SEQUENCE LISTING

<110> Genentech, Inc. et al.

<120> DIAGNOSIS AND TREATMENTS RELATING TO HER3 INHIBITORS

<130> P4884R1WO

<150> 61/616241
<151> 2012-03-27

<160> 18

<170> PatentIn version 3.5

<210> 1
<211> 121
<212> PRT
<213> Artificial Sequence

<220>
<223> Heavy Chain Variable Region

<400> 1

```
Glu Val Gln Leu Val Glu Ser Gly Gly Gly Leu Val Gln Pro Gly Gly
1               5                   10                  15


Ser Leu Arg Leu Ser Cys Ala Ala Ser Gly Phe Thr Leu Ser Gly Asp
            20                  25                  30


Trp Ile His Trp Val Arg Gln Ala Pro Gly Lys Gly Leu Glu Trp Val
        35                  40                  45


Gly Glu Ile Ser Ala Ala Gly Gly Tyr Thr Asp Tyr Ala Asp Ser Val
    50                  55                  60


Lys Gly Arg Phe Thr Ile Ser Ala Asp Thr Ser Lys Asn Thr Ala Tyr
65                  70                  75                  80


Leu Gln Met Asn Ser Leu Arg Ala Glu Asp Thr Ala Val Tyr Tyr Cys
                85                  90                  95


Ala Arg Glu Ser Arg Val Ser Phe Glu Ala Ala Met Asp Tyr Trp Gly
            100                 105                 110


Gln Gly Thr Leu Val Thr Val Ser Ser
        115                 120
```

