

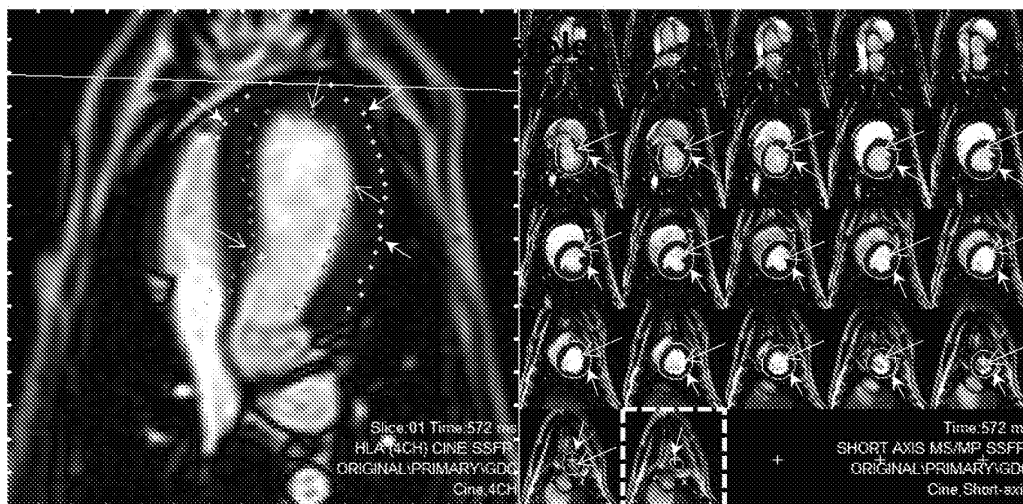


FIG. 1

Calvin WnM3

Diastole

Time 1



Time 2

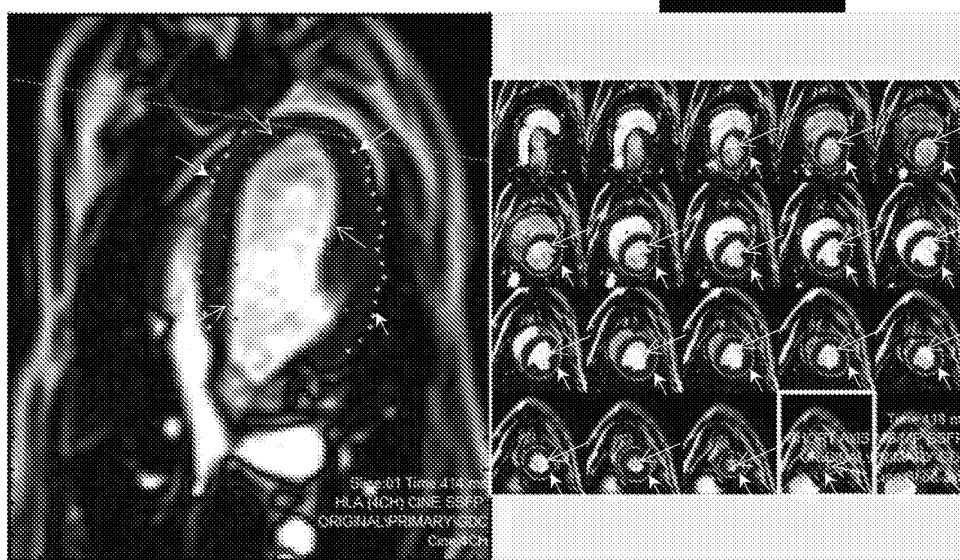


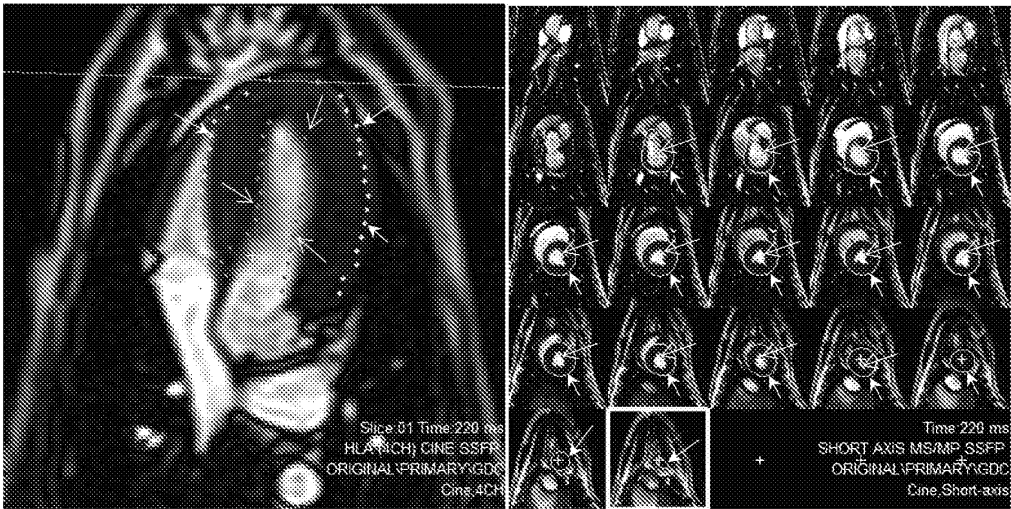
FIG. 2

SUBSTITUTE SHEET (RULE 26)

