SEQUENCE LISTING

<110> CureVac GmbH

<120> Nucleic acids of formula (I) (NuGlXmGnNv)a and derivatives thereof as an immune-stimulating agent/adjuvant

<130> CU01P072WO

<140>
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<150> EP 08001827.8
<151> 2008-01-31

<160> 119

<170> PatentIn version 3.5

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<210> 79
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<210> 82
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<210> 83
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<211> 60
<212> RNA
<213> Artificial

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<211> 60
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<210> 88
<211> 40
<212> RNA
<213> Artificial

<220>
<223> Description of sequence: Exemplary sequence according to general formula (II)

<400> 88
ccccccccccc ccccccccccc gguuuuuuuu uuuuuuuggg 40

<210> 89
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<400> 89
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<210> 90
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<213> Artificial

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<222> (23)..(37)
<223> sequence is double stranded ((A:U)

<400> 90
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<210> 91
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<400> 91
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<210> 92
<211> 80
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<213> Artificial

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<223> Description of sequence: Exemplary sequence according to general formula (II)

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ugcguuccua gaaguacacg 80

<210> 93
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<400> 93
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<210> 94
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uagcgaagcu cuuggaccua 80

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<223> Description of sequence: exemplary sequence of stem 1 (sequence is palindromic to SEQ ID NO: 96)

<400> 95
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<210> 96
<211> 20
<212> RNA
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<400> 96
uagguccaag agcuucgcua 20

<210> 97
<211> 11
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<400> 97
gccgcgggcc g 11

<210> 98
<211> 11
<212> RNA
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<223> Description of sequence: exemplary sequence of stem 2 (sequence is palindromic to SEQ ID NO: 97)

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cggcccgcgg c 11

<210> 99
<211> 10
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<400> 99
gacacggugc 10

<210> 100
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<400> 100
gcaccgugca 10

<210> 101
<211> 8
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<400> 101
accuaggu 8

<210> 102
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<212> RNA
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<220>
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<400> 102
uggaucca 8

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<220>
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<210> 104
<211> 5
<212> RNA
<213> Artificial

<220>
<223> Description of sequence: exemplary sequence of stem 2 (sequence is palindromic to SEQ ID NO: 103)

<400> 104
gcagg 5

<210> 105
<211> 5
<212> RNA
<213> Artificial

<220>
<223> Description of sequence: exemplary sequence of stem 1 (sequence is palindromic to SEQ ID NO: 106)

<400> 105
gcagg 5

<210> 106
<211> 5
<212> RNA
<213> Artificial

<220>
<223> Description of sequence: exemplary sequence of stem 2 (sequence is palindromic to SEQ ID NO: 105)

<400> 106
ccugc 5

<210> 107
<211> 60
<212> RNA
<213> Artificial

<220>
<223> Description of sequence: inventive nucleic acid according to either formula (IIIa) or (IIIb)

<400> 107
uagcgaagcu cuuggaccua gguuuuuuuu uuuuuuuggg uagguccaag agcuucgcua 60

<210> 108
<211> 122
<212> RNA
<213> Artificial

<220>
<223> Description of sequence: inventive nucleic acid according to either formula (IIIa) or (IIIb)

<400> 108
uagcgaagcu cuuggaccua gguuuuuuuu uuuuuuuggg ugcguuccua gaaguacacg 60

gccgcgggcc gugcguuccu agaaguacac gcggcccgcg gcugcguucc uagaaguaca 120

cg 122

<210> 109
<211> 18
<212> PRT
<213> Unknown

<220>
<223> Description of sequence: sequence of protamin P1

<400> 109

Ser Arg Ser Arg Tyr Tyr Arg Gln Arg Gln Arg Ser Arg Arg Arg Arg
1 5 10 15

Arg Arg

<210> 110
<211> 21
<212> PRT
<213> Unknown

<220>
<223> Description of sequence: sequence of protamin P2

<400> 110

Arg Arg Arg Leu His Arg Ile His Arg Arg Gln His Arg Ser Cys Arg
1 5 10 15

Arg Arg Lys Arg Arg
20

<210> 111
<211> 13
<212> RNA
<213> Unknown

<220>
<223> Description of sequence: Kozak sequence

<400> 111
gccgccacca ugg 13

<210> 112
<211> 15
<212> RNA
<213> Artificial

<220>
<223> Description of sequence: generic stabilizing sequence of the formula (C/U)CCANxCCC(U/A)PyxUC(C/U)CC

<220>
<221> variation
<222> (1)..(1)
<223> /replace="cytidine (cytosine)"

/replace="uridine (uracile)"

<220>
<221> misc_feature
<222> (1)..(1)
<223> nucleic acid = cytidine (cytosine) or uridine (uracile)

<220>
<221> misc_feature
<222> (5)..(5)
<223> Nx = a, g, c or u or any other nucleic acid

<220>
<221> variation
<222> (5)..(5)
<223> /replace="cytidine (cytosine)"

/replace="uridine (uracile)"

/replace="guanosine"

/replace="adenosine", or any othe nucleic acid

<220>
<221> repeat_unit
<222> (5)..(5)
<223> x = any number

<220>
<221> misc_feature
<222> (9)..(9)
<223> nucleic acid = uridine (uracile) or adenosine