<210> 2
<211> 108
<212> PRT
<213> Artificial Sequence

<220>
<223> Light Chain Variable Region

<400> 2

```
Asp Ile Gln Met Thr Gln Ser Pro Ser Ser Leu Ser Ala Ser Val Gly
```

1 5 10 15

Asp Arg Val Thr Ile Thr Cys Arg Ala Ser Gln Asn Ile Ala Thr Asp
20 25 30

Val Ala Trp Tyr Gln Gln Lys Pro Gly Lys Ala Pro Lys Leu Leu Ile
35 40 45

Tyr Ser Ala Ser Phe Leu Tyr Ser Gly Val Pro Ser Arg Phe Ser Gly
50 55 60

Ser Gly Ser Gly Thr Asp Phe Thr Leu Thr Ile Ser Ser Leu Gln Pro
65 70 75 80

Glu Asp Phe Ala Thr Tyr Tyr Cys Gln Gln Ser Glu Pro Glu Pro Tyr
85 90 95

Thr Phe Gly Gln Gly Thr Lys Val Glu Ile Lys Arg
100 105

<210> 3
<211> 7
<212> PRT
<213> Artificial Sequence

<220>
<223> HVR-H1

<400> 3

Leu Ser Gly Asp Trp Ile His
1 5

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

<220>
<223> HVR-H2

<400> 4

Val Gly Glu Ile Ser Ala Ala Gly Gly Tyr Thr Asp
1 5 10

<210> 5
<211> 14
<212> PRT
<213> Artificial Sequence

<220>
<223> HVR-H3

<400> 5

Ala Arg Glu Ser Arg Val Ser Phe Glu Ala Ala Met Asp Tyr
1 5 10

<210> 6
<211> 7
<212> PRT
<213> Artificial Sequence

<220>
<223> HVR-L1

<400> 6

Asn Ile Ala Thr Asp Val Ala
1 5

<210> 7
<211> 4
<212> PRT
<213> Artificial Sequence

<220>
<223> HVR-L2

<400> 7

Ser Ala Ser Phe
1

<210> 8
<211> 7
<212> PRT
<213> Artificial Sequence

<220>
<223> HVR-L3

<400> 8

Ser Glu Pro Glu Pro Tyr Thr
1 5

<210> 9
<211> 640
<212> PRT
<213> Homo sapiens

<400> 9

Met Ser Glu Arg Lys Glu Gly Arg Gly Lys Gly Lys Gly Lys Lys Lys
1 5 10 15

Glu Arg Gly Ser Gly Lys Lys Pro Glu Ser Ala Ala Gly Ser Gln Ser
20 25 30

Pro Ala Leu Pro Pro Arg Leu Lys Glu Met Lys Ser Gln Glu Ser Ala
35 40 45

Ala Gly Ser Lys Leu Val Leu Arg Cys Glu Thr Ser Ser Glu Tyr Ser
50 55 60

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

```
Asn Lys Pro Gln Asn Ile Lys Ile Gln Lys Lys Pro Gly Lys Ser Glu
                85                  90                  95

Leu Arg Ile Asn Lys Ala Ser Leu Ala Asp Ser Gly Glu Tyr Met Cys
            100                 105                 110

Lys Val Ile Ser Lys Leu Gly Asn Asp Ser Ala Ser Ala Asn Ile Thr
        115                 120                 125

Ile Val Glu Ser Asn Glu Ile Ile Thr Gly Met Pro Ala Ser Thr Glu
    130                 135                 140

Gly Ala Tyr Val Ser Ser Glu Ser Pro Ile Arg Ile Ser Val Ser Thr
145                 150                 155                 160

Glu Gly Ala Asn Thr Ser Ser Ser Thr Ser Thr Ser Thr Thr Gly Thr
                165                 170                 175

Ser His Leu Val Lys Cys Ala Glu Lys Glu Lys Thr Phe Cys Val Asn
            180                 185                 190

Gly Gly Glu Cys Phe Met Val Lys Asp Leu Ser Asn Pro Ser Arg Tyr
        195                 200                 205

Leu Cys Lys Cys Gln Pro Gly Phe Thr Gly Ala Arg Cys Thr Glu Asn
    210                 215                 220

Val Pro Met Lys Val Gln Asn Gln Glu Lys Ala Glu Glu Leu Tyr Gln
225                 230                 235                 240

Lys Arg Val Leu Thr Ile Thr Gly Ile Cys Ile Ala Leu Leu Val Val
                245                 250                 255

Gly Ile Met Cys Val Val Ala Tyr Cys Lys Thr Lys Lys Gln Arg Lys
            260                 265                 270

Lys Leu His Asp Arg Leu Arg Gln Ser Leu Arg Ser Glu Arg Asn Asn
        275                 280                 285

Thr Met Asn Ile Ala Asn Gly Pro His His Pro Asn Pro Pro Pro Glu
    290                 295                 300

Asn Val Gln Leu Val Asn Gln Tyr Val Ser Lys Asn Val Ile Ser Ser
305                 310                 315                 320

Glu His Ile Val Glu Arg Glu Ala Glu Thr Ser Phe Ser Thr Ser His
                325                 330                 335

Tyr Thr Ser Thr Ala His His Ser Thr Thr Val Thr Gln Thr Pro Ser
            340                 345                 350
```

```
His Ser Trp Ser Asn Gly His Thr Glu Ser Ile Leu Ser Glu Ser His
        355                 360                 365

Ser Val Ile Val Met Ser Ser Val Glu Asn Ser Arg His Ser Ser Pro
    370                 375                 380

Thr Gly Gly Pro Arg Gly Arg Leu Asn Gly Thr Gly Gly Pro Arg Glu
385                 390                 395                 400

Cys Asn Ser Phe Leu Arg His Ala Arg Glu Thr Pro Asp Ser Tyr Arg
                405                 410                 415

Asp Ser Pro His Ser Glu Arg Tyr Val Ser Ala Met Thr Thr Pro Ala
            420                 425                 430

Arg Met Ser Pro Val Asp Phe His Thr Pro Ser Ser Pro Lys Ser Pro
        435                 440                 445

Pro Ser Glu Met Ser Pro Pro Val Ser Ser Met Thr Val Ser Met Pro
    450                 455                 460

Ser Met Ala Val Ser Pro Phe Met Glu Glu Glu Arg Pro Leu Leu Leu
465                 470                 475                 480

Val Thr Pro Pro Arg Leu Arg Glu Lys Lys Phe Asp His His Pro Gln
                485                 490                 495

Gln Phe Ser Ser Phe His His Asn Pro Ala His Asp Ser Asn Ser Leu
            500                 505                 510

Pro Ala Ser Pro Leu Arg Ile Val Glu Asp Glu Glu Tyr Glu Thr Thr
        515                 520                 525

Gln Glu Tyr Glu Pro Ala Gln Glu Pro Val Lys Lys Leu Ala Asn Ser
    530                 535                 540

Arg Arg Ala Lys Arg Thr Lys Pro Asn Gly His Ile Ala Asn Arg Leu
545                 550                 555                 560

Glu Val Asp Ser Asn Thr Ser Ser Gln Ser Ser Asn Ser Glu Ser Glu
                565                 570                 575

Thr Glu Asp Glu Arg Val Gly Glu Asp Thr Pro Phe Leu Gly Ile Gln
            580                 585                 590

Asn Pro Leu Ala Ala Ser Leu Glu Ala Thr Pro Ala Phe Arg Leu Ala
        595                 600                 605

Asp Ser Arg Thr Asn Pro Ala Gly Arg Phe Ser Thr Gln Glu Glu Ile
    610                 615                 620
```

