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<110> Regeneron Pharmaceuticals, Inc.

<120> NUCLEASE-MEDIATED REPEAT EXPANSION

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<151> 2018-12-20

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<151> 2019-04-05

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His Thr Leu Asn Gly Glu Ile Leu Arg Asn Ala Glu Ser Gly Ala Ile
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Thr Asp Gln Val Leu Leu Ser Asp Gly Glu Ile Thr Phe Leu Ala Asn
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His Thr Leu Asn Gly Glu Ile Leu Arg Asn Ala Glu Ser Gly Ala Ile
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Asp Val Lys Phe Phe Val Leu Ser Glu Lys Gly Val Ile Ile Val Ser
 85 90 95

Leu Ile Phe Asp Gly Asn Trp Asn Gly Asp Arg Ser Thr Tyr Gly Leu
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Thr Gly Glu Val Ile Pro Val Met Glu Leu Leu Ala Ser Met Lys Ser
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Glu Asp Asp Thr Gln Lys Gly Lys Lys Pro Phe Lys Ser Leu Arg Asn
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Phe

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<400> 43

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			20					25					30		

Trp	Asp	Asn	Ile	Leu	Gly	Pro	Arg	Val	Arg	His	Ile	Trp	Ala	Pro	Lys
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Thr	Asp	Gln	Val	Leu	Leu	Ser	Asp	Gly	Glu	Ile	Thr	Phe	Leu	Ala	Asn
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His Thr Leu Asn Gly Glu Ile Leu Arg Asn Ala Glu Ser Gly Ala Ile
65 70 75 80

Asp Val Lys Phe Phe Val Leu Ser Glu Lys Gly Val Ile Ile Val Ser
85 90 95

Leu Ile Phe Asp Gly Asn Trp Asn Gly Asp Arg Ser Thr Tyr Gly Leu
100 105 110

Ser Ile Ile Leu Pro Gln Thr Glu Leu Ser Phe Tyr Leu Pro Leu His
115 120 125

Arg Val Cys Val Asp Arg Leu Thr His Ile Ile Arg Lys Gly Arg Ile
130 135 140

Trp Met His Lys Glu Arg Gln Glu Asn Val Gln Lys Ile Val Leu Glu
145 150 155 160

Gly Thr Glu Arg Met Glu Asp Gln Gly Gln Ser Ile Ile Pro Met Leu
165 170 175

Thr Gly Glu Val Ile Pro Val Met Glu Leu Leu Ala Ser Met Arg Ser
180 185 190

His Ser Val Pro Glu Asp Leu Asp Ile Ala Asp Thr Val Leu Asn Asp
195 200 205

Asp Asp Ile Gly Asp Ser Cys His Glu Gly Phe Leu Leu Asn Ala Ile
210 215 220

Ser Ser His Leu Gln Thr Cys Gly Cys Ser Val Val Val Gly Ser Ser
225 230 235 240

Ala Glu Lys Val Asn Lys Ile Val Arg Thr Leu Cys Leu Phe Leu Thr
245 250 255

Pro Ala Glu Arg Lys Cys Ser Arg Leu Cys Glu Ala Glu Ser Ser Phe
260 265 270

Lys Tyr Glu Ser Gly Leu Phe Val Gln Gly Leu Leu Lys Asp Ala Thr
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280

285

Gly Ser Phe Val Leu Pro Phe Arg Gln Val Met Tyr Ala Pro Tyr Pro
 290 295 300

Thr Thr His Ile Asp Val Asp Val Asn Thr Val Lys Gln Met Pro Pro
 305 310 315 320

Cys His Glu His Ile Tyr Asn Gln Arg Arg Tyr Met Arg Ser Glu Leu
 325 330 335

Thr Ala Phe Trp Arg Ala Thr Ser Glu Glu Asp Met Ala Gln Asp Thr
 340 345 350

Ile Ile Tyr Thr Asp Glu Ser Phe Thr Pro Asp Leu Asn Ile Phe Gln
 355 360 365

Asp Val Leu His Arg Asp Thr Leu Val Lys Ala Phe Leu Asp Gln Val
 370 375 380

Phe His Leu Lys Pro Gly Leu Ser Leu Arg Ser Thr Phe Leu Ala Gln
 385 390 395 400

Phe Leu Leu Ile Leu His Arg Lys Ala Leu Thr Leu Ile Lys Tyr Ile
 405 410 415

Glu Asp Asp Thr Gln Lys Gly Lys Lys Pro Phe Lys Ser Leu Arg Asn
 420 425 430

Leu Lys Ile Asp Leu Asp Leu Thr Ala Glu Gly Asp Leu Asn Ile Ile
 435 440 445

Met Ala Leu Ala Glu Lys Ile Lys Pro Gly Leu His Ser Phe Ile Phe
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Gly Arg Pro Phe Tyr Thr Ser Val Gln Glu Arg Asp Val Leu Met Thr
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Phe

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<400> 44
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 gccggggccg gggccggggc cggggccggg gccggggccg gggccggggc cggggccggg 180
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