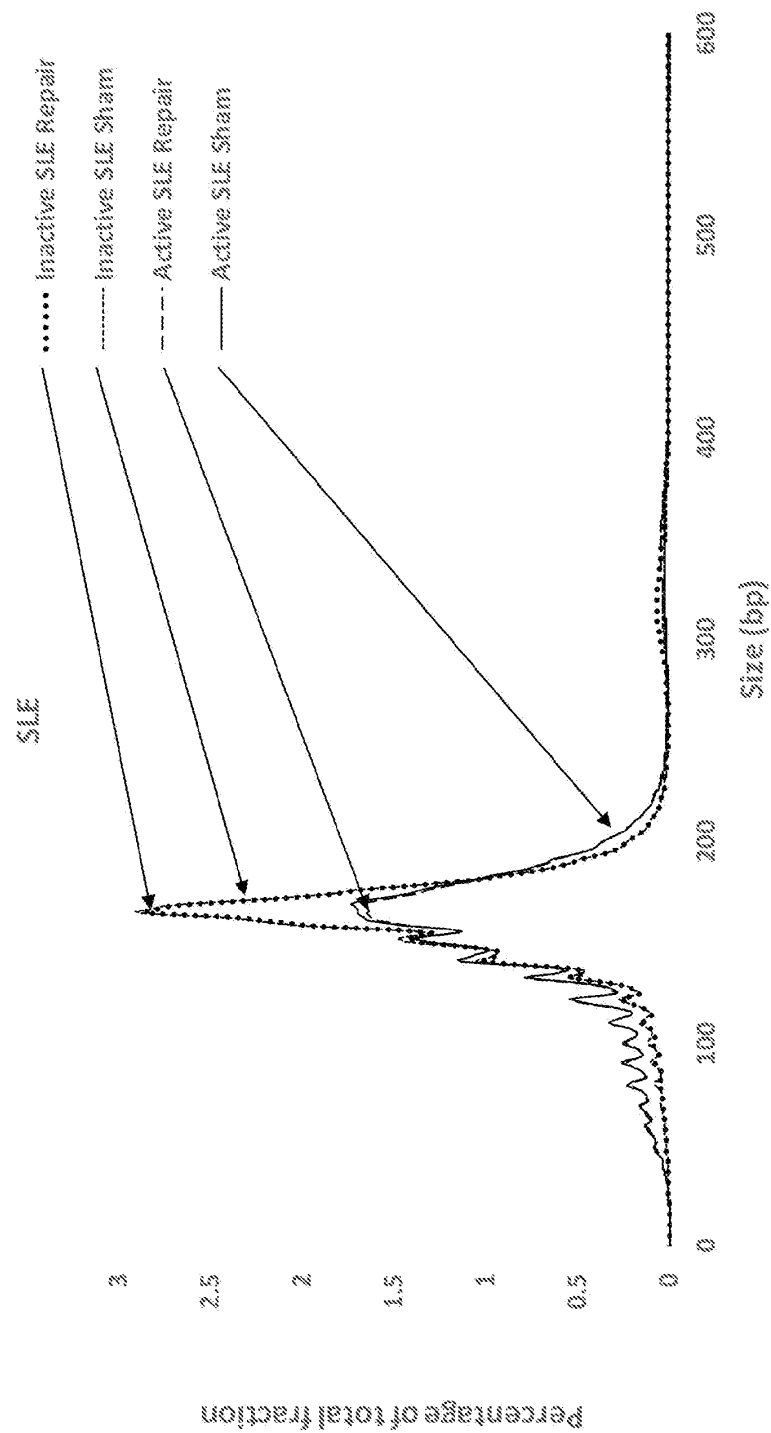


FIG. 21B

Size range	Sham to Repair percentage change				Repair			
	Inactive SLE		Active SLE		Inactive SLE		Active SLE	
	S113	S117	S312	S494	S113	S117	S312	S494
Short (0-250 bp)	96.6% to 94.2% (-2.5%)	98.2% to 96.1% (-2.1%)	96.4% to 94.9% (-1.6%)	98.0% to 96.7% (-1.3%)	94.2%	96.1%	94.9%	96.7%
	3.4% to 5.8% (70.6%)	1.8% to 3.9% (116.7%)	3.6% to 5.1% (41.7%)	2.0% to 3.3% (65%)	5.8%	3.9%	5.1%	3.3%
0-115 bp	3.5% to 3.1% (-11.4%)	5.1% to 4.2% (-17.6%)	10.8% to 10.3% (-4.6%)	12.7% to 12.2% (-3.9%)	3.1%	4.2%	10.3%	12.2%
>200 bp	7.1% to 9.4% (32.4%)	3.6% to 5.8% (61.1%)	9.7% to 11.4% (17.5%)	5.8% to 7.3% (25.9%)	9.4%	5.8%	11.4%	7.3%
120-130 bp	2.1% to 2.1% (0.7%)	2.8% to 2.7% (-3.8%)	5.1% to 5.4% (4.5%)	3.5% to 3.6% (3.4%)	2.1%	2.7%	5.4%	3.6%

FIG. 22

Size range	Inactive SLE	Active SLE
Short (0-250 bp)	97.4% to 95.2% (-2.3%)	97.2% to 95.8% (-1.4%)
Long (>250 bp)	2.6% to 4.8% (88.0%)	2.8% to 4.2% (49.3%)
0-115 bp	4.3% to 3.7% (-14.5%)	11.8% to 11.3% (-4.3%)
>200 bp	5.4% to 7.6% (46.8%)	7.8% to 9.4% (21.7%)