Gln Ala Arg Leu Ser Ser Val Ile Ala Asn Gln Asp Pro Ile Ala Val
625 630 635 640

<210> 10
<211> 1709
<212> DNA
<213> Homo sapiens

<400> 10
cactggttgc ggagtgagct gggcgcgcgg cgcgcaggcg ccctggggac ccggtagcgg 60

cggtggcggt ggcggcggtg gcggtggctg cggcgacggc agaggcgaag ggagccggat 120

cgccgacctg agcgggaggc ggcggtggcg gccatggcgg cagatggaga gcgttccccg 180

ctgctgtctg agcccatcga cggtggcgcg ggcggcaacg gtttagtggg gcccggcggg 240

agtggggctg ggcccggggg aggcctgacc ccctccgcac caccgtacgg agccgcattt 300

cccccgtttc ccgaggggca tccagccgtg ttgcctgggg aggacccacc cccctattca 360

cccttaacta gcccggacag tgggagtgcc cctatgatca cctgccgagt ctgccaatct 420

ctcatcaacg tggaaggcaa gatgcatcag catgtagtca aatgtggtgt ctgcaatgaa 480

gccaccccaa tcaagaatgc acccccaggg aaaaaatatg ttcgatgccc ctgtaactgt 540

ctccttatct gcaaagtgac atcccaacgg attgcatgcc ctcggcccta ctgcaaaaga 600

atcatcaacc tggggcctgt gcatcccgga cctctgagtc cagaacccca acccatgggt 660

gtcagggtta tctgtggaca ttgcaagaat acttttctgt ggacagagtt cacagaccgc 720

actttggcac gttgtcctca ctgcaggaaa gtgtcatcta ttgggcgcag atacccacgt 780

aagagatgta tctgctgctt cttgcttggc ttgcttttgg cagtcactgc cactggcctt 840

gcctttggca catggaagca tgcacggcga tatggaggca tctatgcagc ctgggcattt 900

gtcatcctgt tggctgtgct gtgtttgggc cgggctcttt attgggcctg tatgaaggtc 960

agccaccctg tccagaactt ctcctgagcc tgatgaccca cagactgtgc ctggcccctc 1020

cctggtgggg acagtgacac tacgaaggga gctggggtag ttaaaggctc ccggggcttc 1080

tagaaggaag ccaagcagct gccttccttt tccctgggga gaggtaggaa ggaaccaggc 1140

cctcacttag gtttggaggg gcagataaga gcactgctga ccatctgctt tcctccaagg 1200

gttgctgtgt ctagggtgaa gtaggcaaaa cgttgccctt aaaactgggc cctgaagacg 1260

gttccagcct tgtccttcct gtgtgctccc tgagagccat tcctgtccct tacacattcc 1320

agggcagggt gggggtgggt agccctgggg gttcccctcc ctcttgtgca ccattaggac 1380

tttgctgctg ctattgcact tcaccagagg ttggctctgg cctcagtacc ctcagtctcc 1440

tctccccaca ttgtgtcctg tgggggtggg gtcagccgct gctctgtaca gaaccacagg 1500

aactgatgtg tatataacta tttaatgtgg gatatgttcc cctattcctg tatttccctt 1560

aattcctcct cccgaccttt tttacccccc cagttgcagt atttaactgg gctgggtagg 1620

gttgctcagt ctttggggga ggttagggac ttatcctgtg cttgtaaata aataaggtca 1680

tgactctacg cttaaaaaaa aaaaaaaaa 1709

<210> 11
<211> 1730
<212> DNA
<213> Homo sapiens

<400> 11
cactggttgc ggagtgagct gggcgcgcgg cgcgcaggcg ccctggggac ccggtagcgg 60

cggtggcggt ggcggcggtg gcggtggctg cggcgacggc agaggcgaag ggagccggat 120

cgccgacctg agcgggaggc ggcggtggcg gccatggcgg cagatggaga gcgttccccg 180

ctgctgtctg agcccatcga cggtggcgcg ggcggcaacg gtttagtggg gcccggcggg 240

agtggggctg ggcccggggg aggcctgacc ccctccgcac caccgtacgg agccggtaaa 300

catgccccgc cccaggcatt tcccccgttt cccgaggggc atccagccgt gttgcctggg 360

gaggacccac ccccctattc acccttaact agcccggaca gtgggagtgc ccctatgatc 420

