SEQUENCE LISTING

<110> RECODE THERAPEUTICS, INC.

<120> POLYNUCLEOTIDE COMPOSITIONS, RELATED FORMULATIONS, AND METHODS OF USE THEREOF

<130> 58530-738.601

<140> PCT/US2022/021437
<141> 2022-03-22

<150> US 63/164,522
<151> 2021-03-22

<150> US 63/164,577
<151> 2021-03-23

<150> US 63/229,495
<151> 2021-08-04

<160> 17

<170> KoPatentIn 3.0

<210> 1
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<213> Artificial Sequence

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<223> alpha-globin 5' UTR (HBA1) DNA sequence

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<223> alpha-globin 5' UTR (HBA2) DNA sequence

<400> 2

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agagaagcca cc 72

<210> 3
<211> 43
<212> DNA
<213> Artificial Sequence

<220>
<223> alpha-globin 5' UTR DNA sequence

<400> 3
gggagactct tctggtcccc acagactcag agagaacgcc acc 43

<210> 4
<211> 511
<212> DNA
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<223> IRES of EMCV 5'-UTR DNA sequence

<400> 4
gttattttcc accatattgc cgtcttttgg caatgtgagg gcccggaaac ctggccctgt 60

cttcttgacg agcattccta ggggtctttc ccctctcgcc aaaggaatgc aaggtctgtt 120

gaatgtcgtg aaggaagcag ttcctctgga agcttcttga agacaaacaa cgtctgtagc 180

gacccttttgc aggcagcgga acccccccacc tggcgacagg tgcctctgcg gccaaaagcc 240

acgtgtataa gatacacctg caaaggcggc acaaccccag tgccacgttg tgagttggat 300

agttgtggaa agagtcaaat ggctctcctc aagcgtattc aacaaggggc tgaaggatgc 360

ccagaaggta ccccattgta tgggatctga tctggggcct cggtgcacat gctttacgtg 420

tgtttagtcg aggttaaaaa acgtctaggc cccccgaacc acggggacgt ggttttcctt 480

tgaaaaacac gatgataata tggccacaac c 511

<210> 5
<211> 143
<212> DNA

<213> Artificial Sequence

<220>
<223> IRES of TEV 5'-UTR DNA sequence

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tacttctatt gcagcaattt aaatcatttc ttttaaagca aaagcaattt tctgaaaatt 120

ttcaccattt acgaacgata gca 143

<210> 6
<211> 47
<212> DNA
<213> Artificial Sequence

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<223> ssRNA1 5'UTR DNA sequence

<400> 6
gggagacaag agagaaaaga agagcaagaa gaaatataag agccacc 47

<210> 7
<211> 66
<212> DNA
<213> Artificial Sequence

<220>
<223> ssRNA2 5'UTR DNA sequence

<400> 7
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gccacc 66

<210> 8
<211> 291
<212> DNA
<213> Artificial Sequence

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<223> ssRNA 3 + native 5' UTR DNA sequence

<400> 8
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gccgaagcgc ctgcgccttg gctgctggtc ggttgctggg taaccgcgtc agggagttgg 120

attctatcct gcaagggcac ggggacccac aacgacggct gtccctaaag aaccgttgcg 180

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<223> TMV 3'-UTR DNA sequence

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taaatcgaag ggttgtgtct tggatcgcgc gggtcaaatg tatatggttc atatacatcc 120

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gtcttc 186

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<211> 114
<212> DNA
<213> Artificial Sequence

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<223> MALAT1 3'-UTR DNA sequence

<400> 10
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ttttgctttt tggccttttt ctagcttaaa aaaaaaaaaa gcaaaattgt cttc 114

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<211> 112
<212> DNA

<213> Artificial Sequence

<220>
<223> NEAT2 3'-UTR DNA sequence

<400> 11
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ttgctttttg gcctttccct agctttaaaa aaaaaaaagc aaaattgtct tc 112

<210> 12
<211> 68
<212> DNA
<213> Artificial Sequence

<220>
<223> histone cluster 2, H3c 3'-UTR DNA sequence

<400> 12
gaagtggcgg ttcggccgga ggttccatcg tatccaaaag gctcttttca gagccaccca 60

ttgtcttc 68

<210> 13
<211> 239
<212> DNA
<213> Artificial Sequence

<220>
<223> Native 3' UTR DNA sequence

<400> 13
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gtacccagcc cagccttagc acccagcatg tgaccccact cctgatcagg tcccagcatc 120

ttcccttctt gttctgttcc ttaaggtccc agcaccttac cccaggactt ggtcttcaac 180

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<210> 14
<211> 66
<212> DNA
<213> Artificial Sequence

<220>
<223> ssRNA2 5'UTR (A32C) DNA sequence

<400> 14
gggagaccca agctggctag cgtttaaact tcagcttggc aatccggtac tgttggtaaa 60

gccacc 66

<210> 15
<211> 2100
<212> DNA
<213> Artificial Sequence

<220>
<223> DNAI1 Altered Nucleotide Usage 1 DNA sequence

<400> 15
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gagtgggcac agagcaaggc aaccgtgcgc ccacccgacc agctggagct gacagacgcc 180

gagctgaagg aggagttcac caggatcctg acagccaaca acccacacgc cccccagaac 240

atcgtgcgct acagcttcaa ggagggcaca tacaagccaa tcggcttcgt gaaccagctg 300

gccgtgcact acacccaagt gggcaacctg atccccaagg acagcgacga gggccggaga 360

cagcactaca gggacgagct ggtggcagga agccaggaga gcgtgaaagt gatcagcgag 420

accggcaacc tggaggagga cgaggagcca aaggagctgg agaccgagcc aggaagccag 480

acagacgtgc ccgcagcagg agcagcagag aaggtgaccg aggaggagct gatgacaccc 540

aagcagccaa aggagcggaa gctgaccaac cagttcaact tcagcgagag agccagccag 600

acatacaaca acccagtgcg ggacagagag tgccagaccg agccaccccc cagaaccaac 660

ttcagcgcca cagccaacca gtgggagatc tacgacgcct acgtggagga gctggagaag 720

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tgcaaccagc ccgtggccgc caagaagaac aggctgaccc acgtgcagtt caacctgatc 1920

caccccatca tcatcgtggg cgacgaccgg ggccacatca tcagcctgaa gctgagcccc 1980

aacctgagaa agatgcccaa ggagaagaag ggacaggagg tgcagaaggg accagcagtg 2040

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2100

<210> 16
<211> 2100
<212> DNA
<213> Artificial Sequence

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<223> Wild Type DNAI1 DNA sequence

<400> 16

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gaatgggccc aatccaaagc cacagttaga ccccctgacc agctggagtt gaccgatgcg 180

gagttaaagg aggagttcac tcggattttg acagccaaca acccacacgc accccagaac 240

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gcagttcact acacccaggt tgggaacctg atccccaaag actcagatga aggacggcgg 360

cagcattacc gcgatgaatt agtggcaggt tctcaggagt ctgtcaaggt gatttcagaa 420

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aatttgcgca agatgccaaa ggaaaagaag gggcaggagg tgcagaaggg tccagctgtg 2040

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<212> DNA
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<223> DNAI1 GeneScript Codon DNA sequence

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gagtgggcac agtccaaggc aaccgtgcgc ccacctgacc agctggagct gacagatgcc 180

gagctgaagg aggagttcac caggatcctg acagccaaca atccacacgc cccccagaac 240

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gccgtgcact atacccaagt gggcaatctg atccccaagg actccgatga gggccggaga 360

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