Calvin WnM3

Systole

Time 1



Time 2

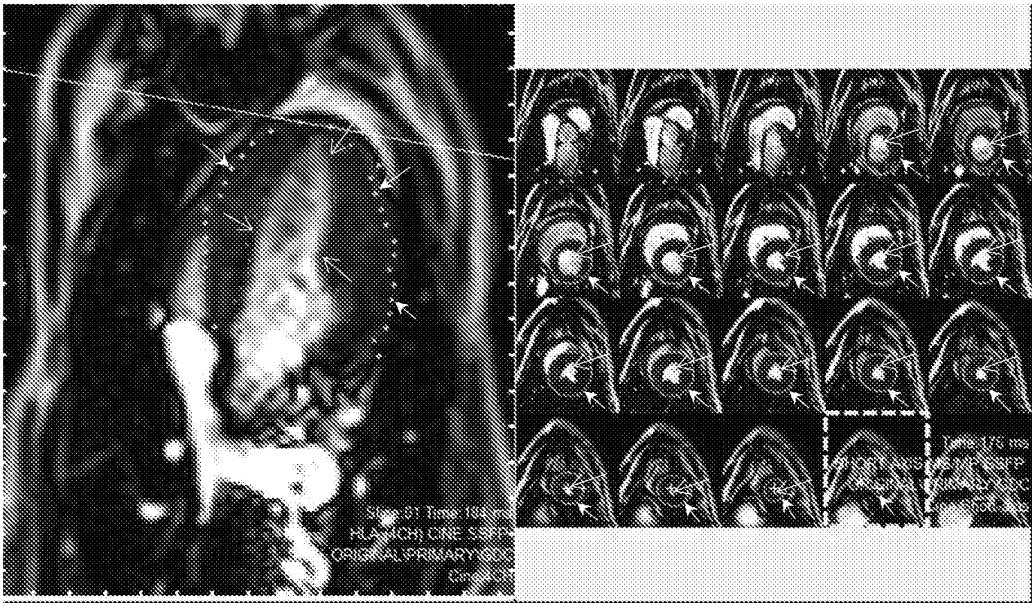


FIG. 3

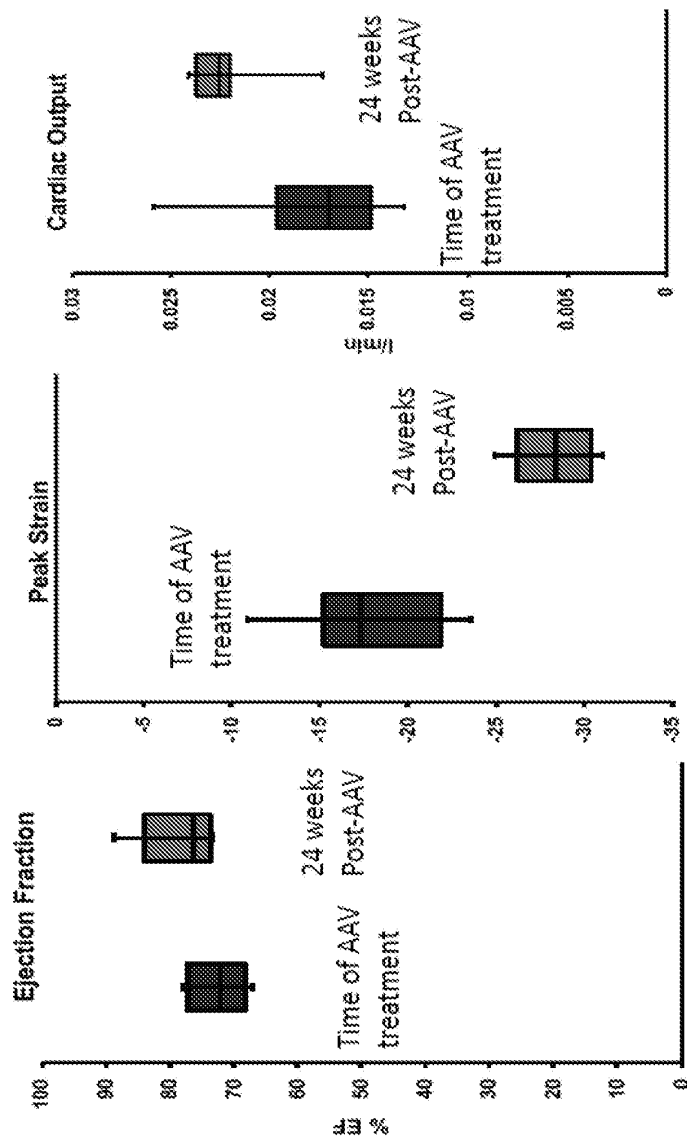


FIG. 4

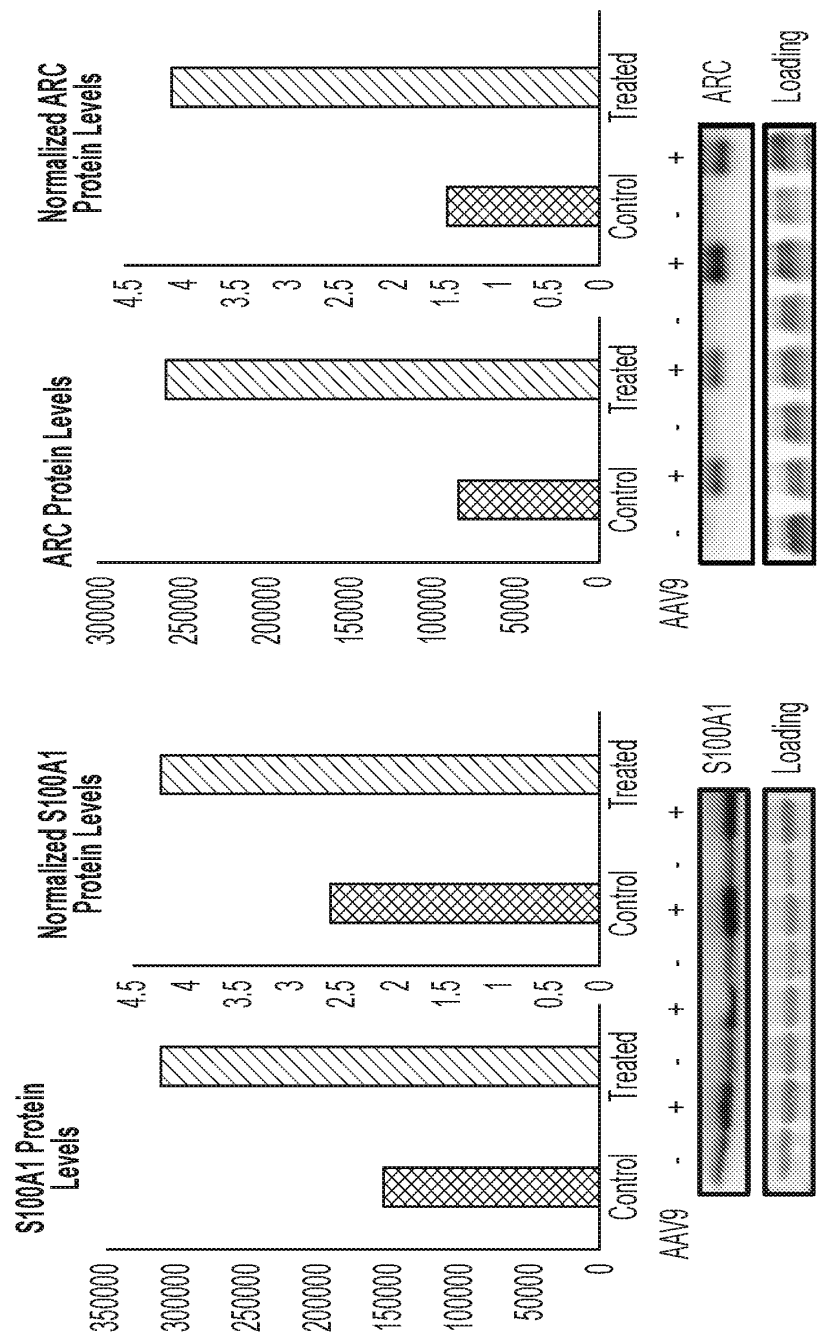


FIG. 5

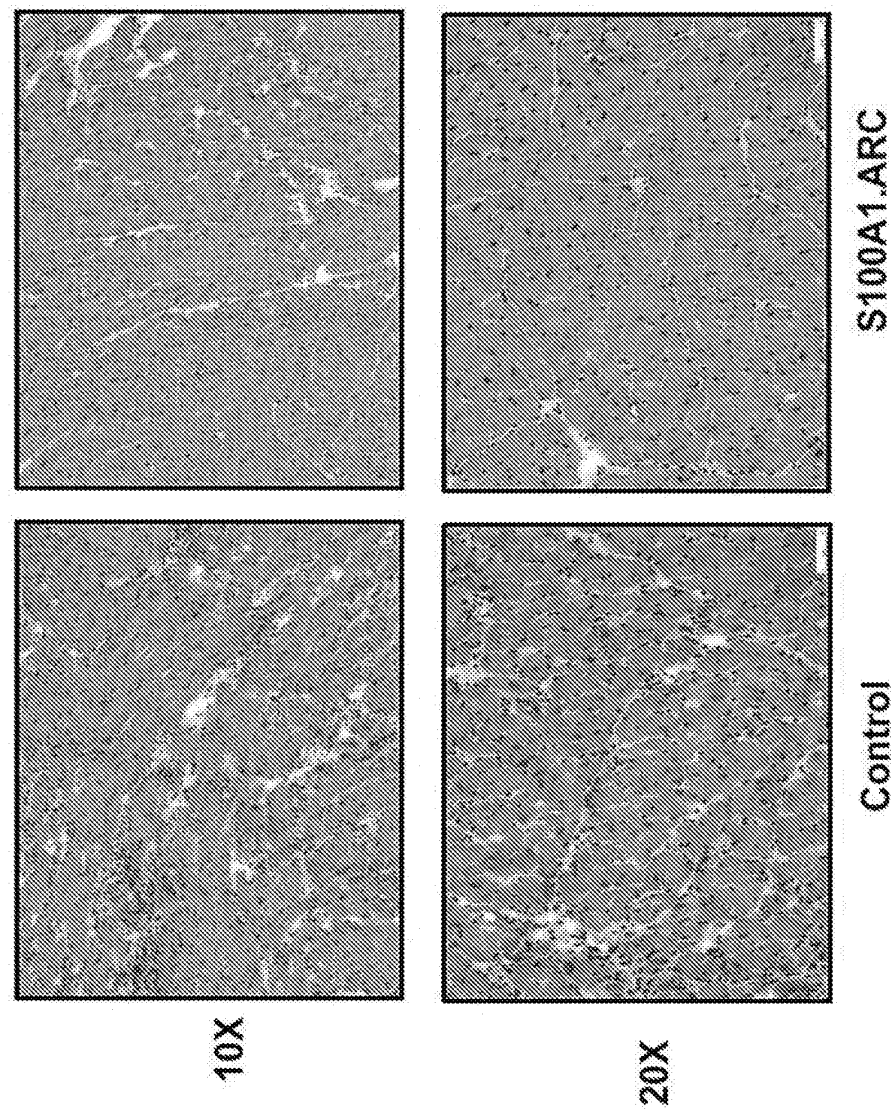


FIG. 6

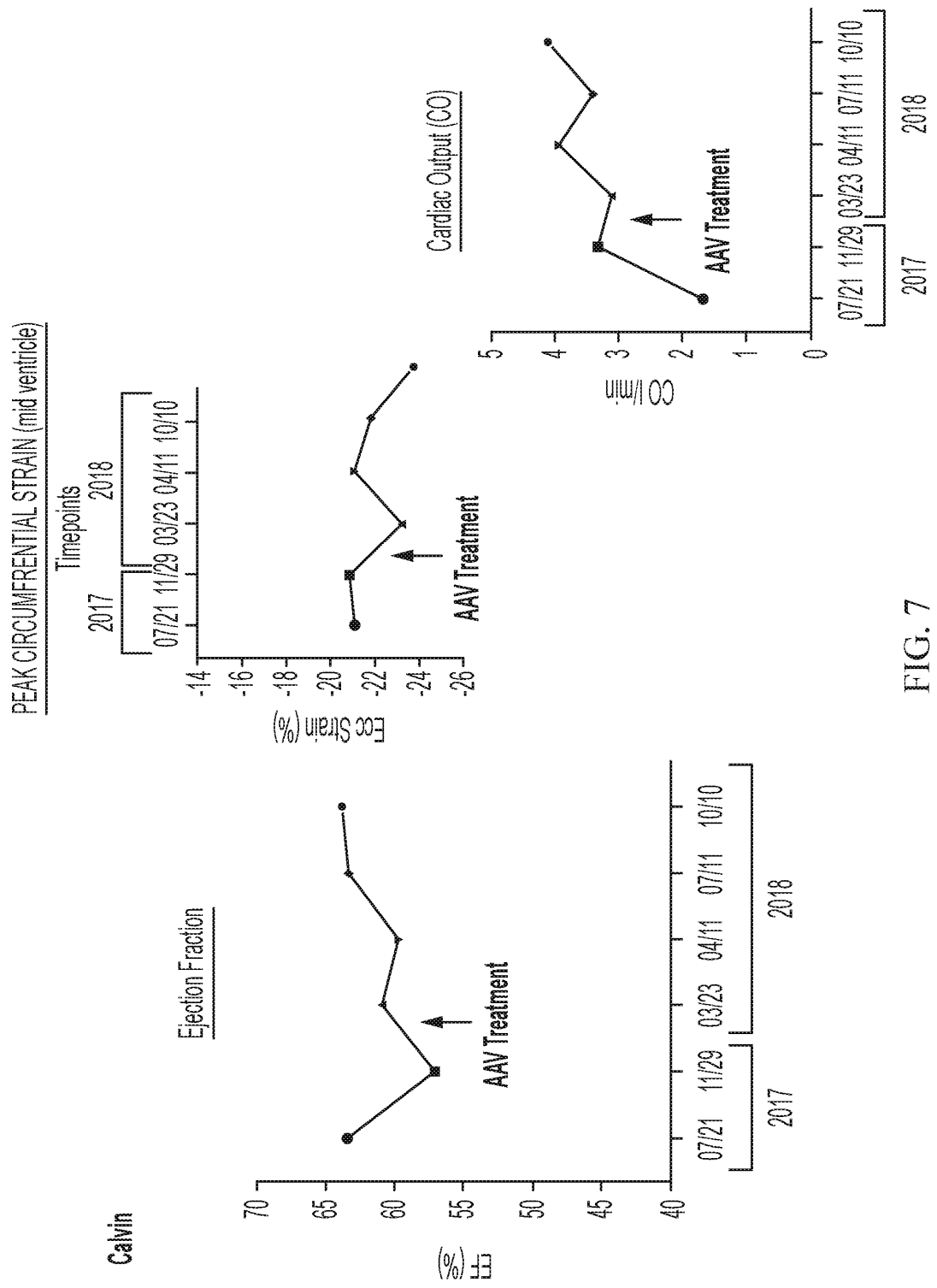


FIG. 7

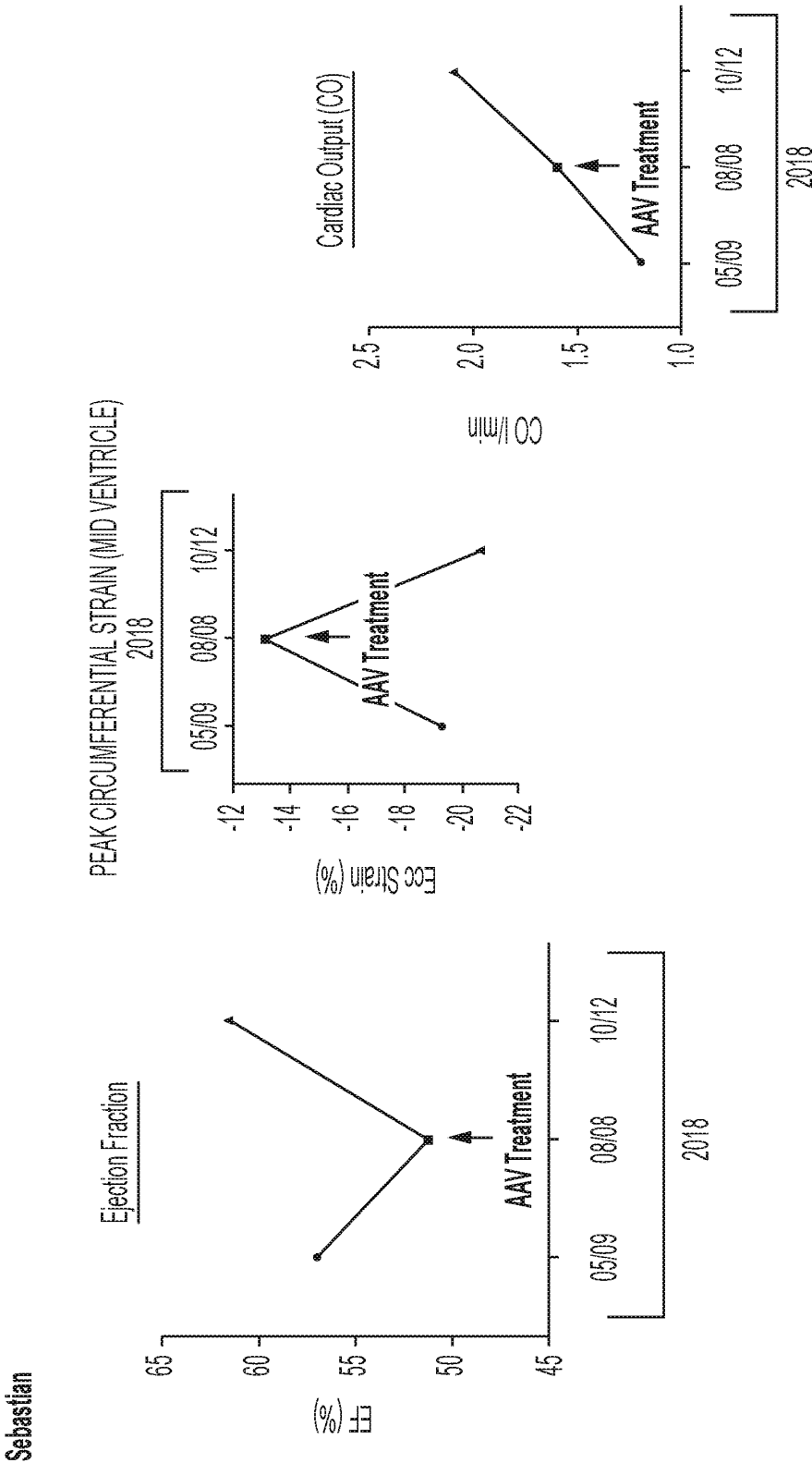


FIG. 8

Area both legs

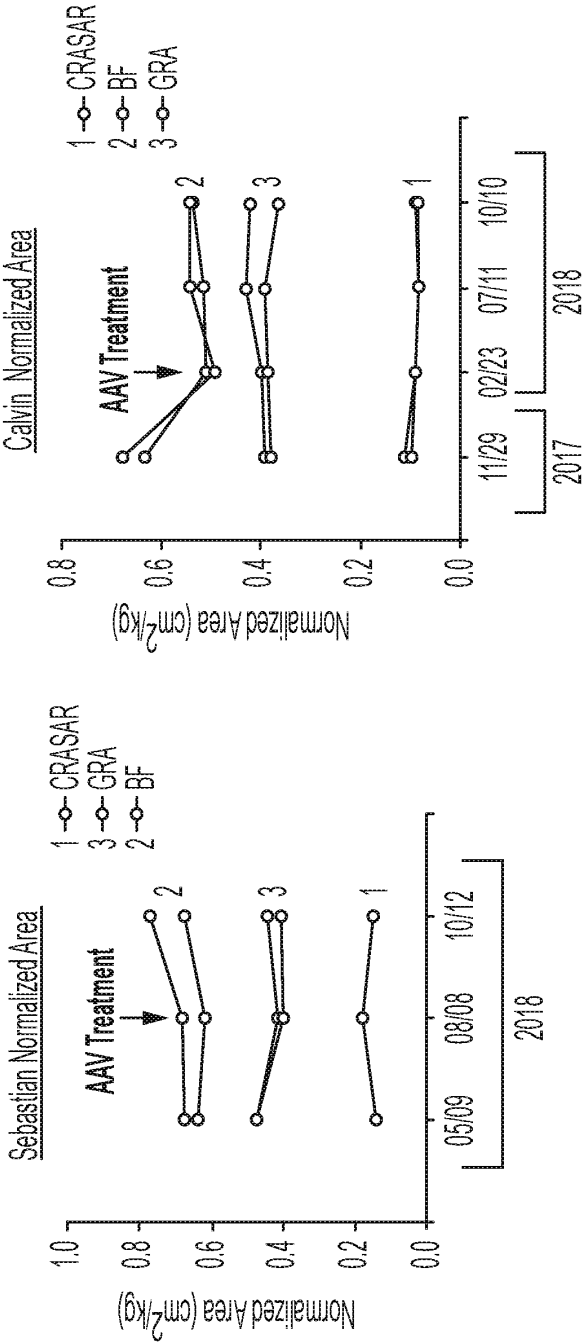


FIG. 9A