FIG. 23

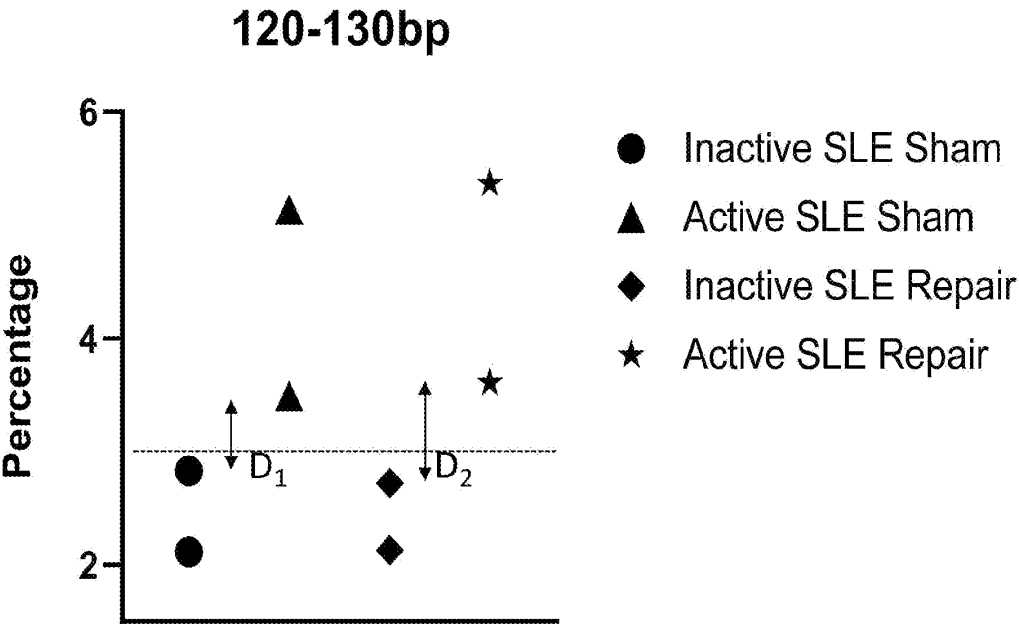


FIG. 24A

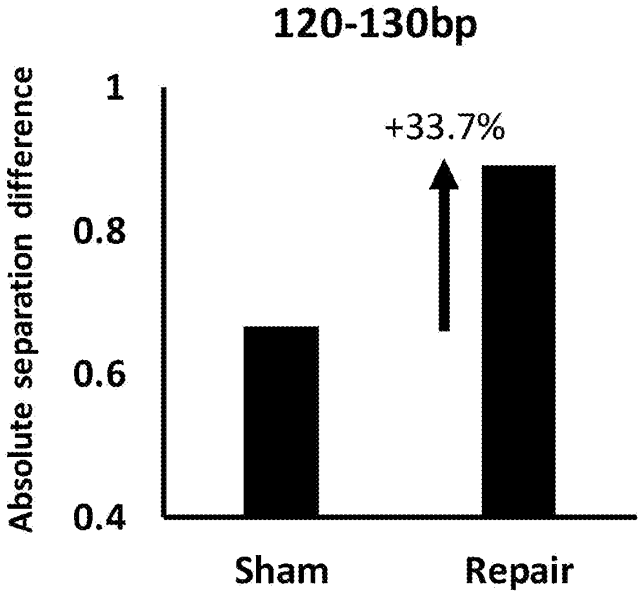