<220>
<221> variation
<222> (9)..(9)
<223> /replace="uridine (uracile)"

/replace="adonosine"

<220>
<221> misc_feature
<222> (10)..(10)
<223> Py = pyrimidine

<220>
<221> repeat_unit
<222> (10)..(10)
<223> x = any number

<220>
<221> variation
<222> (10)..(10)
<223> /replace="pyrimidine"

<220>
<221> misc_feature
<222> (13)..(13)
<223> nucleic acid = cytidine (cytosine) or uridine (uracile)

<220>
<221> variation
<222> (13)..(13)
<223> /replace="cytidine (cytosine)"

/replace="uridine (uracile)"

<400> 112
nccancccnn ucncc 15

<210> 113
<211> 20
<212> RNA
<213> Artificial

<220>
<223> Description of sequence: immune-stimulating oligo RNA40

<400> 113
gcccgucugu ugugugacuc 20

<210> 114
<211> 229
<212> RNA
<213> Artificial Sequence

<220>
<223> Description of sequence: Exemplary sequence according to formula (I)

<400> 114
gggagaaagc ucaagcuugg agcaaugccc gcacauugag gaaaccgagu ugcauaucuc 60

agaguauugg cccccgugua gguuauucuu gacagacagu ggagcuuauu cacucccagg 120

auccgagucg cauacuacgg uacuggugac agaccuaggu cgucaguuga ccaguccgcc 180

acuagacgug aguccgucaa agcaguuaga uguuacacuc uauuagauc 229

<210> 115
<211> 547
<212> RNA
<213> Artificial Sequence

<220>
<223> Description of sequence: Exemplary sequence according to formula (I)

<400> 115
gggagaaagc ucaagcuugg agcaaugccc gcacauugag gaaaccgagu ugcauaucuc 60

agaguauugg cccccgugua gguuauucuu gacagacagu ggagcuuauu cacucccagg 120

auccgagucg cauacuacgg uacuggugac agaccuaggu cgucaguuga ccaguccgcc 180

acuagacgug aguccgucaa agcaguuaga uguuacacuc uauuagaucu cggauuacag 240

cuggaaggag caggaguagu guucuugcuc uaaguaccga gugugcccaa uacccgauca 300

gcuuauuaac gaacggcucc uccucuuaga cugcagcgua agugcggaau cuggggauca 360

aauuacugac ugccuggauu acccucggac auauaaccuu guagcacgcu guugcuguau 420

aggugaccaa cgcccacucg aguagaccag cucucuuagu ccggacaaug auaggaggcg 480

cggucaaucu acuucuggcu aguuaagaau aggcugcacc gaccucuaua aguagcgugu 540

ccucuag 547

<210> 116
<211> 1083
<212> RNA
<213> Artificial Sequence

<220>
<223> Description of sequence: Exemplary sequence according to formula (I)

<400> 116
gggagaaagc ucaagcuugg agcaaugccc gcacauugag gaaaccgagu ugcauaucuc 60

<220>
<223> Description of sequence: Exemplary sequence according to formula (I)

<400> 117
gggagaaagc ucaagcuuau ccaaguaggc uggucaccug uacaacguag ccgguauuuu 60

uuuuuuuuuu uuuuuuuuga ccgucucaag guccaaguua gucugccuau aaaggugcgg 120

auccacagcu gaugaaagac uugugcggua cgguuaaucu ccccuuuuuu uuuuuuuuuu 180

uuuuuaguaa augcgucuac ugaauccagc gaugaugcug gcccagauc 229

<210> 118
<211> 546
<212> RNA
<213> Artificial Sequence

<220>
<223> Description of sequence: Exemplary sequence according to formula (I)

<400> 118
gggagaaagc ucaagcuuau ccaaguaggc uggucaccug uacaacguag ccgguauuuu 60

uuuuuuuuuu uuuuuuuuga ccgucucaag guccaaguua gucugccuau aaaggugcgg 120

guggaguguc acugcucucg aggucucacg agagcgcucg auacaguccu uggaagaauc 480
uuuuuuuuuu uuuuuuuuuu uugugcgacg aucacagaga acuucuauuc augcaggucu 540
gcucuagaac gaacugaccu gacgccugaa cuuaugagcg ugcguauuuu uuuuuuuuuu 600
uuuuuuuuuc cucccaacaa augucgauca auagcugggc uguuggagac gcgucagcaa 660
augccguggc uccauaggac guguagacuu cuauuuuuuu uuuuuuuuuu uuuucccggg 720
accacaaaua auauucuugc uuggguugggc gcaagggccc cguaucaggu cauaaacggg 780
uacauguugc acaggcuccu uuuuuuuuuu uuuuuuuuuu uucgcugagu uauuccgguc 840
ucaaaagacg gcagacguca gucgacaaca cggucuaaag cagugcuaca aucugccgug 900
uucguguuuu uuuuuuuuuu uuuuuuguga accuacacgg cgugcacugu aguucgcaau 960
ucauagggua ccggcucaga guuaugccuu gguugaaaac ugcccagcau acuuuuuuuu 1020
uuuuuuuuuu uucauauucc caugcuaagc aagggaugcc gcgagucaug uuaagcuuga 1080
auu 1083