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Gumrukcu, Serhat

<120> METHODS AND COMPOSITIONS FOR NON-MYELOABLATIVE BONE MARROW RECONSTITUTION

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<211> 21
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<213> Artificial Sequence

<220>
<223> hCCR5 shRNA sense

<400> 6
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<210> 7
<211> 21
<212> DNA
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<220>
<223> hCCR5 shRNA antisense

<400> 7
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<210> 8
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<212> DNA
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<220>
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aactggtaaa taaatacgtg ggagaagttg ggtgaagggg gtgtcaaaga ttacacccaa 420

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<213> Artificial Sequence

<220>
<223> Human CD3E

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agcaggcaca cccccaccct gaggcagccg cctgcagcca gaggcgggct gtggttaagc 180

agcgcaggat gtgggctgca ctgctaagcg tggcttctgg gagtgagggt gggagaggta 240

cagcggcagc tggcggaggc ccgtgtgaga gcgctttgtt ctcagtctcc cacagcacac 300

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<210> 10
<211> 501
<212> PRT
<213> Artificial Sequence

<220>
<223> hALDH1 protein

<400> 10

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            20                  25                  30

Val Ser Gly Lys Lys Phe Pro Val Phe Asn Pro Ala Thr Glu Glu Glu
        35                  40                  45

Leu Cys Gln Val Glu Glu Gly Asp Lys Glu Asp Val Asp Lys Ala Val
    50                  55                  60

Lys Ala Ala Arg Gln Ala Phe Gln Ile Gly Ser Pro Trp Arg Thr Met
65                  70                  75                  80

Asp Ala Ser Glu Arg Gly Arg Leu Leu Tyr Lys Leu Ala Asp Leu Ile
                85                  90                  95

Glu Arg Asp Arg Leu Leu Leu Ala Thr Met Glu Ser Met Asn Gly Gly
            100                 105                 110

Lys Leu Tyr Ser Asn Ala Tyr Leu Asn Asp Leu Ala Gly Cys Ile Lys
        115                 120                 125

Thr Leu Arg Tyr Cys Ala Gly Trp Ala Asp Lys Ile Gln Gly Arg Thr
    130                 135                 140

Ile Pro Ile Asp Gly Asn Phe Phe Thr Tyr Thr Arg His Glu Pro Ile
145                 150                 155                 160

Gly Val Cys Gly Gln Ile Ile Pro Trp Asn Phe Pro Leu Val Met Leu
                165                 170                 175

Ile Trp Lys Ile Gly Pro Ala Leu Ser Cys Gly Asn Thr Val Val Val
            180                 185                 190

Lys Pro Ala Glu Gln Thr Pro Leu Thr Ala Leu His Val Ala Ser Leu
        195                 200                 205

Ile Lys Glu Ala Gly Phe Pro Pro Gly Val Val Asn Ile Val Pro Gly
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Tyr Gly Pro Thr Ala Gly Ala Ala Ile Ser Ser His Met Asp Ile Asp
225                 230                 235                 240

Lys Val Ala Phe Thr Gly Ser Thr Glu Val Gly Lys Leu Ile Lys Glu
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Ala Ala Gly Lys Ser Asn Leu Lys Arg Val Thr Leu Glu Leu Gly Gly
            260                 265                 270

Lys Ser Pro Cys Ile Val Leu Ala Asp Ala Asp Leu Asp Asn Ala Val
        275                 280                 285

Glu Phe Ala His His Gly Val Phe Tyr His Gln Gly Gln Cys Cys Ile
    290                 295                 300

Ala Ala Ser Arg Ile Phe Val Glu Glu Ser Ile Tyr Asp Glu Phe Val
305                 310                 315                 320

Arg Arg Ser Val Glu Arg Ala Lys Lys Tyr Ile Leu Gly Asn Pro Leu
                325                 330                 335

Thr Pro Gly Val Thr Gln Gly Pro Gln Ile Asp Lys Glu Gln Tyr Asp
            340                 345                 350

Lys Ile Leu Asp Leu Ile Glu Ser Gly Lys Lys Glu Gly Ala Lys Leu
        355                 360                 365

Glu Cys Gly Gly Gly Pro Trp Gly Asn Lys Gly Tyr Phe Val Gln Pro
    370                 375                 380

Thr Val Phe Ser Asn Val Thr Asp Glu Met Arg Ile Ala Lys Glu Glu
385                 390                 395                 400

Ile Phe Gly Pro Val Gln Gln Ile Met Lys Phe Lys Ser Leu Asp Asp
                405                 410                 415

Val Ile Lys Arg Ala Asn Asn Thr Phe Tyr Gly Leu Ser Ala Gly Val
            420                 425                 430
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Phe Thr Lys Asp Ile Asp Lys Ala Ile Thr Ile Ser Ser Ala Leu Gln
        435   440   445

Ala Gly Thr Val Trp Val Asn Cys Tyr Gly Val Val Ser Ala Gln Cys
    450   455   460

Pro Phe Gly Gly Phe Lys Met Ser Gly Asn Gly Arg Glu Leu Gly Glu
465   470   475   480

Tyr Gly Phe His Glu Tyr Thr Glu Val Lys Thr Val Thr Val Lys Ile
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Ser Gln Lys Asn Ser
            500

