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<110> THE GENERAL HOSPITAL CORPORATION

<120> TARGETING THE CBM SIGNALOSOME COMPLEX INDUCES REGULATORY T CELLS
TO INFLAME THE TUMOR MICROENVIRONMENT

<130> 030258-090990WOPT

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<150> 62/611,186

<151> 2017-12-28

<160> 49

<170> PatentIn version 3.5

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<212> DNA

<213> Homo sapiens

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Cys Lys Val Ile Asp Glu Gln Asp Glu Asp Glu Val Leu Asn Ala Pro
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Met Leu Pro Ser Lys Ile Asn Arg Ala Gly Arg Leu Leu Asp Ile Leu
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His Thr Lys Gly Gln Arg Gly Tyr Val Val Phe Leu Glu Ser Leu Glu
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Phe Tyr Tyr Pro Glu Leu Tyr Lys Leu Val Thr Gly Lys Glu Pro Thr
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Arg Arg Phe Ser Thr Ile Val Val Glu Glu Gly His Glu Gly Leu Thr
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Gln Glu Arg Tyr Tyr Lys Met Lys Glu Glu Arg Asp Ser Tyr Asn Asp
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Glu Leu Val Lys Val Lys Asp Asp Asn Tyr Asn Leu Ala Met Arg Tyr
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Leu Gln Leu Glu Ile Asp Gln Leu Lys His Arg Leu Asn Lys Met Glu
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Asn Arg Ile Tyr Asn Leu Gln Glu Glu Ala Arg Gln Ala Glu Glu Leu
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Thr Asn Ser Phe Thr Lys Met Gln Pro Pro Arg Ser Arg Ser Ser Ile
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Met Ser Ile Thr Ala Glu Pro Pro Gly Asn Asp Ser Ile Val Arg Arg
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Tyr Lys Glu Asp Ala Pro His Arg Ser Thr Val Glu Glu Asp Asn Asp
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Ser Gly Gly Phe Asp Ala Leu Asp Leu Asp Asp Asp Ser His Glu Arg
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Tyr Ser Phe Gly Pro Ser Ser Ile His Ser Ser Ser Ser Ser His Gln
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Gly Ser Phe Val His Ser Val Lys Pro Gly Ser Leu Ala Glu Lys Ala
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Ala Arg Val Asp Pro Phe Thr Asp His Asp Leu Asp Met Gly Thr Ile
820 825 830

Pro Ser Tyr Ser Arg Ala Gln Gln Leu Leu Leu Val Lys Leu Gln Arg
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Leu Met His Arg Gly Ser Arg Glu Glu Val Asp Gly Thr His His Thr
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Gln Glu Glu Leu Asp Pro Glu Ser Glu Leu Gly Lys Asn Leu Ser Leu
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Ile Pro Tyr Ser Leu Val Arg Ala Phe Tyr Cys Glu Arg Arg Arg Pro
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Val Leu Phe Thr Pro Thr Val Leu Ala Lys Thr Leu Val Gln Arg Leu
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Val Thr Arg Asp Glu Phe Leu Arg Arg Gln Lys Thr Glu Thr Ile
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Ile Tyr Ser Arg Glu Lys Asn Pro Asn Ala Phe Glu Cys Ile Ala
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Arg Glu Asp Thr Glu Glu Ile Ser Cys Arg Thr Ser Ser Arg Lys Arg
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Ala Gly Lys Leu Leu Asp Tyr Leu Gln Glu Asn Pro Lys Gly Leu Asp
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Thr Leu Val Glu Ser Ile Arg Arg Glu Lys Thr Gln Asn Phe Leu Ile
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Gln Lys Ile Thr Asp Glu Val Leu Lys Leu Arg Asn Ile Lys Leu Glu
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His Leu Lys Asp Gly Ala Thr Asn Asn Leu Ser Arg Ser Asn Ser Asp
115 120 125

Glu Ser Asn Phe Ser Glu Lys Leu Arg Ala Ser Thr Val Met Tyr His
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Pro Glu Gly Glu Ser Ser Thr Thr Pro Phe Phe Ser Thr Asn Ser Ser
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Leu Asn Leu Pro Val Leu Glu Val Gly Arg Thr Glu Asn Thr Ile Phe
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Val Leu Glu Pro Glu Gly Ser Pro Ser Leu Cys Leu Leu Lys Leu Met
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Phe Lys Met Asn Lys Glu Ile Pro Asn Gly Asn Thr Ser Glu Leu Ile
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Phe Asn Ala Val His Val Lys Asp Ala Gly Phe Tyr Val Cys Arg Val
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Arg Lys Arg Asn Asp Tyr Asp Asp Thr Ile Pro Ile Leu Asp Ala Leu
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Lys Phe Asp Cys Gly Val Gln Ile Gln Leu Gly Phe Ala Ala Glu Phe
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Ser Asn Val Met Ile Ile Tyr Thr Ser Ile Val Tyr Lys Pro Pro Glu
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Tyr Leu Val Ser Lys Asp Leu Pro Lys His Cys Leu Tyr Thr Arg Leu
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Ser Tyr Gln Tyr Ser Gly Leu Glu Asp Thr Val Glu Asp Lys Gln Glu
690 695 700