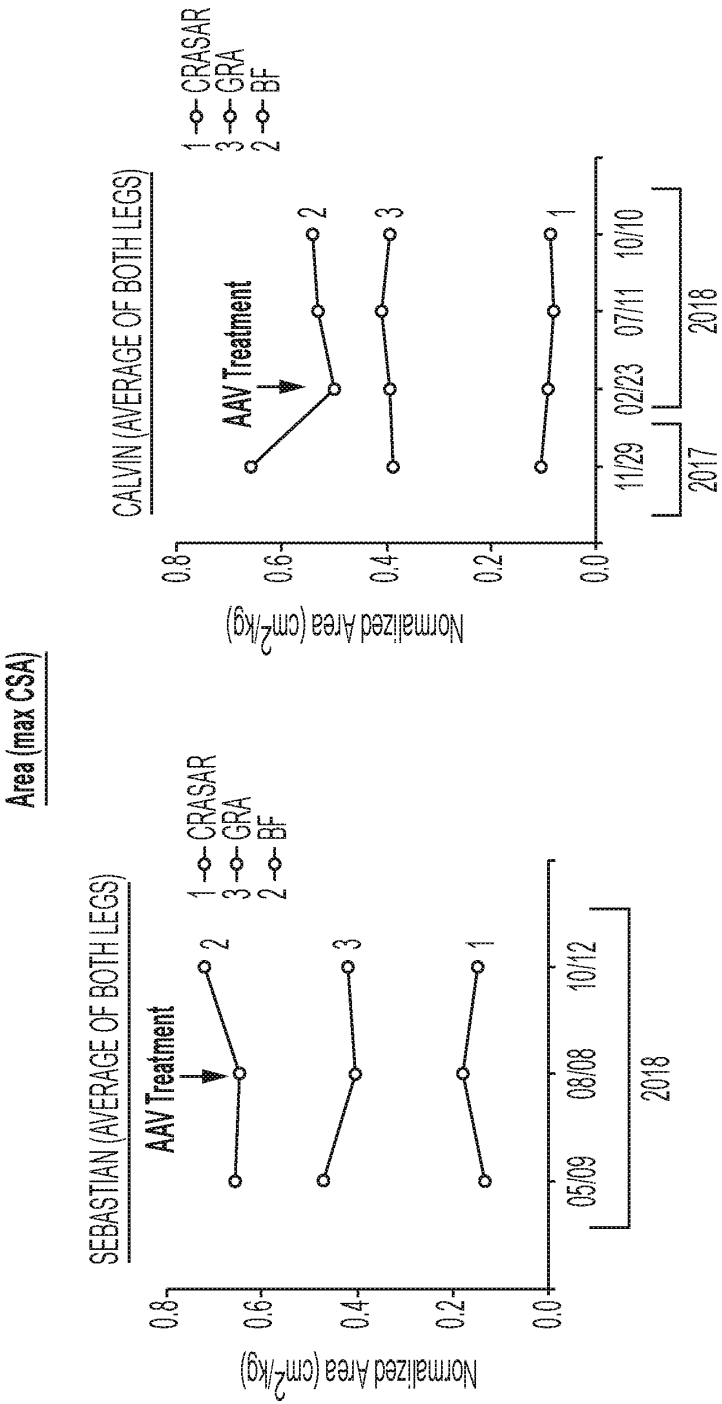


FIG. 9B

Volume both legs

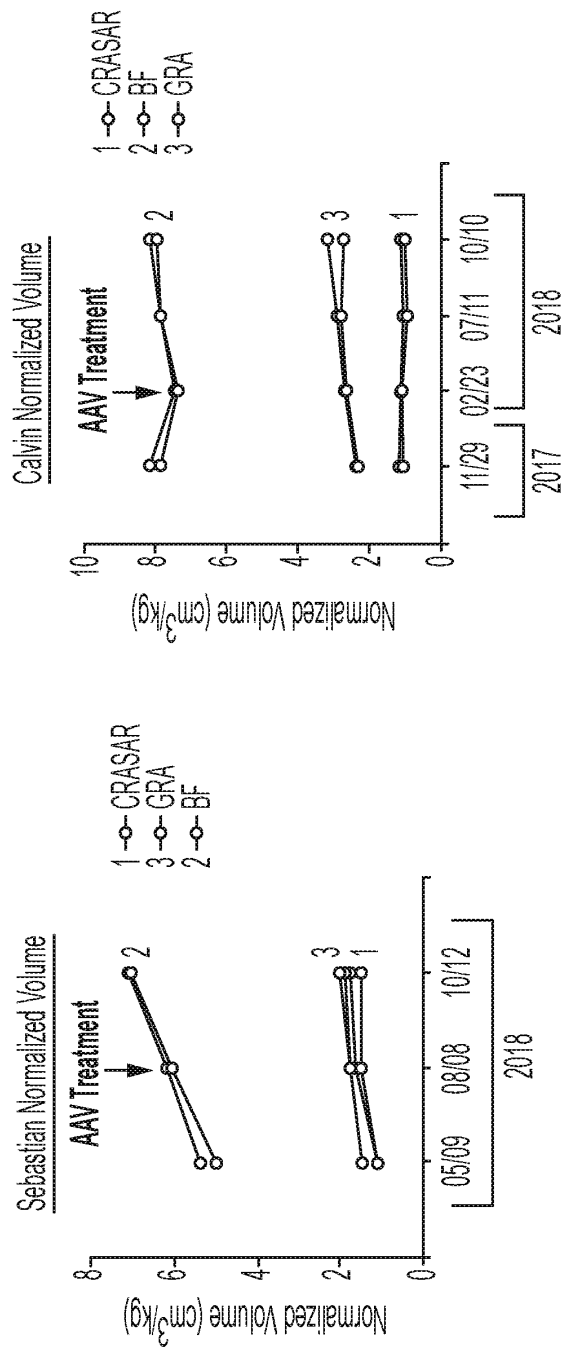


FIG. 9C

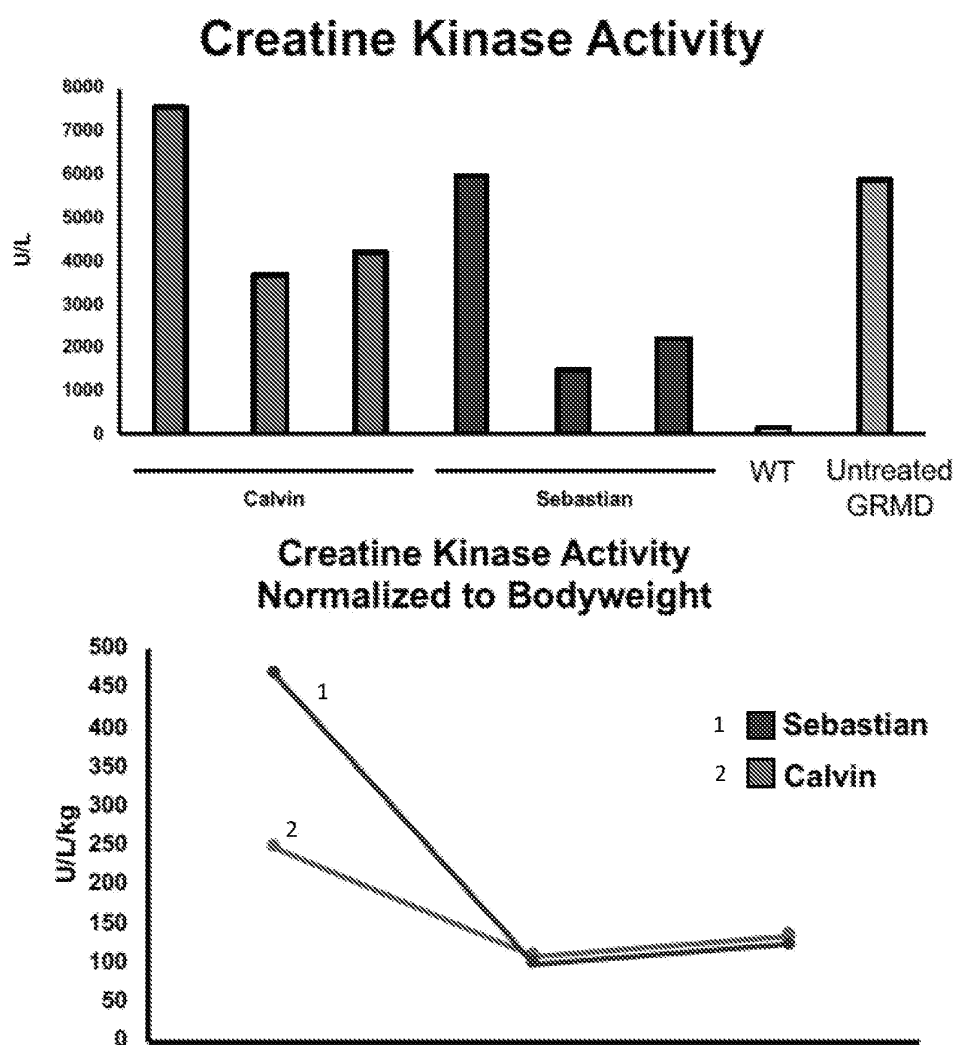


FIG. 10

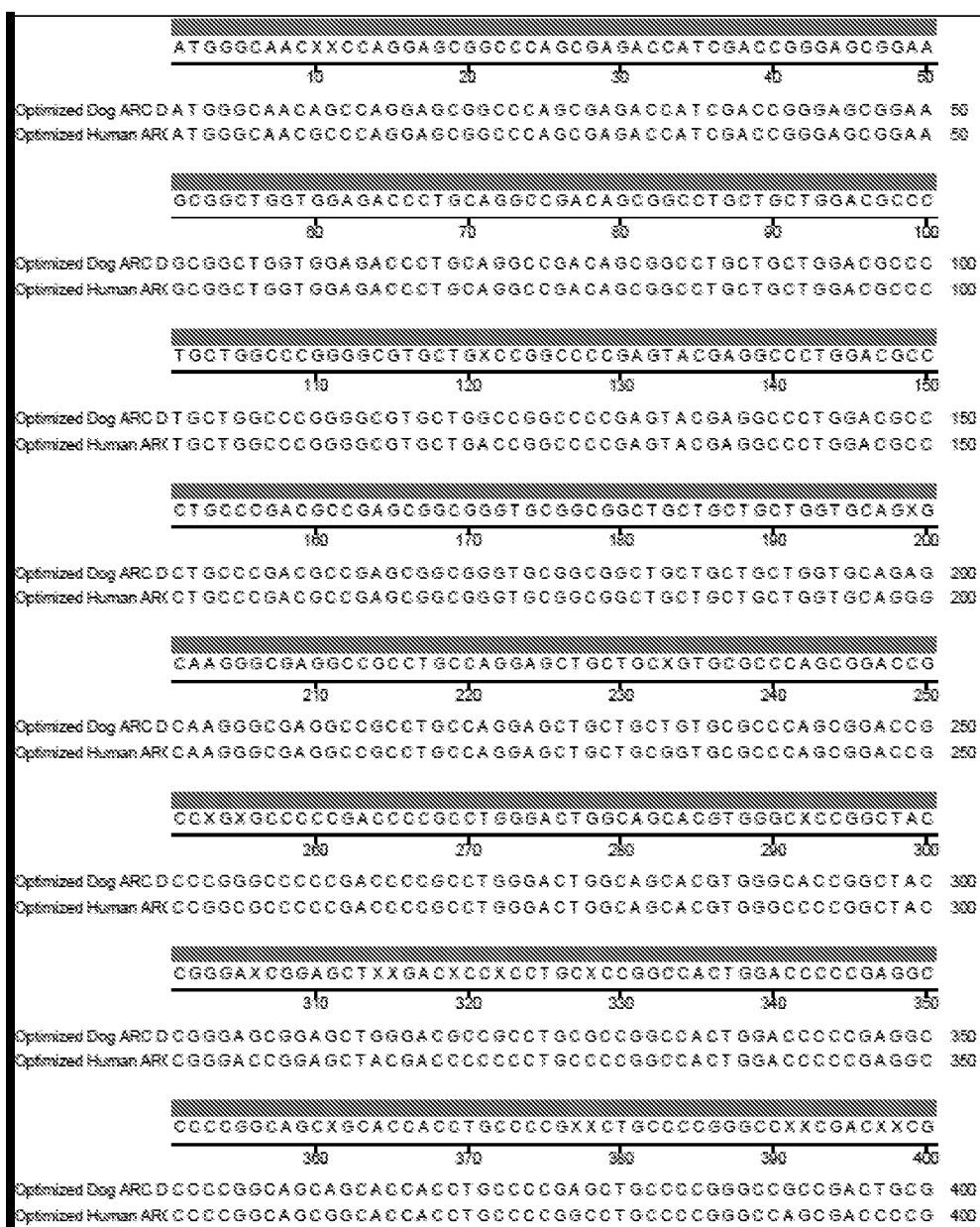


FIG. 11

	XCGAGXCCGGCGXCCCGCXGGCAGCGAGGCCCGXXCAGAGCGGCAXCCXX	
	410 420 430 440 450	
Optimized Dog ARC	DGGAGGCCCGGCGCCCCGGCGGCGAGAGGCCCGCCAGAGCGGCAGCCTG	450
Optimized Human ARK	ACGAGGCCCGGCGGCCCGAGGGCAGCGAGGCCCGTGCAGAGCGGCACCCCC	450