FIG. 24B

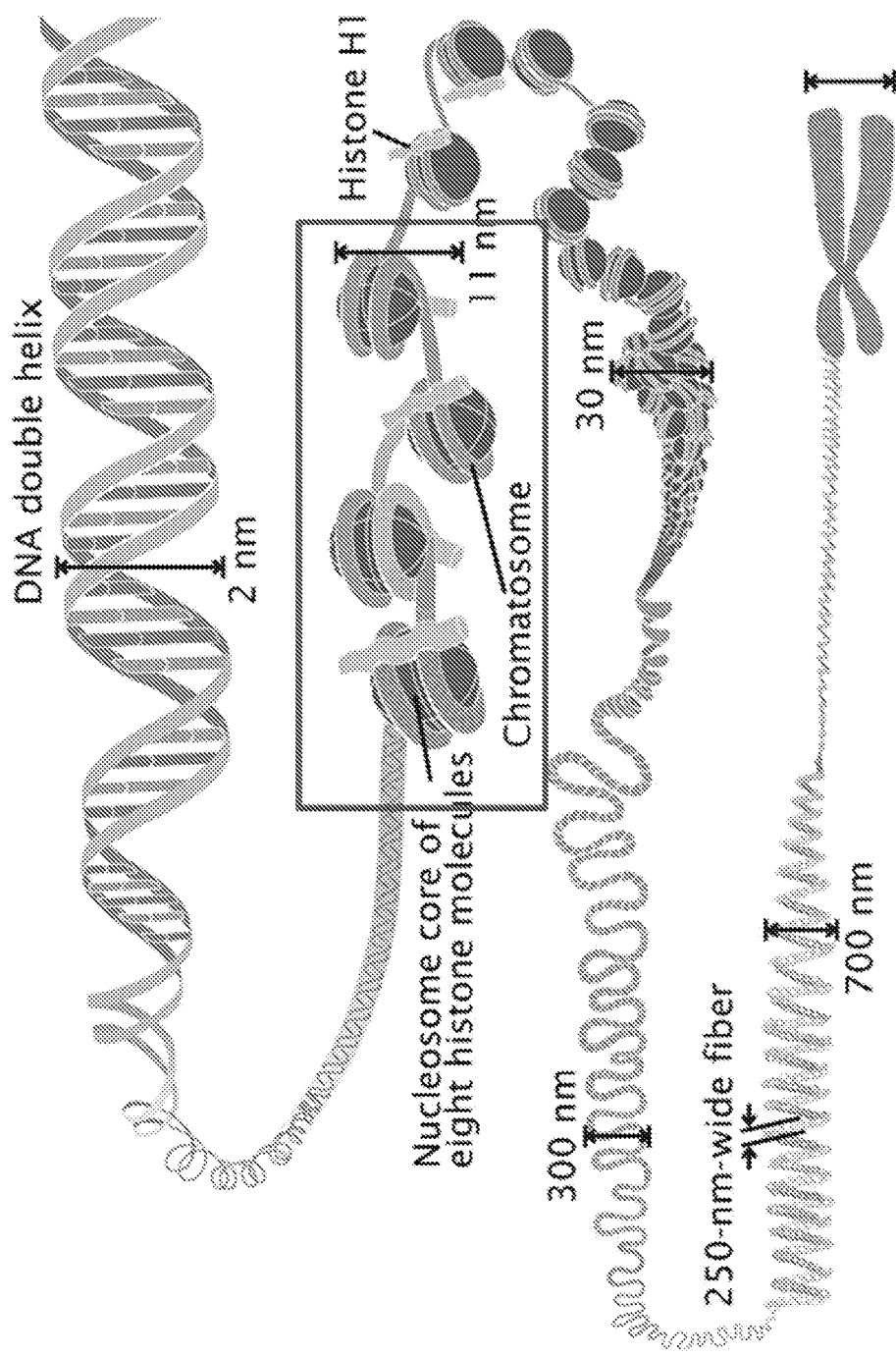


FIG. 25