Val Asn Val Gly Lys Pro Leu Ile Ala Lys Leu Asp Met His Arg Gly
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Tyr Gln Ser Ser Ala Ala Thr Ser Gly Gly Ala Gly His Tyr His Ser
740 745 750

Leu Gln Asp Pro Phe His Gly Val Tyr His Ser His Pro Gly Asn Pro
755 760 765

Ser Asn Val Thr Pro Ala Asp Ser Cys His Cys Ser Arg Thr Pro Asp
770 775 780

Ala Phe Ile Ser Ser Phe Ala His His Ala Ser Cys His Phe Ser Arg
785 790 795 800

Ser Asn Val Pro Val Glu Thr Thr Asp Glu Ile Pro Phe Ser Phe Ser
805 810 815

Asp Arg Leu Arg Ile Ser Glu Lys
820

<210> 7

<211> 4

<212> PRT

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic
peptide

<400> 7

Val Arg Pro Arg

1

<210> 8

<211> 8

<212> PRT

<213> Gallus gallus

<400> 8

Ser Ile Ile Asn Phe Glu Lys Leu

1

5

<210> 9

<211> 4

<212> PRT
<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic peptide

<400> 9
Leu Ser Ser Arg
1

<210> 10
<211> 4
<212> PRT
<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic peptide

<400> 10
Leu Ser Ser Arg
1

<210> 11
<211> 4
<212> PRT
<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic peptide

<400> 11
Gly Ala Ser Arg
1

<210> 12
<211> 4
<212> PRT
<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic peptide

<400> 12
Gly Ala Ser Arg
1

<210> 13
<211> 57
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Synthetic
primer

<220>
<221> modified_base
<222> (57)..(57)
<223> a, c, t, g, unknown or other

<400> 13
aagcagtggg atcaacgcag agtacttttt tttttttttt tttttttttt tttttvn 57

<210> 14
<211> 30
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Synthetic
oligonucleotide

<220>
<223> Description of Combined DNA/RNA Molecule: Synthetic
oligonucleotide

<400> 14
aagcagtggg atcaacgcag agtacatggg 30

<210> 15
<211> 23
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Synthetic
primer

<400> 15
aagcagtggg atcaacgcag agt 23

<210> 16
<211> 51
<212> DNA
<213> Artificial Sequence

<220>
 <223> Description of Artificial Sequence: Synthetic
 oligonucleotide

<220>
 <221> modified_base
 <222> (30)..(37)
 <223> This region may encompass one of the following sequences:
 "AAGTAGAG" or "ACACGATC" or "TGTTCCGA"

<220>
 <223> See specification as filed for detailed description of
 substitutions and preferred embodiments

<400> 16
 aatgatacgg cgaccaccga gatctacacn nnnnnntcg tcggcagcgt c 51

<210> 17
 <211> 69
 <212> DNA
 <213> Artificial Sequence

<220>
 <223> Description of Artificial Sequence: Synthetic
 oligonucleotide

<220>
 <221> modified_base
 <222> (25)..(32)
 <223> This region may encompass one of the following sequences:
 "AGCAATTC" or "AACTTGAC" or "TGTCGGAT" or "TCGCCTTG" or
 "AAGACACT" or "TCTCGGTC"

<220>
 <223> See specification as filed for detailed description of
 substitutions and preferred embodiments

<400> 17
 caagcagaag acggcatacg agatnnnnnn nngtgactgg agttcagacg tgtgctcttc 60
 cgatctggg 69

<210> 18
 <211> 21
 <212> DNA
 <213> Artificial Sequence

<220>
 <223> Description of Artificial Sequence: Synthetic
 primer

<400> 18
acatgctgag ccgttacatc a 21

<210> 19
<211> 20
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Synthetic
primer

<400> 19
ccacatagcc cctttgtccc 20

<210> 20
<211> 22
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Synthetic
primer

<400> 20
cggcacagtc attgaaagcc ta 22

<210> 21
<211> 21
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Synthetic
primer

<400> 21
gttgctgatg gcctgattgt c 21

<210> 22
<211> 23
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Synthetic
primer