	GAGGAGGCCCGAXCCCGAGCTGGAGGCCCGXXGCCXXXXXXXXXXXXXGAGCX	
	460 470 480 490 500	
Optimized Dog ARC	DGAGGAGGCCCGAGCCCGAGCTGGAGGCCCGGCGCC-----GAGCT	498
Optimized Human ARK	GAGGAGGCCCGAGCCCGAGCTGGAGGCCCGAGGCCAGCAAGGAGGCCCGAGCC	500
	XGAGXXCGAGCCCGAGXXGAXCTGGAGGCCCGAGXCCGAGGCCCGAGCCCG	
	510 520 530 540 550	
Optimized Dog ARC	DGGAGAGCGAGCCCCAGATGGACCTGGAGGCCCGAGCCCGAGGCCCGAGCCCG	538
Optimized Human ARK	CGAGGCCCGAGCCCGAGCCCGAGCTGGAGGCCCGAGGCCCGAGGCCCGAGCCCG	550
	AGCCCGAGCTGGAGCCXXGAGCCCGAXCCCGAGCCCGAGCCCGAGCTXGAG	
	560 570 580 590 600	
Optimized Dog ARC	DAGCCCGAGCTGGAGCGGGAGCCCGAGCCCGAGCCCGAGCCCGAGCTGGAG	588
Optimized Human ARK	AGCCCGAGCTGGAGCCCGAGCCCGAGCCCGAGCCCGAGCCCGAGCTTCGAG	600
	GXXXGKGACGAGGCGAGGACAGCTGA	
	610 620	
Optimized Dog ARC	DGCCGSCGACGAGAGCGAGGACAGCTGA	615
Optimized Human ARK	GAGCGGACGAGAGCGAGGACAGCTGA	627

FIG. 11 (continued)

