CLAIMS:

1. An oligomeric compound comprising a modified oligonucleotide consisting of 12 to 30 linked nucleosides wherein the nucleobase sequence of the modified oligonucleotide is at least 80% complementary to an equal length portion of an ATXN1 nucleic acid, and wherein the modified oligonucleotide comprises at least one modification selected from a modified sugar moiety and a modified internucleoside linkage.
2. The oligomeric compound of claim 1, wherein the ATXN1 nucleic acid has the nucleobase sequence of any of SEQ ID NO: 1, SEQ ID NO: 2, SEQ ID NO: 3, SEQ ID NO: 4, SEQ ID NO: 5, or SEQ ID NO: 6.
3. The oligomeric compound of claim 1 or claim 2, wherein the nucleobase sequence of the modified oligonucleotide is at least 80% complementary to an equal length portion within nucleobases:

   an equal length portion of nucleobases 5472-5552 of SEQ ID NO: 1;
   an equal length portion of nucleobases 5906-6005 of SEQ ID NO: 1;
   an equal length portion of nucleobases 7868-7911 of SEQ ID NO: 1;
   an equal length portion of nucleobases 8481-8514 of SEQ ID NO: 1; or
   an equal length portion of nucleobases 446679-446706 of SEQ ID NO: 2.
4. The oligomeric compound of any of claims 1-3, wherein the nucleobase sequence of the modified oligonucleotide is at least 80% complementary to an equal length portion within nucleobases:

   an equal length portion of nucleobases 5489-5508 of SEQ ID NO: 1;
   an equal length portion of nucleobases 5491-5507 of SEQ ID NO: 1;
   an equal length portion of nucleobases 5912-5931 of SEQ ID NO: 1;
   an equal length portion of nucleobases 7892-7911 of SEQ ID NO: 1;
   an equal length portion of nucleobases 8481-8500 of SEQ ID NO: 1; or
   an equal length portion of nucleobases 446680-446699 of SEQ ID NO: 2.
5. The oligomeric compound of any of claims 1-4, wherein the nucleobase sequence of the modified oligonucleotide is at least 85%, at least 90%, at least 95%, or 100% complementary to an equal length portion of the ATXN1 nucleic acid.
6. An oligomeric compound comprising a modified oligonucleotide consisting of 12 to 30 linked nucleosides, wherein the modified oligonucleotide has a nucleobase sequence comprising at least 12, 13, 14, 15, 16, 17, 18, 19, or 20 contiguous nucleobases of any of SEQ ID NOs: 22-3624 or 3655.
7. An oligomeric compound comprising a modified oligonucleotide consisting of 12 to 30 linked nucleosides, wherein the modified oligonucleotide has a nucleobase sequence comprising at least 12, 13, 14, 15, 16, or 17 contiguous nucleobases of any of SEQ ID NOs: 3625-3654 or 3656-3669.
8. The oligomeric compound of claim 6 or 7, wherein the modified oligonucleotide has a nucleobase sequence comprising the nucleobase sequence of any of SEQ ID NO: 22-3669.
9. The oligomeric compound of claim 8, wherein the modified oligonucleotide has a nucleobase sequence consisting of the nucleobase sequence of any of SEQ ID NO: 22-3669.
10. The oligomeric compound of any of claims 6-9, wherein the modified oligonucleotide has a nucleobase sequence comprising at least 8, at least 9, at least 10, at least 11, at least 12, at least 13, at least 14, at least 15, at least 16, or at least 17 contiguous nucleobases of a sequence selected from:

SEQ ID NOs: 196, 274, 352, 430, 508, 2578, 2655, 2732, 2809, 2886, 2963, 3121, 3122, 3190, 3191, 3192, 3262, 3330, 3331, 3332, 3401, 3402, 3575, 3577, 3620, 3624, 3638-3640, 3653-3655, 3662, 3665, 3669;

SEQ ID Nos: 42, 120, 198, 276, 509, 587, 2502, 2579, 2656, 2733, 2810, 2887, 2964, 3585, 3588-3590, 3615, 3618, 3622, 3657, 3660, 3661, 3663, 3664, 3666-3668;

SEQ ID Nos: 48, 126, 2044, 2121;

SEQ ID Nos: 128, 206, 284, 1045, 1122, 1199, and 1276; or

SEQ ID Nos: 2475, 2552, 2629, 2706, 2783, 3627-3630, 3644.