acctgccgag tctgccaatc tctcatcaac gtggaaggca agatgcatca gcatgtagtc 480

aaatgtggtg tctgcaatga agccacccca atcaagaatg cacccccagg gaaaaaatat 540

gttcgatgcc cctgtaactg tctccttatc tgcaaagtga catcccaacg gattgcatgc 600

cctcggccct actgcaaaag aatcatcaac ctggggcctg tgcatcccgg acctctgagt 660

ccagaacccc aacccatggg tgtcagggtt atctgtggac attgcaagaa tacttttctg 720

tggacagagt tcacagaccg cactttggca cgttgtcctc actgcaggaa agtgtcatct 780

attgggcgca gatacccacg taagagatgt atctgctgct tcttgcttgg cttgcttttg 840

gcagtcactg ccactggcct tgcctttggc acatggaagc atgcacggcg atatggaggc 900

atctatgcag cctgggcatt tgtcatcctg ttggctgtgc tgtgtttggg ccgggctctt 960

tattgggcct gtatgaaggt cagccaccct gtccagaact tctcctgagc ctgatgaccc 1020

acagactgtg cctggcccct ccctggtggg gacagtgaca ctacgaaggg agctggggta 1080

gttaaaggct cccggggctt ctagaaggaa gccaagcagc tgccttcctt ttccctgggg 1140

agaggtagga aggaaccagg ccctcactta ggtttggagg ggcagataag agcactgctg 1200

accatctgct ttcctccaag ggttgctgtg tctagggtga agtaggcaaa acgttgccct 1260

taaaactggg ccctgaagac ggttccagcc ttgtccttcc tgtgtgctcc ctgagagcca 1320

ttcctgtccc ttacacattc cagggcaggg tgggggtggg tagccctggg ggttcccctc 1380

cctcttgtgc accattagga ctttgctgct gctattgcac ttcaccagag gttggctctg 1440

gcctcagtac cctcagtctc ctctccccac attgtgtcct gtgggggtgg ggtcagccgc 1500

tgctctgtac agaaccacag gaactgatgt gtatataact atttaatgtg ggatatgttc 1560

ccctattcct gtatttccct taattcctcc tcccgacctt ttttaccccc ccagttgcag 1620

tatttaactg ggctgggtag ggttgctcag tctttggggg aggttaggga cttatcctgt 1680

gcttgtaaat aaataaggtc atgactctac gcttaaaaaa aaaaaaaaaa 1730

<210> 12
<211> 2639
<212> DNA
<213> Homo sapiens

<400> 12
gagatctagg aagtcgcttc tttttctggt agaaggcggg gttctcctcg tacgctgcgg 60

agtctctgcg gggtgtagac cggaatcctg ctgacgggca gagtggatca gggagggagg 120

gtcgagacac ggtggctgca ggtctgagac aaggctgctc cgaggtagta gctctcttgc 180

ctggaggtgg ccattcattc ctggagtgct gctgaggagc gagggcccat ctggggtctc 240

tggaagtcgg tgcccaggcc tgaaggatag ccccccttgc gcttccctgg gctgcggccg 300

gccttctcag aacgaagggc gtccttccac cccgcggcgc aggtgaccgc tgccatggct 360

tttccccatc ggccggacgc ccctgagctg cctgacttct ccatgctgaa gaggctggct 420

cgagaccagc tcatctatct gctggagcag cttcctggaa aaaaggattt attcattgag 480

gcagatctca tgagcccttt ggatcgaatt gccaatgtct ccatcctgaa gcaacacgaa 540

gtagacaagc tatacaaggt ggagaacaag ccagccctca gctccaatga acaattgtgc 600

ttcttggtca gaccccgcat caagaatatg cgatacattg ccagtcttgt caatgctgac 660

aaattggctg gccgaactcg caaatacaaa gtgatcttca gccctcaaaa gttctatgcg 720

tgtgagatgg tgcttgagga agagggaatc tatggagatg tgagctgtga tgaatgggcc 780

ttctctttgc tgcctcttga tgtggatctg ctgagcatgg aactaccaga atttttcagg 840

gattactttc tggaaggaga tcagcgttgg atcaacactg tagctcaggc cttacacctt 900