<400> 22

gcttcctaga ttaccccttc tgc 23

<210> 23

<211> 19

<212> DNA

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic
primer

<400> 23

cgggcatggt tctggatca 19

<210> 24

<211> 22

<212> DNA

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic
primer

<400> 24

ccacattcaa agccctctcc ta 22

<210> 25

<211> 22

<212> DNA

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic
primer

<400> 25

gttttccac acttcatctt gc 22

<210> 26

<211> 17

<212> DNA

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic
primer

<400> 26

ttggccagcg ccatctt 17

<210> 27
 <211> 21
 <212> DNA
 <213> Artificial Sequence

 <220>
 <223> Description of Artificial Sequence: Synthetic
 primer

 <400> 27
 tgcctcctcc agagagaagt g 21

 <210> 28
 <211> 19
 <212> DNA
 <213> Artificial Sequence

 <220>
 <223> Description of Artificial Sequence: Synthetic
 primer

 <400> 28
 aaggttcaga acggaagtg 19

 <210> 29
 <211> 19
 <212> DNA
 <213> Artificial Sequence

 <220>
 <223> Description of Artificial Sequence: Synthetic
 primer

 <400> 29
 gggctctccac agtggtact 19

 <210> 30
 <211> 20
 <212> DNA
 <213> Artificial Sequence

 <220>
 <223> Description of Artificial Sequence: Synthetic
 primer

 <400> 30
 caaatccac acaaccactg 20

 <210> 31

<211> 20	
<212> DNA	
<213> Artificial Sequence	
<220>	
<223> Description of Artificial Sequence: Synthetic primer	
<400> 31	
tgctcacttg gtcacaggac	20
<210> 32	
<211> 20	
<212> DNA	
<213> Artificial Sequence	
<220>	
<223> Description of Artificial Sequence: Synthetic primer	
<400> 32	
catgtagggc cgagagtggg	20
<210> 33	
<211> 20	
<212> DNA	
<213> Artificial Sequence	
<220>	
<223> Description of Artificial Sequence: Synthetic primer	
<400> 33	
cctcctgcta ctgctgacct	20
<210> 34	
<211> 20	
<212> DNA	
<213> Artificial Sequence	
<220>	
<223> Description of Artificial Sequence: Synthetic primer	
<400> 34	
tgctgcataa tcagctacgg	20
<210> 35	
<211> 20	
<212> DNA	

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic primer

<400> 35

gctggtcaca ttgagaagca

20

<210> 36

<211> 20

<212> DNA

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic primer

<400> 36

acaagctgct acaaccaggg

20

<210> 37

<211> 20

<212> DNA

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic primer

<400> 37

acttctggct ggagacctca

20

<210> 38

<211> 21

<212> DNA

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic primer

<400> 38

gtggccgcag tgggacaaga g

21

<210> 39

<211> 20

<212> DNA

<213> Artificial Sequence

<220>
 <223> Description of Artificial Sequence: Synthetic primer

 <400> 39
 agggcactgg tggcatcatc 20

 <210> 40
 <211> 20
 <212> DNA
 <213> Artificial Sequence

 <220>
 <223> Description of Artificial Sequence: Synthetic primer

 <400> 40
 tggtgaaatt gcaagagctg 20

 <210> 41
 <211> 20
 <212> DNA
 <213> Artificial Sequence

 <220>
 <223> Description of Artificial Sequence: Synthetic primer

 <400> 41
 cagacttccg ttggtggatt 20

 <210> 42
 <211> 21
 <212> DNA
 <213> Artificial Sequence

 <220>
 <223> Description of Artificial Sequence: Synthetic primer

 <400> 42
 cagaggaaag agagaaagtc c 21

 <210> 43
 <211> 19
 <212> DNA
 <213> Artificial Sequence

 <220>
 <223> Description of Artificial Sequence: Synthetic

primer

<400> 43
cacacggtga cagtgctgg 19

<210> 44
<211> 20
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Synthetic
primer

<400> 44
catcctgctg ggtctgagtg 20

<210> 45
<211> 20
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Synthetic
primer

<400> 45
attctcactg gcccgtcatc 20

<210> 46
<211> 21
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Synthetic
primer

<400> 46
caagagagtg ctgttcagg t 21

<210> 47
<211> 21
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Synthetic
primer

<400> 47
gagcacgctg agtacctcat t 21

<210> 48
<211> 18
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Synthetic
primer

<400> 48
tggtgaaggt cggtgaac 18

<210> 49
<211> 24
<212> DNA
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Synthetic
primer

<400> 49
ccatgtagtt gaggtcaatg aagg 24