	ATGGGCAACGCGXCAGGAGCGGGCCXXXGAGACXATCGACCGXGAGCGGAA	
	10 20 30 40 50	
Native hARC DNA	ATGGGCAACGCGCAGGAGCGGGCCCTCAGAGACTATCGACCGGAGCGGAA	50
Optimized Human ARK	ATGGGCAACGCCCAGGAGCGGGCCACGAGACCATCGACCGGGAGCGGAA	50
	XCGXCTGGTXGAGACXCTGCAGGCXGACXXXGGXCTGCTGXTGGACGXC	
	60 70 80 90 100	
Native hARC DNA	ACGCTCTGGTGGAGACGCTGCAGGGCGGACTCGGGACTGCTGTTGGACGCGC	100
Optimized Human ARK	GCGGCTGGTGGAGACCCCTGCAGGGCGACAGCGGGCTGCTGCTGGACGCC	100
	TGCTGGCXCGGGGGCTGCTXACCGGXCCXGAGTACGAGGCXXTGGAXGCX	
	110 120 130 140 150	
Native hARC DNA	TGCTGGCGCGGGGGCTGCTCAACCGGGCCAGAGTACGAGGCATTGGATGCA	150
Optimized Human ARK	TGCTGGCGCGGGGGCTGCTGAACCGGGCCAGAGTACGAGGCCCTGGACGCC	150
	CTGCCXGAXGCCGAGCGXXGGGTGCGXCGXCTXCTGCTGCTGGTGCAGGG	
	160 170 180 190 200	
Native hARC DNA	CTGCCTGATGCCGAGCGCAGGGTGGCGCGGCTACTGCTGCTGGTGCAGGG	200
Optimized Human ARK	CTGCCCGACGCGCGAGCGCGGGGTGGCGCGGCTGCTGCTGCTGGTGCAGGG	200
	CAAGGGCGAGGGCGGCTGCCAGGAGCTGCTXCGXTGXGGCCAGCGXACCG	
	210 220 230 240 250	
Native hARC DNA	CAAGGGCGAGGGCGGCTGCCAGGAGCTGCTACGGCTGTGCCAGGGTACCG	250
Optimized Human ARK	CAAGGGCGAGGGCGGCTGCCAGGAGCTGCTGCGGTGGCGCCAGCGGACCG	250
	CXGGCGGCXCCXGACCCCGCXTGGGACTGGCAGCACGTGGGXCCXGGCTAC	
	260 270 280 290 300	
Native hARC DNA	CGGGCGCGCGGACCCCGCTTGGGACTGGCAGCACGTGGGTCCGGGCTAC	300
Optimized Human ARK	CGGGCGCGCGGACCCCGCTTGGGACTGGCAGCACGTGGGCCCGGGCTAC	300
	CGGACCGXAGCTAXGACCCXCCXTGCCCXGGCCACTGGACXCCXGAGGC	
	310 320 330 340 350	
Native hARC DNA	CGGACCGCAGCTATGACCCCTCCATGCCCAGGCCACTGGACGCCCGGAGGC	350
Optimized Human ARK	CGGACCGGAGCTACGACCCCGCTGCCCGGCCACTGGACCCCGGAGGC	350
	XCCCGGCXXXGGXACCACXTGCCCGGXXTGCCCXGGCXXXGACCCXG	
	360 370 380 390 400	
Native hARC DNA	ACCCGGCTCGGGGACCAACATGCCCGGGTTGCCCAGAGCTTCAGACCCTG	400
Optimized Human ARK	CCCGGCGAGCGGCACCAACTGCCCGGGCTGCCCGGGCCAGCGACCCCG	400

FIG. 12

	ACGAGGCCGGXGSCCCXGAGGGCCXCGAGGCCXGTGCAXXXCGSMACGCCX	
	410 420 430 440 450	
Native hARC DNA	ACGAGGCCGGGGGCCCTGAGGGCTCCGAGGCCGTGCAATCCGGGACCCCG	450
Optimized Human ARK	ACGAGGCCGGCGGCCCGAGGGCAGCGAGGCCGTGCAAGAGCGGCACCCCG	450
	GAGGAGCCXGAGCCXGAGCTGAXGCGXGAGGCCXXXAAXGAGGCCXGAXCC	
	460 470 480 490 500	
Native hARC DNA	GAGGAGCCAGAGCCAGAGCTGGAAGCTGAGGCCCTCTAAGAGGGCTGAACC	500
Optimized Human ARK	GAGGAGCCCGAGCCCGAGCTGGAAGCCGAGGCCAGCAAGGAGGCCGAGCC	500
	XGAGCCXGAGCCXGAGCCXGAGCTGGAAXCCCGAGGCCXGAXGCGXGAXCCXG	
	510 520 530 540 550	
Native hARC DNA	GGAGCCCGGAGCCAGAGCCAGAGCTGGAACCCGAGGGCTGAAGCAGAACCCAG	550
Optimized Human ARK	CGAGCCCGAGCCCGAGCCCGAGCTGGAAGCCGAGGCCGAGGCCGAGCCCG	550
	AGCCXGAXCTGGAGCCXGAXCCXGACCCXGAGCCCGAGCCCGACTTCGAG	
	560 570 580 590 600	
Native hARC DNA	AGCCCGAAGCTGGAGCCAGAACCCGAGCCCGAGGCCCGAGCCCGACTTCGAG	600
Optimized Human ARK	AGCCCGAGCTGGAGCCCGAGCCCGAGCCCGAGCCCGAGCCCGACTTCGAG	600
	GAXXGGGACGAGXCGAXGAXXXCTGA	
	610 620	
Native hARC DNA	GAAAGGGACGAGTCCGAAAGATTGCTGA	627
Optimized Human ARK	GAGCGGGACGAGAGCGAGGACAGCTGA	627

FIG. 12 (continued)