11. The oligomeric compound of any of claims 6-9, wherein the modified oligonucleotide has a nucleobase sequence comprising at least 8, at least 9, at least 10, at least 11, at least 12, at least 13, at least 14, at least 15, at least 16, or 17 contiguous nucleobases of any of the nucleobase sequences of SEQ ID NO: 3638.
12. The oligomeric compound of any of claims 6-9, wherein the modified oligonucleotide has a nucleobase sequence comprising at least 8, at least 9, at least 10, at least 11, at least 12, at least 13, at least 14, at least 15, at least 16, at least 17, at least 18, at least 19, or 20 contiguous nucleobases of any of the nucleobase sequences of SEQ ID NO: 126, 1045, 2552, 3190, or 3590.
13. The oligomeric compound of claim 10 or 11, wherein the modified oligonucleotide consists of 17 to 30 linked nucleosides and has a nucleobase sequence comprising the nucleobase sequence of any of 126, 1045, 2552, 3190, 3590, or 3638.
14. The oligomeric compound of claim 13, wherein the modified oligonucleotide has a nucleobase sequence consisting of the nucleobase sequence of any one of 126, 1045, 2552, 3190, 3590, or 3638.
15. The oligomeric compound of any of claims 6-14, wherein the nucleobase sequence of the modified oligonucleotide is at least 85%, at least 90%, at least 95%, or 100% complementary to an equal length portion of the ATXN1 nucleic acid, wherein the ATXN1 nucleic acid has the nucleobase sequence of SEQ ID NO: 1, SEQ ID NO: 2, SEQ ID NO: 3, SEQ ID NO: 4, SEQ ID NO: 5, or SEQ ID NO: 6.
16. The oligomeric compound of any of claims 1-15, wherein at least one nucleoside of the modified oligonucleotide comprises a modified sugar moiety.
17. The oligomeric compound of claim 16, wherein the modified sugar moiety comprises a bicyclic sugar moiety.
18. The oligomeric compound of claim 17, wherein the bicyclic sugar moiety comprises a 2'-4' bridge selected from –O-CH_2-; and –O-CH(CH_3)-.
19. The oligomeric compound of any of claims 16-18, wherein the modified nucleoside comprises a non-bicyclic modified sugar moiety.
20. The oligomeric compound of claim 19, wherein the non-bicyclic modified sugar moiety is a 2'-MOE sugar moiety or 2'-OMe modified sugar moiety.
21. The oligomeric compound of any of claims 16-20, wherein at least one nucleoside of the modified oligonucleotide comprises a sugar surrogate.
22. The oligomeric compound of claim 21, wherein the sugar surrogate is selected from morpholino and PNA.
23. The oligomeric compound of any of claims 1-16 or 19-22, wherein the modified oligonucleotide does not comprise a bicyclic sugar moiety.

24. The oligomeric compound of any of claims 1-23, wherein the modified oligonucleotide comprises at least one modified internucleoside linkage.
25. The oligomeric compound of claim 24, wherein at least one modified internucleoside linkage is a phosphorothioate internucleoside linkage.
26. The oligomeric compound of claim 24 or 25, wherein each internucleoside linkage is a modified internucleoside linkage.
27. The oligomeric compound of claim 26, wherein each internucleoside linkage is a phosphorothioate internucleoside linkage.
28. The oligomeric compound of any of claims 24-25, wherein at least one internucleoside linkage of the modified oligonucleotide is a phosphodiester internucleoside linkage.
29. The oligomeric compound of any of claims 1-23, wherein each internucleoside linkage of the modified oligonucleotide is independently selected from a phosphodiester or a phosphorothioate internucleoside linkage.
30. The oligomeric compound of any of claims 1-29, wherein at least 10, at least 11, at least 12, at least 13, at least 14, at least 15, at least 16, at least 17, or at least 18 internucleoside linkages of the modified oligonucleotide are phosphorothioate internucleoside linkages.
31. The oligomeric compound of claim 21, wherein the modified oligonucleotide has an internucleoside linkage motif selected from: sooossssssssssssooss, sssossssssssssssosss, sssossssssssoss, or sooooossssssssssoss; wherein,