ctcagcactc tctatggacc ctttccaaac tgctatggaa ttggcaggtg cgccaagatg 960

gcatatgaat tgtggaggaa cctggaggag gaggaggatg gcgaaaccaa gggccgaagg 1020

ccagagattg gacatatctt tctcttggac agagatgtgg actttgtgac agcactttgc 1080

tcccaagtgg tttatgaggg cctagtagat gacaccttcc gcatcaagtg tgggagtgtc 1140

gactttggcc cagaagtcac atcctctgac aagagcctga aggtgctact caatgccgag 1200

gacaaggtgt ttaatgagat tcggaacgag cacttctcca atgtctttgg cttcttgagc 1260

cagaaggccc ggaacttgca ggcccagtat gatcgccgga gaggcatgga cattaagcag 1320

atgaagaatt tcgtgtccca ggagctcaag ggcctgaaac aggagcaccg cctgctgagt 1380

ctccatattg gggcctgtga atccatcatg aagaagaaaa ccaagcagga tttccaggag 1440

ctaatcaaga ctgagcatgc actgctagag gggttcaaca tccgggagag caccagctac 1500

attgaggaac acatagaccg gcaggtgtcg cctatagaaa gcctgcgcct catgtgcctt 1560

ttgtccatca ctgagaatgg tttgatcccc aaggattacc gatctctgaa aacacagtat 1620

ctgcagagct atggccctga gcacctgcta accttctcca atctgcgaag agctgggctc 1680

ctaacggagc aggcccccgg ggacaccctc acagccgtgg agagtaaagt gagcaagctg 1740

gtgaccgaca aggctgcagg aaagattact gatgccttca gttctctggc caagaggagc 1800

aattttcgtg ccatcagcaa aaagctgaat ttgatcccac gtgtggacgg cgagtatgat 1860

ctgaaagtgc cccgagacat ggcttacgtc ttcggtggtg cttatgtgcc cctgagctgc 1920

cgaatcattg agcaggtgct agagcggcga agctggcagg gccttgatga ggtggtacgg 1980

ctgctcaact gcagtgactt tgcattcaca gatatgacta aggaagacaa ggcttccagt 2040

gagtccctgc gcctcatctt ggtggtgttc ttgggtggtt gtacattctc tgagatctca 2100

gccctccggt tcctgggcag agagaaaggc tacaggttca ttttcctgac gacagcagtc 2160

acaaacagcg ctcgccttat ggaggccatg agtgaggtga aagcctgatg tttttcccgg 2220

ccagtgttga catcttccct gaacacattc ctcagtgaga tgcaggcatc tggcacccag 2280

ctgctataac caagtgtcca ccaactacct gctaagagcc gggagcatgg aacgtgttgg 2340

gatttagaga acattatctg agaaaagagt tcacttcctg ctcccaggat atttctcttt 2400

tctgtttatg aagtacaacc catgctgcta agatgcgagc aggaagaggc atcctttgct 2460

aaatcctgtt tgaatgtcat tgtaaataaa gcctctgctc tcagatgtaa tacgttggtc 2520

gttctggaca cgcacttcca tctttattag tgaaagccca ttggagcttg ctacaggggc 2580

ttcctgtgct tcttggcctg gactttgtag tggctccagg cctggtctgg ttcttccct 2639

<210> 13
<211> 20
<212> DNA
<213> Artificial Sequence

<220>
<223> PCR Primer

<400> 13
ggcctcagta ccctcagtct 20

<210> 14
<211> 16
<212> DNA
<213> Artificial Sequence

<220>
<223> PCR primer

<400> 14
agagcagcgg ctgacc 16

<210> 15
<211> 16
<212> DNA
<213> Artificial Sequence

<220>
<223> Probe

<400> 15
ccccacagga cacaat 16

<210> 16
<211> 21
<212> DNA
<213> Artificial Sequence

<220>
<223> PCR Primer

<400> 16
ggctcgagac cagctcatct a 21

<210> 17
<211> 25
<212> DNA
<213> Artificial Sequence

<220>
<223> PCR Primer

<400> 17
gagatctgcc tcaatgaata aatcc 25

<210> 18
<211> 14
<212> DNA
<213> Artificial Sequence

<220>
<223> Probe

<400> 18
tggagcagct tcct 14