<210> 11
<211> 135
<212> PRT
<213> Artificial Sequence

<220>
<223> Membrane Anchored C46 Fusion Inhibitor Protein

<400> 11

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Leu Leu Leu Leu Leu Gly Val Ser Leu Gly Gly Ala Arg Ser Trp Met
            20   25   30

Glu Trp Asp Arg Glu Ile Asn Asn Tyr Thr Ser Leu Ile His Ser Leu
        35   40   45

Ile Glu Glu Ser Gln Asn Gln Gln Glu Lys Asn Glu Gln Glu Leu Leu
    50   55   60

Glu Leu Asp Lys Trp Ala Ser Leu Trp Asn Trp Phe Arg Ser Glu Arg
65   70   75   80

Lys Cys Cys Val Glu Cys Pro Pro Cys Pro Ala Pro Pro Val Ala Gly
                85   90   95

Pro Leu Ile Ala Leu Val Thr Ser Gly Ala Leu Leu Ala Val Leu Gly
100 105 110

Ile Thr Gly Tyr Phe Leu Met Asn Arg Arg Ser Trp Ser Pro Thr Gly
115 120 125

Glu Arg Leu Glu Leu Glu Pro
130 135

<210> 12
<211> 540
<212> DNA
<213> Artificial Sequence

<220>
<223> synthetic sequence

<400> 12
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caagttagca aaaagttaac ataacacaaa aaggtcttgc aggaaaaaaa aaagaaaaga 120

aaagaaagaa aaagtctcca agaatggttt ggacagccaa aatgaatact tatagtcacg 180

tatacctgct cactcctgac gcttcactca cacacagcac aggatctggt gaggctatca 240

ctaaatgtgc cacattgtgg ttaagtttta cctgattaac gaaatgctca cacttctaaa 300

ctgaggtcct tacagtagat tccttttgca agattgttac tggcttacaa cttaaaaata 360

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<211> 321
<212> DNA
<213> Artificial Sequence

<220>
<223> synthetic sequence

<400> 13
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agtgagcgca ctcttgacag ggctctattt tagtgaagcc acagatgtaa aatagagccc 180

tgtcaagagt ttgcctactg cctcggactt caaggggcta gaattcgagc aattatcttg 240

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tggtataaat taaatcactt t 321

<210> 14
<211> 132
<212> DNA
<213> Artificial Sequence

<220>
<223> synthetic sequence

<400> 14
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accatgaaca ac 132

<210> 15
<211> 44
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic sequence

<400> 15

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Asn Gln Ser Glu Glu Ile Leu Ser His Ile Leu Ser Thr Tyr Asn Asn
20 25 30

Ile Glu Arg Asp Trp Glu Met Trp Thr Met Asn Asn
35 40

<210> 16
<211> 273
<212> DNA
<213> Artificial Sequence

<220>
<223> synthetic sequence

<400> 16
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cccccctgcc ccagatgccc cgagcccaag agctgcgaca ccccccccc ctgccccaga 180

tgccccttg aaaatggtgg gacatcctta tcagagaaaa cagttcttct gctggtgact 240

ccatttctgg cagcagcctg gagccttcat ccc 273

<210> 17
<211> 91
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic sequence

<400> 17

Glu Leu Lys Thr Pro Leu Gly Asp Thr Thr His Thr Cys Pro Arg Cys
1 5 10 15

Pro Glu Pro Lys Ser Cys Asp Thr Pro Pro Pro Cys Pro Arg Cys Pro
20 25 30

Glu Pro Lys Ser Cys Asp Thr Pro Pro Pro Cys Pro Arg Cys Pro Glu
35 40 45

Pro Lys Ser Cys Asp Thr Pro Pro Pro Cys Pro Arg Cys Pro Leu Glu
50 55 60

Asn Gly Gly Thr Ser Leu Ser Glu Lys Thr Val Leu Leu Leu Val Thr
65 70 75 80

Pro Phe Leu Ala Ala Ala Trp Ser Leu His Pro
85 90

<210> 18
<211> 405
<212> DNA
<213> Artificial Sequence

<220>
<223> synthetic sequence

<400> 18
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accatgaaca acgagctgaa gacccccctg ggcgacacca cccacacctg ccccagatgc 180

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<210> 19
<211> 135
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic sequence

<400> 19

Ala Trp Lys Asp Leu Glu Leu Leu Glu Gln Glu Asn Lys Glu Gln Gln
1 5 10 15

Asn Gln Ser Glu Glu Ile Leu Ser His Ile Leu Ser Thr Tyr Asn Asn
20 25 30

Ile Glu Arg Asp Trp Glu Met Trp Thr Met Asn Asn Glu Leu Lys Thr
35 40 45

Pro Leu Gly Asp Thr Thr His Thr Cys Pro Arg Cys Pro Glu Pro Lys
50 55 60

Ser Cys Asp Thr Pro Pro Pro Cys Pro Arg Cys Pro Glu Pro Lys Ser
65 70 75 80

Cys Asp Thr Pro Pro Pro Cys Pro Arg Cys Pro Glu Pro Lys Ser Cys
85 90 95

Asp Thr Pro Pro Pro Cys Pro Arg Cys Pro Leu Glu Asn Gly Gly Thr
100 105 110

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Ser Leu Ser Glu Lys Thr Val Leu Leu Leu Val Thr Pro Phe Leu Ala
        115                 120                 125


Ala Ala Trp Ser Leu His Pro
    130                 135
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