    s = a phosphorothioate internucleoside linkage and o = a phosphodiester internucleoside linkage.
32. The oligomeric compound of any of claims 1-31, wherein the modified oligonucleotide comprises a modified nucleobase.
33. The oligomeric compound of claim 32, wherein the modified nucleobase is a 5-methyl cytosine.
34. The oligomeric compound of any of claims 1-33, wherein the modified oligonucleotide comprises a deoxy region consisting of 5-12 contiguous 2'-deoxynucleosides.
35. The oligomeric compound of claim 34, wherein each nucleoside of the deoxy region is a 2'-β-D-deoxynucleoside.
36. The oligomeric compound of claim 34 or 35 wherein the deoxy region consists of 6, 7, 8, 9, 10, or 6-10 linked nucleosides.
37. The oligomeric compound of any of claims 34-36, wherein each nucleoside immediately adjacent to the deoxy region comprises a modified sugar moiety.
38. The oligomeric compound of any of claims 34-36, wherein the deoxy region is flanked on the 5'-side by a 5'-region consisting of 1-6 linked 5'-region nucleosides and on the 3'-side by a 3'external region consisting of 1-6 linked 3'-region nucleosides; wherein

    the 3'-most nucleoside of the 5'-region comprises a modified sugar moiety; and

    the 5'-most nucleoside of the 3'-region comprises a modified sugar moiety.
39. The oligomeric compound of claim 38, wherein each nucleoside of the 3'-region comprises a modified sugar moiety.
40. The oligomeric compound of claim 38 or 39, wherein each nucleoside of the 5'-region comprises a modified sugar moiety.

41. The oligomeric compound of claim 34-40, wherein the modified oligonucleotide has
a 5'-region consisting of 1-6 linked nucleosides;
a deoxy region consisting of 6-10 linked nucleosides; and
a 3'-region consisting of 1-6 linked nucleosides; wherein
each of the 5'-region nucleosides and each of the 3'-region nucleosides comprises a modified sugar moiety.
42. The oligomeric compound of claim 41, wherein the modified oligonucleotide has
a 5'-region consisting of 6 linked nucleosides;
a deoxy region consisting of 10 linked nucleosides; and
a 3'-region consisting of 4 linked nucleosides; wherein
each of the 5'-region nucleosides and each of the 3'-region nucleosides is a 2'-MOE nucleoside, and each of the deoxy region nucleosides is a 2'-β-D-deoxynucleoside.
43. The oligomeric compound of claim 41, wherein the modified oligonucleotide has
a 5'-region consisting of 5 linked nucleosides;
a central region consisting of 10 linked nucleosides; and
a 3'-region consisting of 5 linked nucleosides; wherein
each of the 5'-region nucleosides and each of the 3'-region nucleosides is a 2'-MOE nucleoside, and each of the deoxy region nucleosides is a 2'-β-D-deoxynucleoside.
44. The oligomeric compound of claim 41, wherein the modified oligonucleotide has
a 5'-region consisting of 5 linked nucleosides;
a deoxy region consisting of 8 linked nucleosides; and
a 3'-region consisting of 4 linked nucleosides; wherein
each of the 5'-region nucleosides and each of the 3'-region nucleosides is a 2'-MOE nucleoside, and each of the deoxy region nucleosides is a 2'-β-D-deoxynucleoside.
45. The oligomeric compound of claim 41, wherein the modified oligonucleotide has
a 5'-region consisting of 5 linked nucleosides;
a deoxy region consisting of 8 linked nucleosides; and
a 3'-region consisting of 4 linked nucleosides; wherein
each of the 5'-region nucleosides is a 2'-MOE nucleoside, each of the 3'-region nucleosides is selected from a 2'-MOE nucleoside and a cEt nucleoside, and each of the deoxy region nucleosides is a 2'-β-D-deoxynucleoside.
46. The oligomeric compound of any of claims 1-33, wherein the modified oligonucleotide has
a 5' region consisting of 3-7 linked nucleosides;
a deoxy region consisting of 6-8 linked nucleosides; and
a 3' region consisting of 3-6 linked nucleosides; wherein
each of the 3' region nucleosides is selected from a 2'-MOE nucleoside and a cEt nucleoside, and the 5' region has the following formula:
(Nk)n(Nd)(Nx)

wherein each Nk is a bicyclic nucleoside, Nx is a 2'-OMe nucleoside and Nd is a 2'-β-D-deoxynucleoside;

and n is from 1-5.