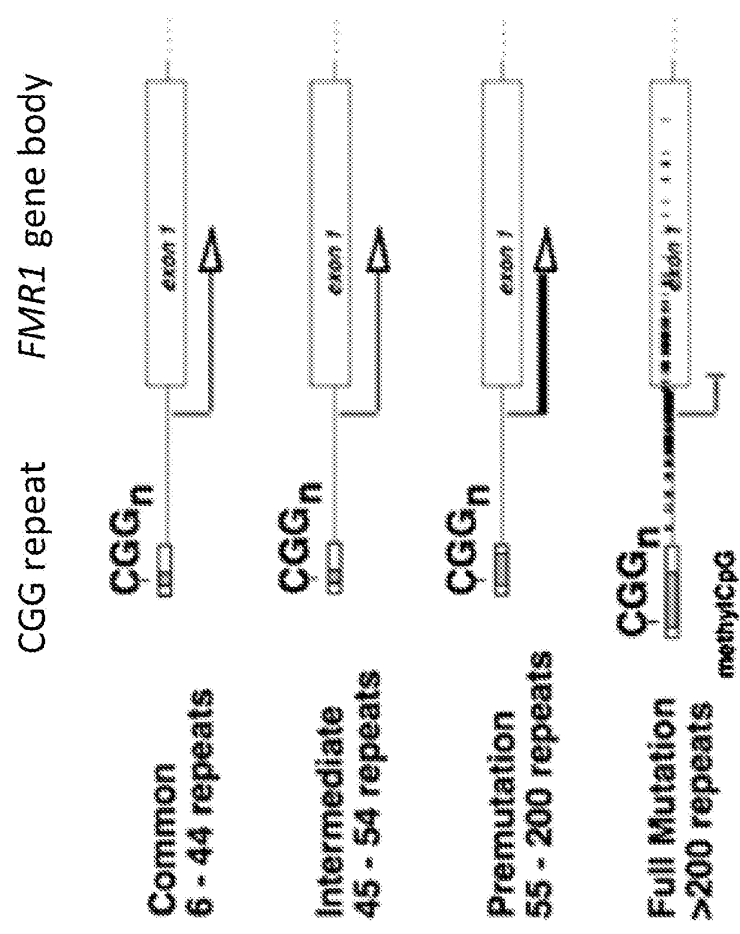
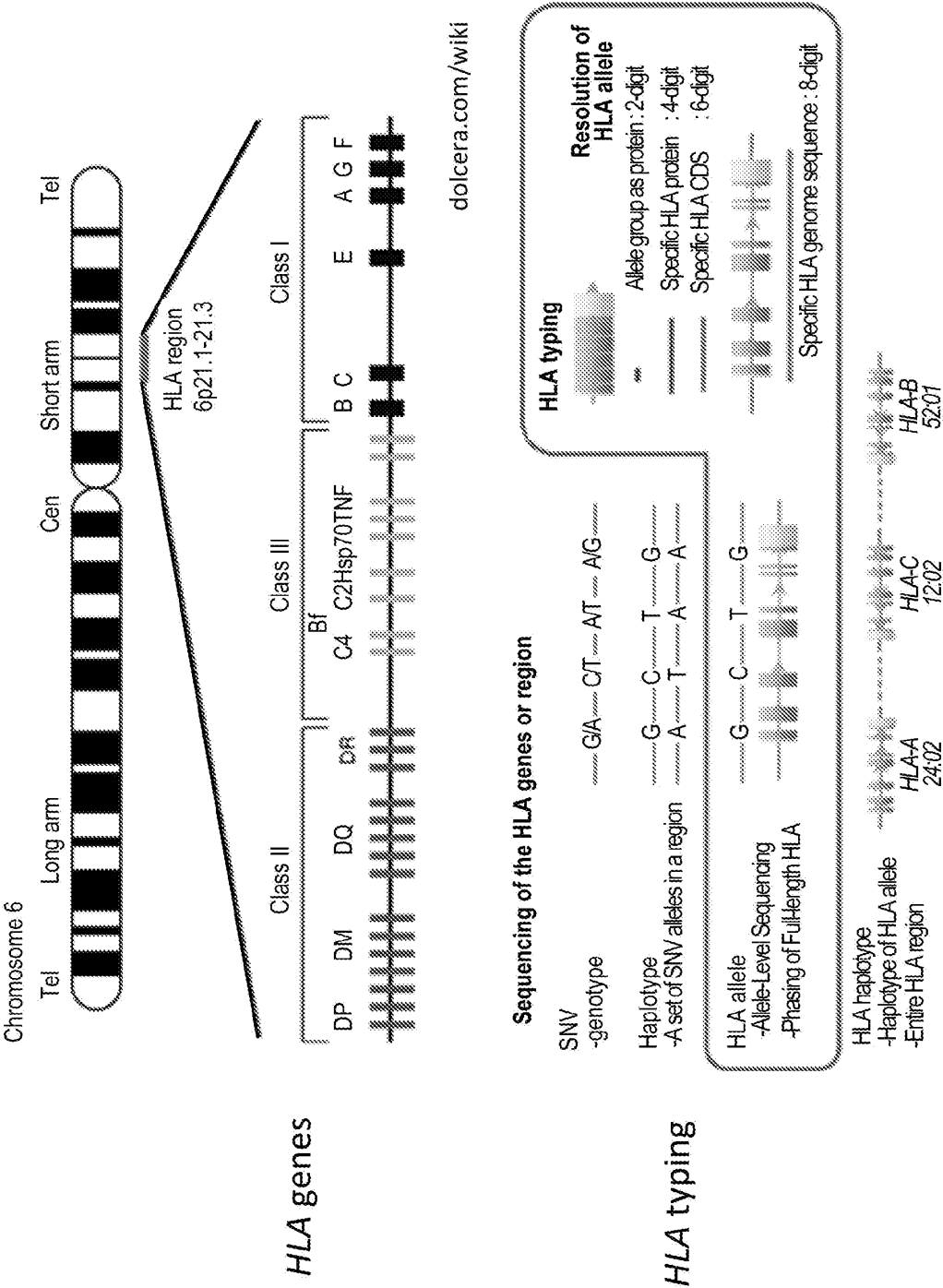


