SEQUENCE LISTING

<110> BioNTech RNA Pharmaceuticals GmbH

<120> METHODS FOR PREDICTING THE USEFULNESS OF DISEASE SPECIFIC AMINO ACID MODIFICATIONS FOR IMMUNOTHERAPY

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<151> 2017-06-09

<160> 23

<170> PatentIn version 3.5

<210> 1
<211> 15
<212> PRT
<213> Artificial Sequence

<220>
<223> Linker sequence

<220>
<221> REPEAT
<222> (1)..(3)
<223> Portion of sequence repeated a times, wherein a is independently a number selected from 0, 1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14, 15, 16, 17, 18, 19, or 20

<220>
<221> MISC_FEATURE
<222> (1)..(15)
<223> a + b + c + d + e are different from 0 and preferably are 2 or more, 3 or more, 4 or more or 5 or more

<220>
<221> REPEAT
<222> (4)..(6)
<223> Portion of sequence repeated b times, wherein b is independently a number selected from 0, 1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14, 15, 16, 17, 18, 19, or 20

<220>
<221> REPEAT
<222> (7)..(9)
<223> Portion of sequence repeated c times, wherein c is independently a number selected from 0, 1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12,

13, 14, 15, 16, 17, 18, 19, or 20

<220>
<221> REPEAT
<222> (10)..(12)
<223> Portion of sequence repeated d times, wherein d is independently a number selected from 0, 1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14, 15, 16, 17, 18, 19, or 20

<220>
<221> REPEAT
<222> (13)..(15)
<223> Portion of sequence repeated e times, wherein e is independently a number selected from 0, 1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14, 15, 16, 17, 18, 19, or 20

<400> 1

Gly Gly Ser Gly Ser Ser Gly Gly Gly Ser Ser Gly Gly Ser Gly
1 5 10 15

<210> 2
<211> 9
<212> PRT
<213> Artificial Sequence

<220>
<223> Linker sequence

<400> 2

Gly Gly Ser Gly Gly Gly Gly Ser Gly
1 5

<210> 3
<211> 9
<212> PRT
<213> Homo sapiens

<400> 3

Lys Ser Gln Arg Glu Phe Val Arg Arg
1 5

<210> 4
<211> 9
<212> PRT

<213> Homo sapiens

<400> 4

Met Arg Met Asn Gln Gly Val Cys Cys
1 5

<210> 5
<211> 14
<212> PRT
<213> Homo sapiens

<400> 5

Lys Phe Gly Gln Gly Leu Glu Asp Gln Leu Ala Thr Lys Ser
1 5 10

<210> 6
<211> 15
<212> PRT
<213> Homo sapiens

<400> 6

Gly Gln Gly Leu Glu Asp Gln Leu Ala Gln Thr Lys Ser Leu Ser
1 5 10 15

<210> 7
<211> 15
<212> PRT
<213> Homo sapiens

<400> 7

Gly Leu Glu Asp Gln Leu Ala Gln Thr Lys Ser Leu Ser Leu Asp
1 5 10 15

<210> 8
<211> 15
<212> PRT
<213> Homo sapiens

<400> 8

Glu Asp Gln Leu Ala Gln Thr Lys Ser Leu Ser Leu Asp Asp Cys
1 5 10 15

<210> 9
<211> 15
<212> PRT
<213> Homo sapiens

<400> 9

Thr Arg Leu Ser Lys Val Phe Ser Ala Met Leu Ala Ile Tyr Ser
1 5 10 15

<210> 10
<211> 15
<212> PRT
<213> Homo sapiens

<400> 10

Lys Val Phe Ser Ala Met Leu Ala Ile Tyr Ser Asn Lys Pro Ala
1 5 10 15

<210> 11
<211> 15
<212> PRT
<213> Homo sapiens

<400> 11

Ala Met Leu Ala Ile Tyr Ser Asn Lys Pro Ala Leu Trp Ile Met
1 5 10 15

<210> 12
<211> 15
<212> PRT
<213> Homo sapiens

<400> 12

Ile Tyr Ser Asn Lys Pro Ala Leu Trp Ile Met Ala Ala Lys Trp
1 5 10 15

<210> 13
<211> 19
<212> PRT
<213> Homo sapiens

<400> 13

Ala Asp His Asp Leu Gly Arg Leu His Ser Cys Val Met Ala Ser Leu
1 5 10 15

Arg Ala Gln

<210> 14
<211> 9
<212> PRT
<213> Homo sapiens

<400> 14

His Asp Leu Gly Arg Leu His Ser Cys
1 5

<210> 15
<211> 9
<212> PRT
<213> Homo sapiens

<400> 15

His Ser Cys Val Met Ala Ser Leu Arg
1 5

<210> 16
<211> 15
<212> PRT
<213> Homo sapiens

<400> 16

Ala Cys Tyr Gly Ala Asp His Asp Leu Gly Arg Leu His Ser Cys
1 5 10 15

<210> 17
<211> 15
<212> PRT
<213> Homo sapiens

<400> 17

Ala Asp His Asp Leu Gly Arg Leu His Ser Cys Val Met Ala Ser
1 5 10 15

<210> 18
<211> 15
<212> PRT
<213> Homo sapiens

<400> 18

Leu Gly Arg Leu His Ser Cys Val Met Ala Ser Leu Arg Ala Gln
1 5 10 15

<210> 19
<211> 15
<212> PRT
<213> Homo sapiens

<400> 19

His Ser Cys Val Met Ala Ser Leu Arg Ala Gln Ser Pro Ile Pro
1 5 10 15

<210> 20
<211> 31
<212> DNA
<213> Artificial Sequence

<220>
<223> Oligonucleotide

<400> 20
gccaccatga tcctaaacaa agctctgmtg c 31

<210> 21
<211> 33
<212> DNA
<213> Artificial Sequence

<220>
<223> Oligonucleotide

<400> 21
tatgcgatcg ctcacaakgg cccytggtgt ctg 33

<210> 22
<211> 27
<212> PRT
<213> Homo sapiens

<400> 22

Cys Ser Pro Gly Phe Phe Lys Phe Glu Ala Ser Glu Ser Leu Cys Leu
1 5 10 15

Glu Cys Pro Glu His Thr Leu Pro Ser Pro Glu
20 25

<210> 23
<211> 18
<212> PRT
<213> Homo sapiens

<400> 23

Met Pro Arg Ser Glu Ser Tyr Cys Phe Pro Gly Val Thr Leu Ala Ser
1 5 10 15

Thr Pro