47. The oligomeric compound of any of claims 1-33, wherein the modified oligonucleotide has

a 5' region consisting of 7 linked nucleosides;

a deoxy region consisting of 6 linked nucleosides; and

a 3' region consisting of 4 linked nucleosides; wherein

each of the 3' region nucleosides is selected from a 2'-MOE nucleoside and a cEt nucleoside, and the 5' region has the following formula:

(Nk)n(Nd)(Nx)

wherein each Nk is a bicyclic nucleoside, Nx is a 2'-OMe nucleoside and Nd is a 2'-β-D-deoxynucleoside;

and n is from 5.

48. The oligomeric compound of any of claims 1-47, wherein the modified oligonucleotide consists of 12-30, 12-22, 12-20, 14-18, 16-18, 14-20, 15-17, 15-25, 16-20, or 17-20 linked nucleosides.

49. The oligomeric compound of any of claims 1-46, wherein the modified oligonucleotide consists of 18-22 or 18-20 linked nucleosides.

50. The oligomeric compound of any of claims 1-47, wherein the modified oligonucleotide consists of 17 linked nucleosides.

51. The oligomeric compound of any of claims 1-46, wherein the modified oligonucleotide consists of 20 linked nucleosides.

52. A compound comprising a modified oligonucleotide according to the following chemical notation:

Ges ^{m}Ceo Aeo ^{m}Ceo Ges Gds Tds Ads Tds Tds Ads Gds Tds Gds Tds ^{m}Ceo Teo Tes ^{m}Ces Ae (SEQ ID NO: 126), wherein,

A = an adenine nucleobase,

^{m}C = a 5-methyl cytosine nucleobase,

G = a guanine nucleobase,

T = a thymine nucleobase,

e = a 2'-MOE sugar moiety,

d = a 2'-β-D deoxyribosyl sugar moiety,

s = a phosphorothioate internucleoside linkage, and

o = a phosphodiester internucleoside linkage.

53. A compound comprising a modified oligonucleotide according to the following chemical notation:

Ges ^{m}Ceo Teo Teo ^{m}Ces Tds ^{m}Cds Ads Ads Ads Tds ^{m}Cds Ads Gds Gds Teo Geo Tes Aes mCe (SEQ ID NO: 1045), wherein,

A = an adenine nucleobase,

^{m}C = a 5-methyl cytosine nucleobase,

G = a guanine nucleobase,

T = a thymine nucleobase,

e = a 2'-MOE sugar moiety,

d = a 2'-β-D deoxyribosyl sugar moiety,

s = a phosphorothioate internucleoside linkage, and

o = a phosphodiester internucleoside linkage.

54. A compound comprising a modified oligonucleotide according to the following chemical notation:

Ges ^{m}Ceo ^{m}Ceo Teo Tes Tds Ads Tds Ads Ads ^{m}Cds Tds Tds Tds Tds ^{m}Ceo Teo Tes Tes ^{m}Ce (SEQ ID NO: 2552), wherein,

A = an adenine nucleobase,

^{m}C = a 5-methyl cytosine nucleobase,

G = a guanine nucleobase,

T = a thymine nucleobase,

e = a 2'-MOE sugar moiety,

d = a 2'-β-D deoxyribosyl sugar moiety,

s = a phosphorothioate internucleoside linkage, and

o = a phosphodiester internucleoside linkage.

55. A compound comprising a modified oligonucleotide according to the following chemical notation:

Tes Teo ^{m}Ceo Aeo Ges Tds Tds Tds Ads Gds Tds Tds Gds ^{m}Cds Ads Geo ^{m}Ceo ^{m}Ces Aes Te (SEQ ID NO: 3190), wherein,

A = an adenine nucleobase,

^{m}C = a 5-methyl cytosine nucleobase,

G = a guanine nucleobase,

T = a thymine nucleobase,

e = a 2'-MOE sugar moiety,

d = a 2'-β-D deoxyribosyl sugar moiety,

s = a phosphorothioate internucleoside linkage, and

o = a phosphodiester internucleoside linkage.