FIG. 26



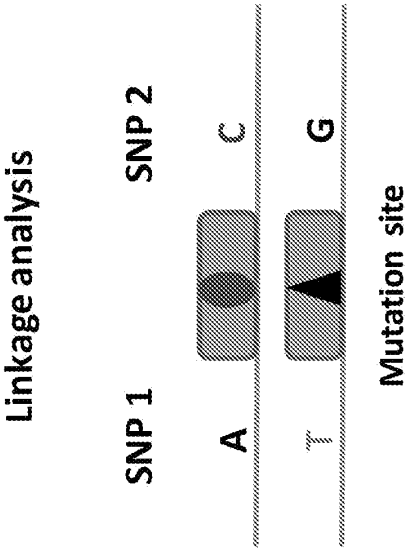
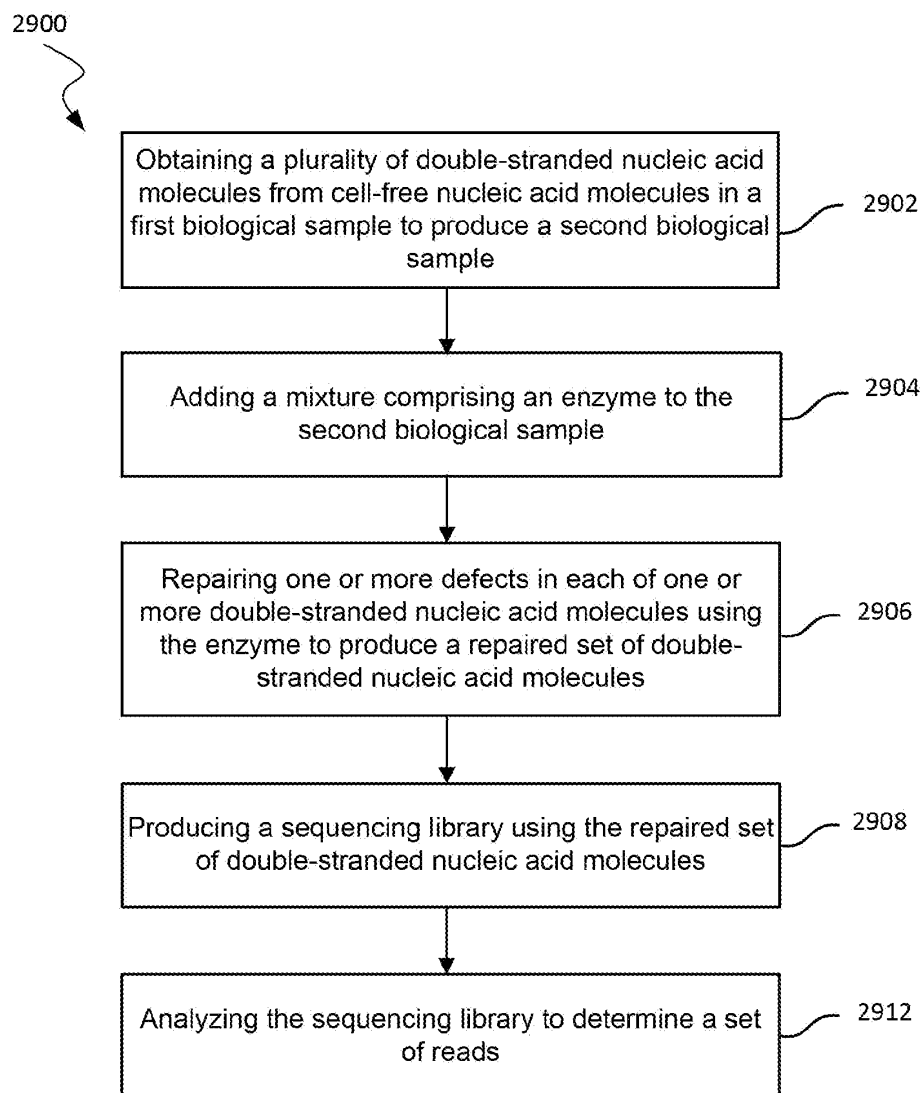