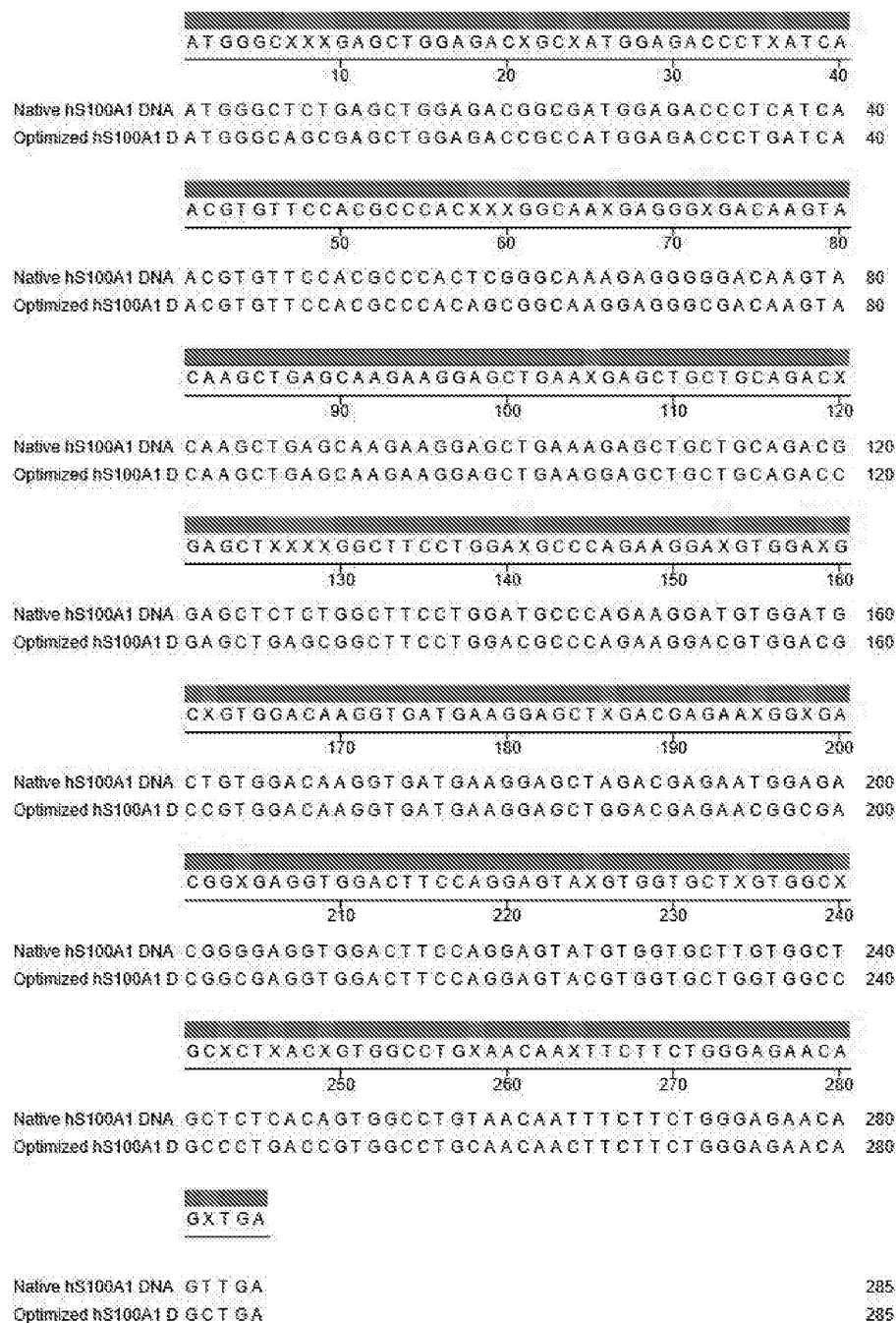


FIG. 13

		ATGGGCAGCGAGCTGGAGACCGCCATGGAGACCCTGATCA	
		10 20 30 40	
Optimized hS100A1 D	ATGGGCAGCGAGCTGGAGACCGCCATGGAGACCCTGATCA	40	
Optimized cS100A1 D	ATGGGCAGCGAGCTGGAGACCGCCATGGAGACCCTGATCA	40	
		ACGTGTTCCACGCCACAGCGGCAAGGAGGGCAXACAAGTA	
		50 60 70 80	
Optimized hS100A1 D	ACGTGTTCCACGCCACAGCGGCAAGGAGGGCGACAAGTA	80	
Optimized cS100A1 D	ACGTGTTCCACGCCACAGCGGCAAGGAGGGCAACAAGTA	80	
		CAAGCTGAGCAAGAAGGAGCTGAAGGAGCTGCTGCAGACC	
		90 100 110 120	
Optimized hS100A1 D	CAAGCTGAGCAAGAAGGAGCTGAAGGAGCTGCTGCAGACC	120	
Optimized cS100A1 D	CAAGCTGAGCAAGAAGGAGCTGAAGGAGCTGCTGCAGACC	120	
		GAGCTGAGCGGCTTCCTGGACGCCAGAAGGACGXGACG	
		130 140 150 160	
Optimized hS100A1 D	GAGCTGAGCGGCTTCCTGGACGCCAGAAGGACGTGGACG	160	
Optimized cS100A1 D	GAGCTGAGCGGCTTCCTGGACGCCAGAAGGACGCCGACG	160	
		CCGTGGACAAGGTGATGAAGGAGCTGGACGAGAACGGCGA	
		170 180 190 200	
Optimized hS100A1 D	CCGTGGACAAGGTGATGAAGGAGCTGGACGAGAACGGCGA	200	
Optimized cS100A1 D	CCGTGGACAAGGTGATGAAGGAGCTGGACGAGAACGGCGA	200	
		CGGCGAGGTGGACTTCCAGGAGTACGTGGTGGTGGCC	
		210 220 230 240	
Optimized hS100A1 D	CGGCGAGGTGGACTTCCAGGAGTACGTGGTGGTGGCC	240	
Optimized cS100A1 D	CGGCGAGGTGGACTTCCAGGAGTACGTGGTGGTGGCC	240	
		GCCCTGACCGTGGCCTGCAACAACCTTCTTCTGGGAGAACA	
		250 260 270 280	
Optimized hS100A1 D	GCCCTGACCGTGGCCTGCAACAACCTTCTTCTGGGAGAACA	280	
Optimized cS100A1 D	GCCCTGACCGTGGCCTGCAACAACCTTCTTCTGGGAGAACA	280	
		GCTGA	
Optimized hS100A1 D	GCTGA	285	
Optimized cS100A1 D	GCTGA	285	