FIG. 28

**FIG. 29**

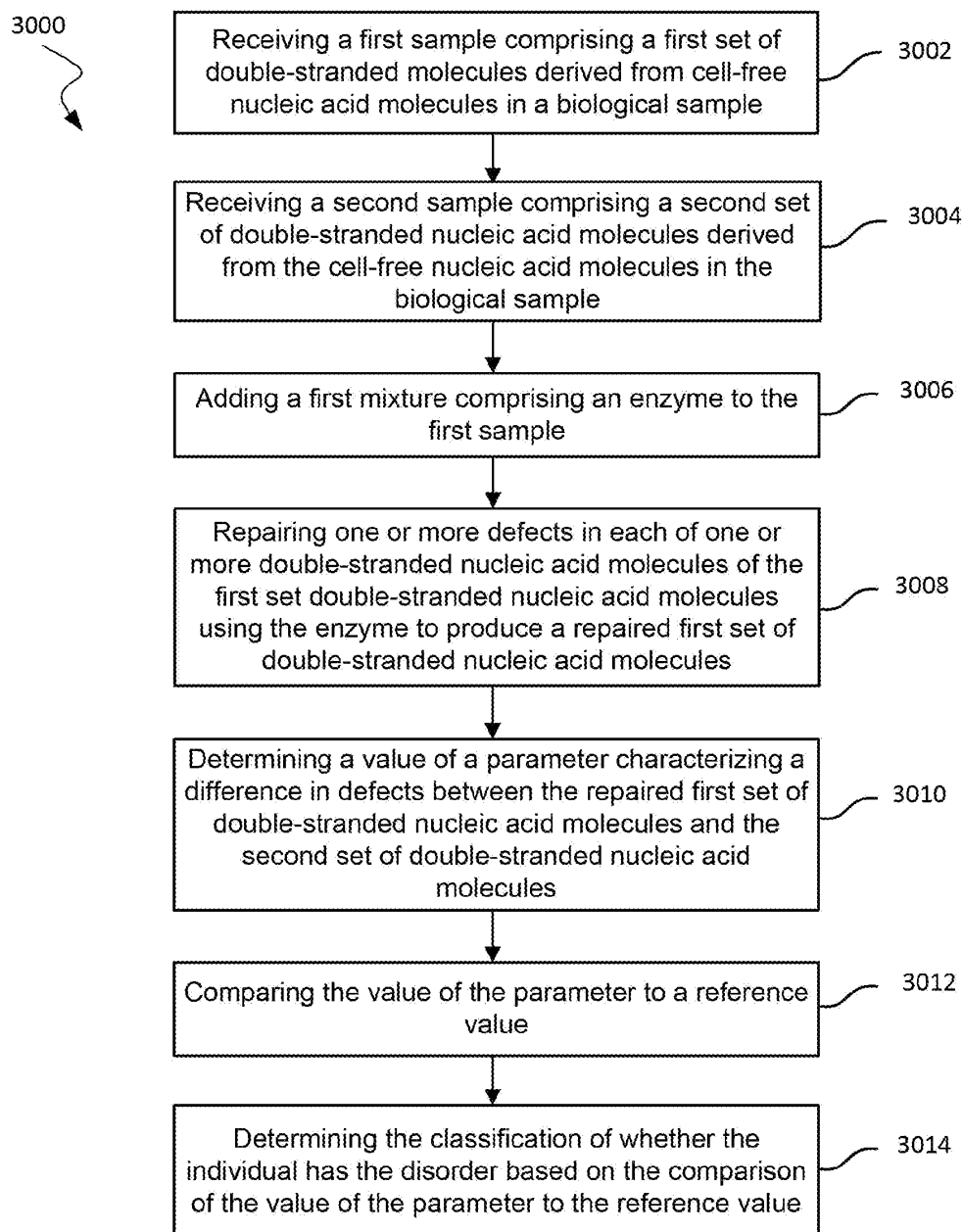


FIG. 30

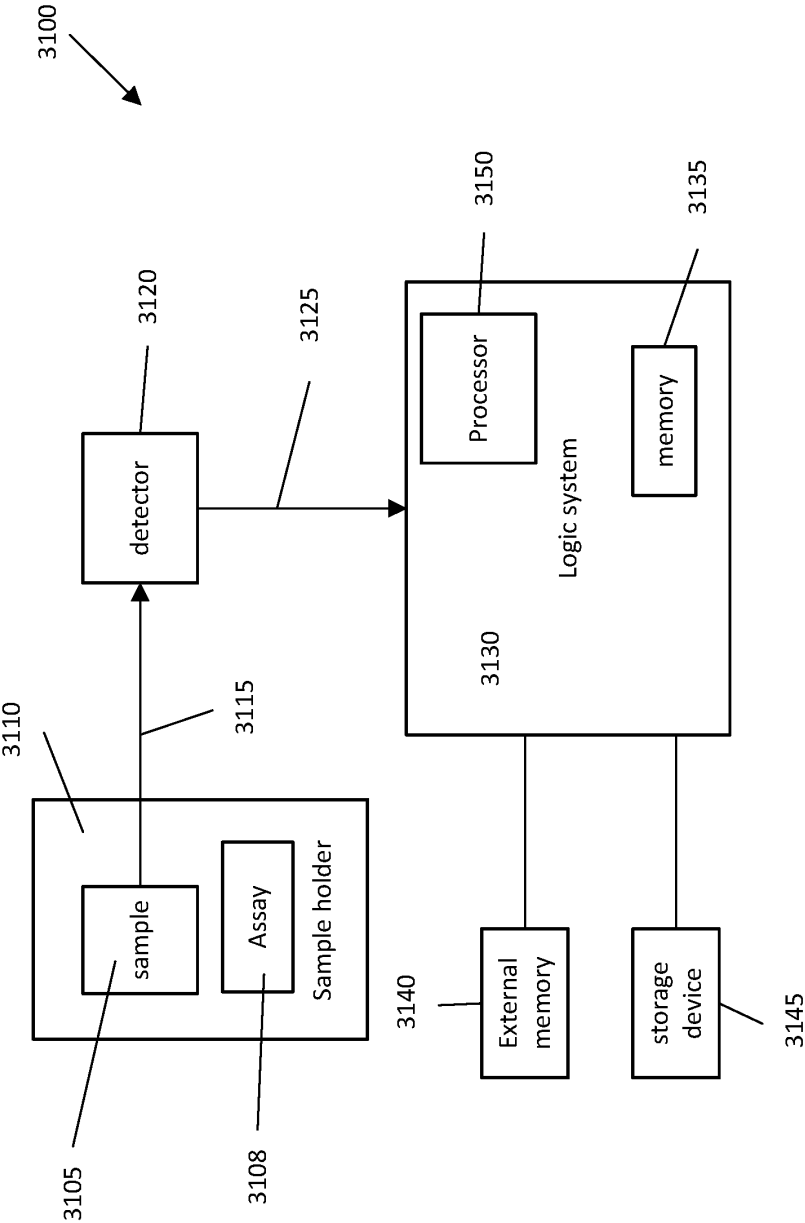