FIG. 14

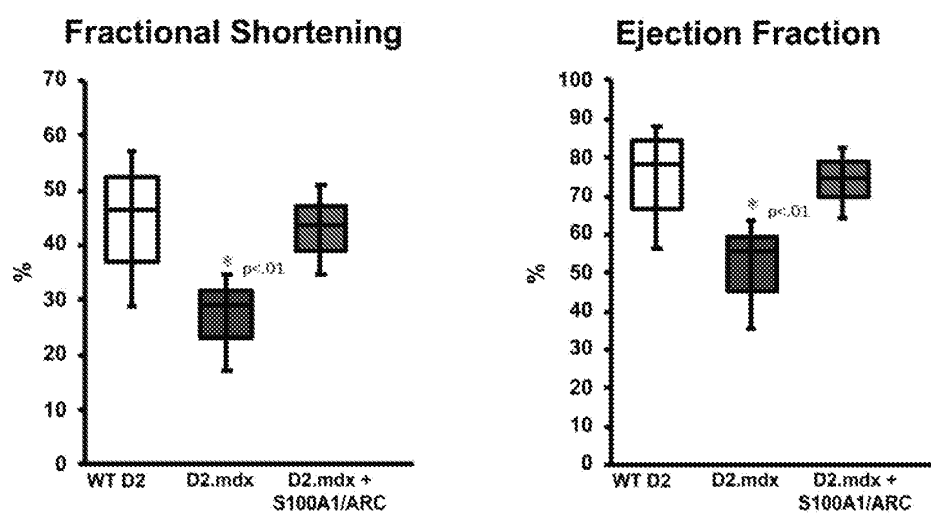


FIG. 15

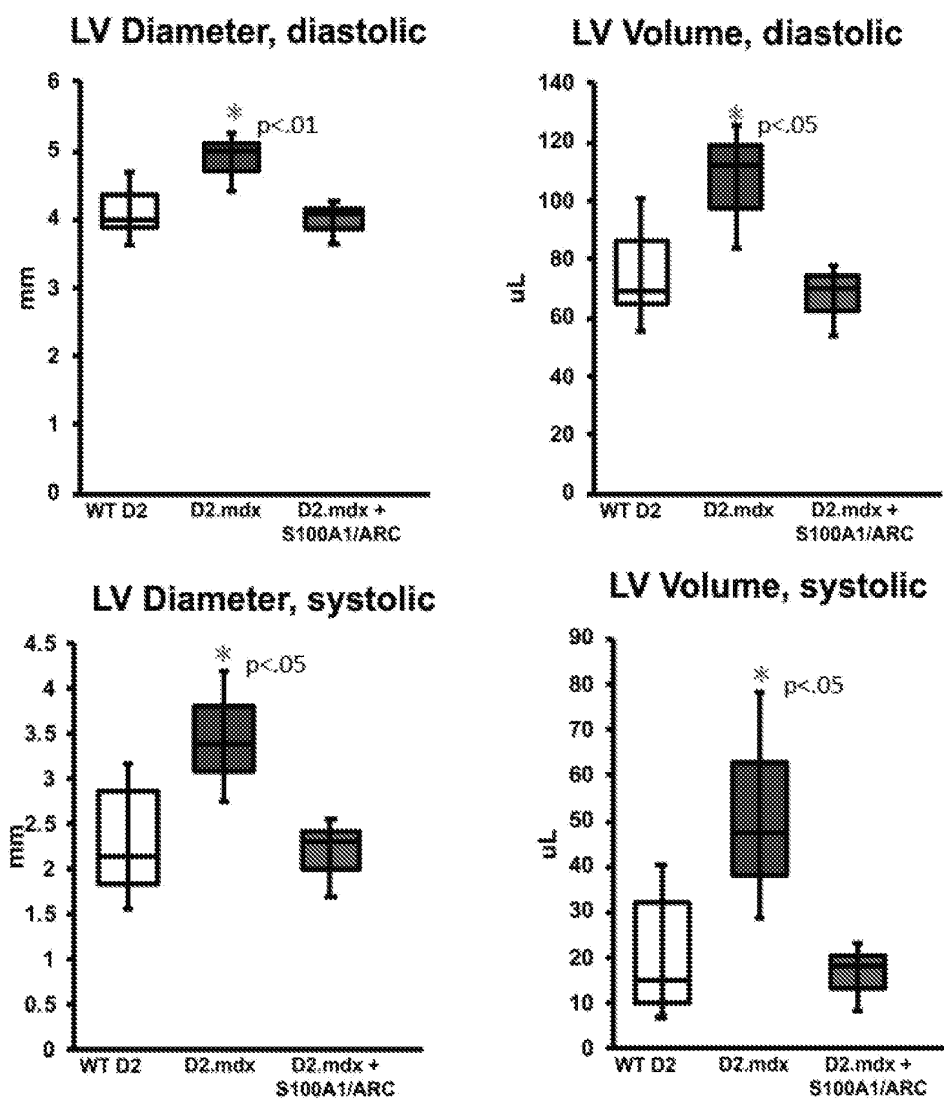


FIG. 16

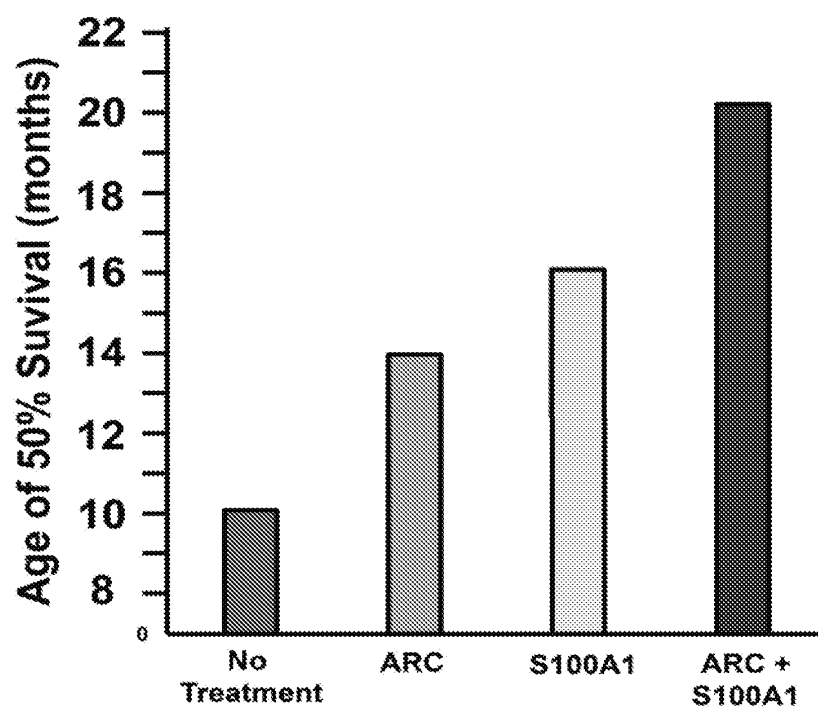


FIG. 17

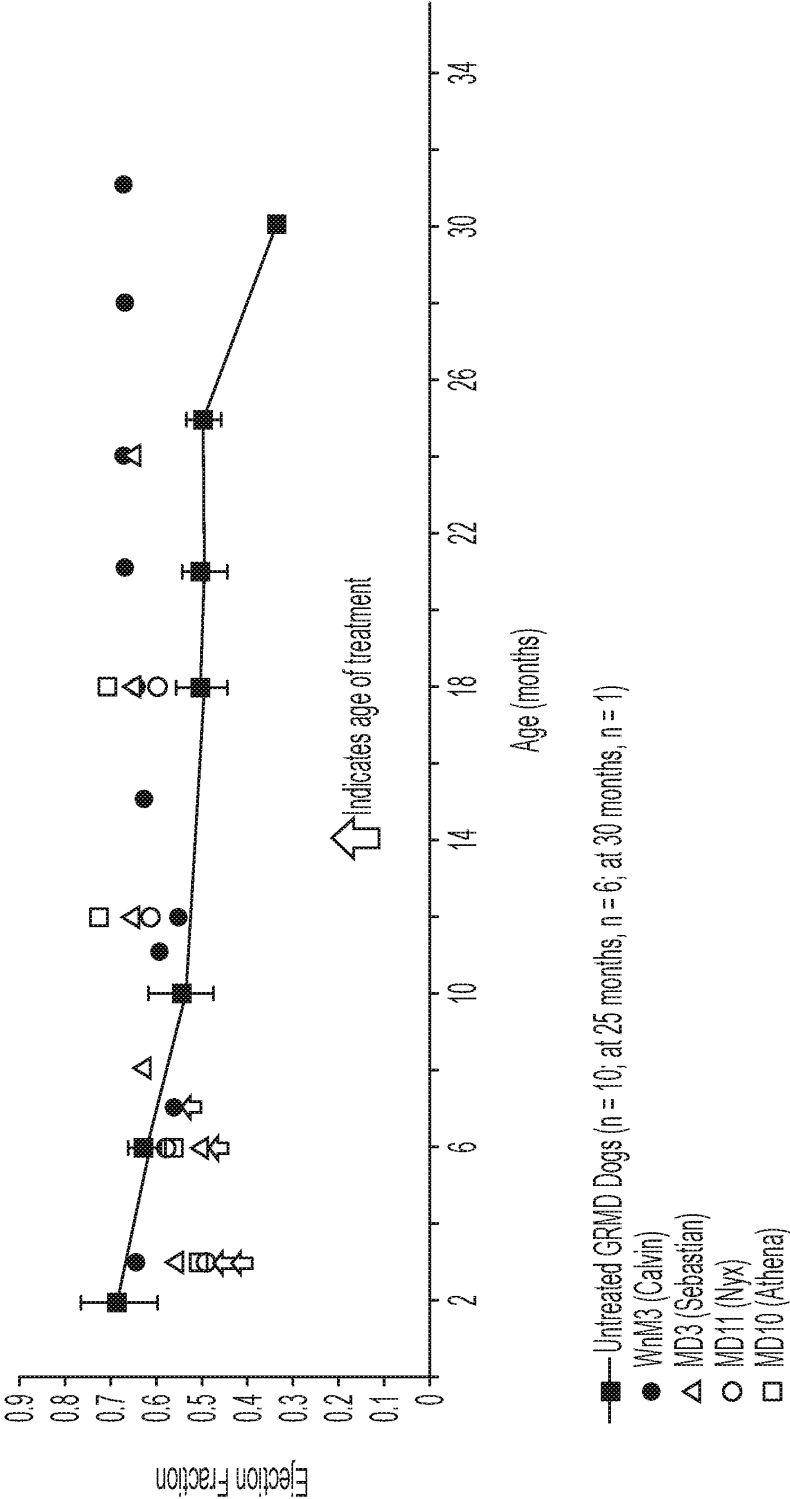


FIG. 18

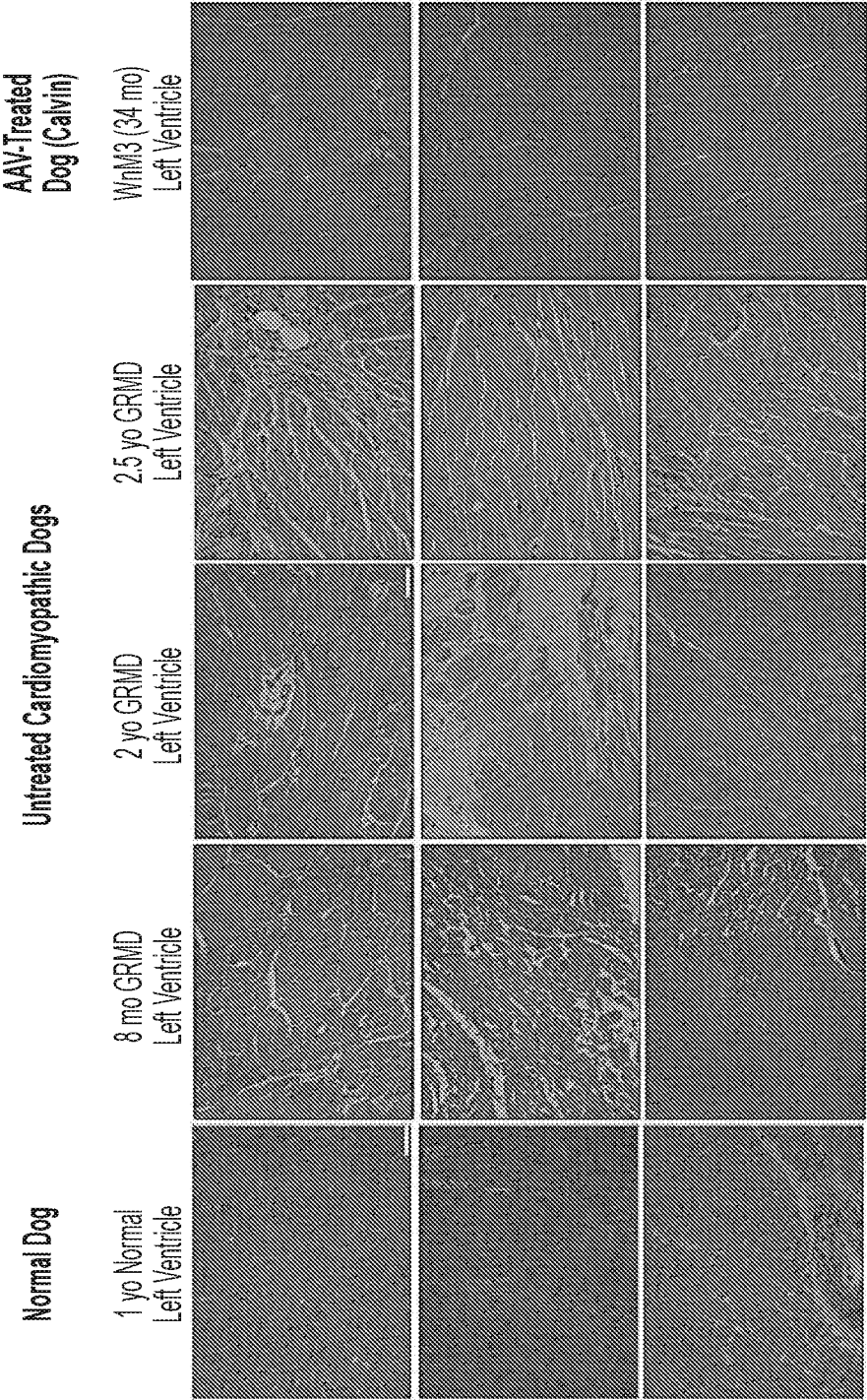


FIG. 19