FIG. 31

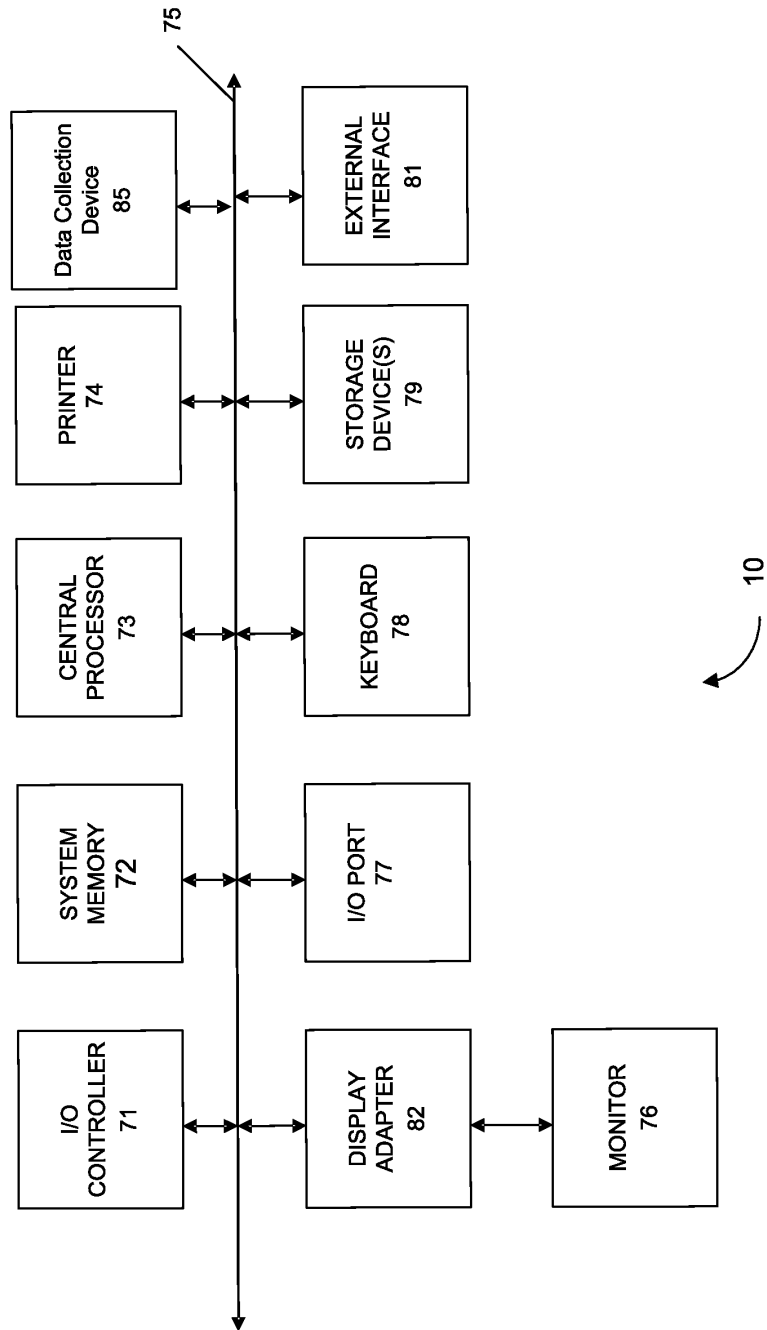


FIG. 32