56. A compound comprising a modified oligonucleotide according to the following chemical notation:

^{m}Ces ^{m}Ceo ^{m}Ceo Geo Tes Ads Tds Tds ^{m}Cds ^{m}Cds Tds ^{m}Cds Tds Tds Ads ^{m}Ceo ^{m}Ceo Aes Tes ^{m}Ce (SEQ ID NO: 3590), wherein,

A = an adenine nucleobase,

^{m}C = a 5-methyl cytosine nucleobase,

G = a guanine nucleobase,

T = a thymine nucleobase,

e = a 2'-MOE sugar moiety,

d = a 2'-β-D deoxyribosyl sugar moiety,

s = a phosphorothioate internucleoside linkage, and

o = a phosphodiester internucleoside linkage.

57. A compound comprising a modified oligonucleotide according to the following chemical notation:

Tes ^{m}Ces Aes Geo Tes Tds Tds Ads Gds Tds Tds Gds ^{m}Cds Aeo Ges ^{m}Ces ^{m}Ce (SEQ ID NO: 3638), wherein,

A = an adenine nucleobase,

^{m}C = a 5-methyl cytosine nucleobase,

G = a guanine nucleobase,

T = a thymine nucleobase,

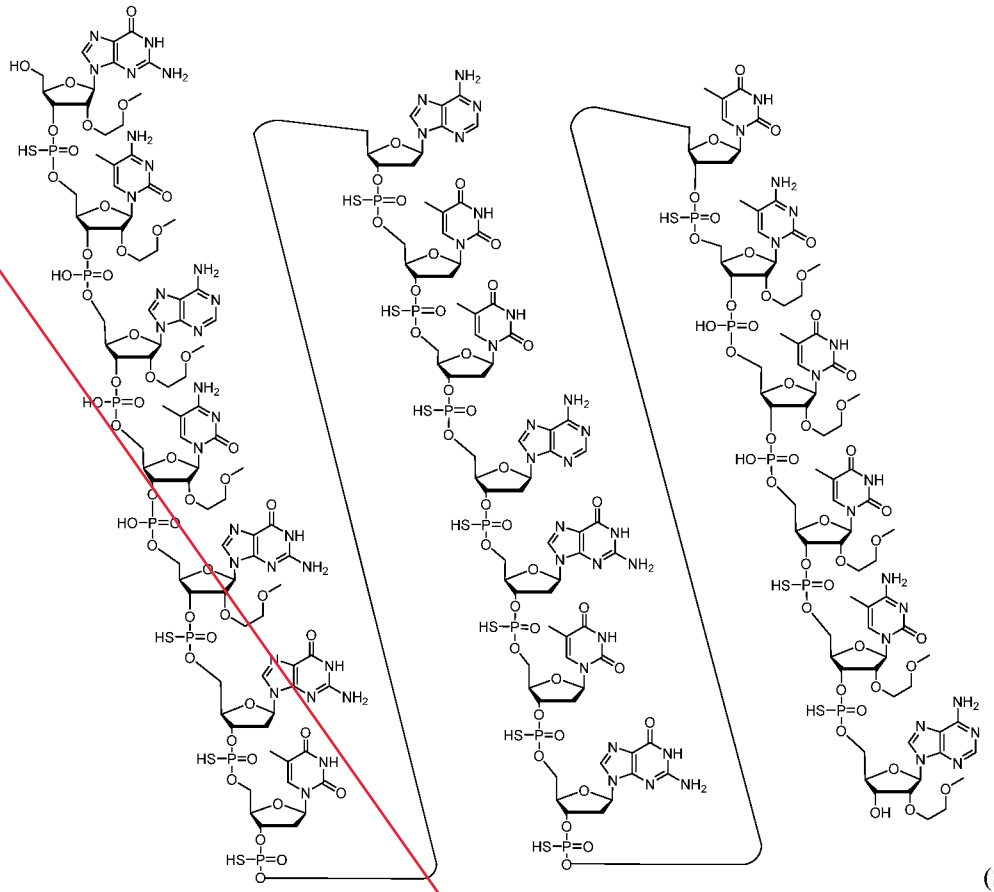
e = a 2'-MOE sugar moiety,

d = a 2'-β-D deoxyribosyl sugar moiety,

s = a phosphorothioate internucleoside linkage, and

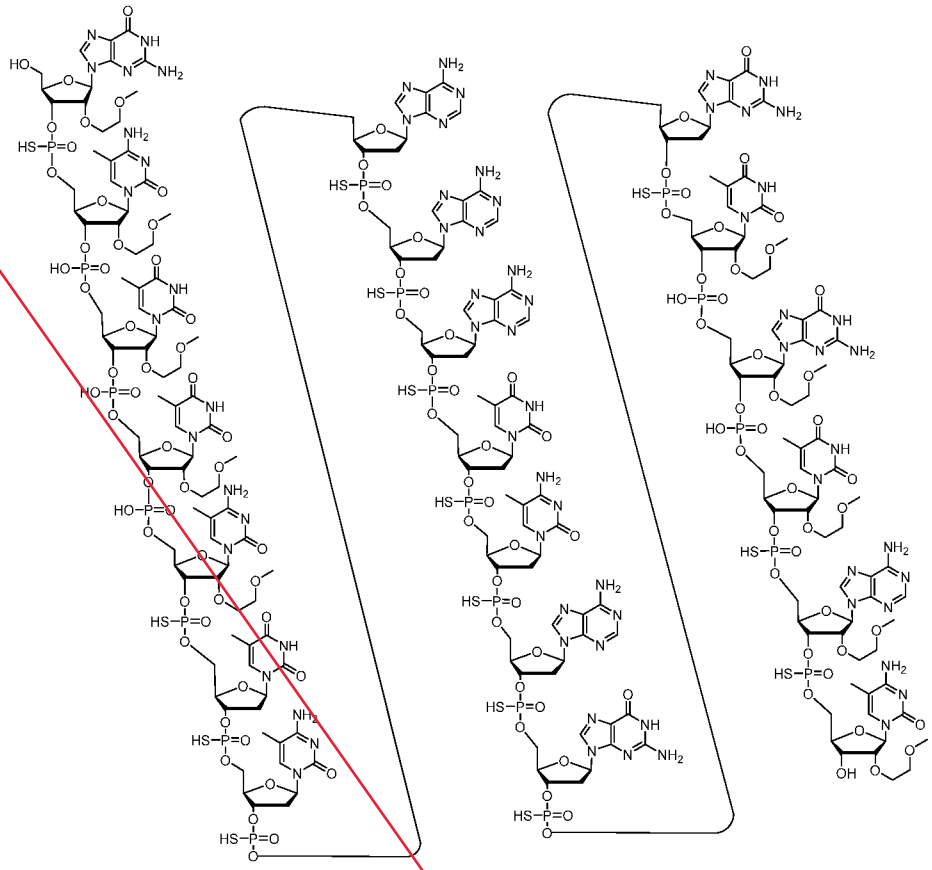
o = a phosphodiester internucleoside linkage.

58. The oligomeric compound of any of claims 1-57, consisting of the modified oligonucleotide.
59. The oligomeric compound of any of claims 1-58, comprising a conjugate group comprising a conjugate moiety and a conjugate linker.
60. The oligomeric compound of claim 59, wherein the conjugate linker consists of a single bond.
61. The oligomeric compound of claim 59, wherein the conjugate linker is cleavable.
62. The oligomeric compound of claim 59, wherein the conjugate linker comprises 1-3 linker nucleosides.
63. The oligomeric compound of any of claims 59-61, wherein the conjugate linker does not comprise any linker nucleosides.
64. The oligomeric compound of any of claims 59-62, wherein the conjugate group is attached to the modified oligonucleotide at the 5'-end of the modified oligonucleotide.
65. The oligomeric compound of any of claims 59-62, wherein the conjugate group is attached to the modified oligonucleotide at the 3'-end of the modified oligonucleotide.
66. The oligomeric compound of any of claims 1-57 or 60-65, comprising a terminal group.
67. The oligomeric compound of claim 66, wherein the terminal group is an abasic sugar moiety.
68. The oligomeric compound of any of claims 1-67 wherein the oligomeric compound is a singled-stranded oligomeric compound.
69. A modified oligonucleotide according to the following chemical structure:



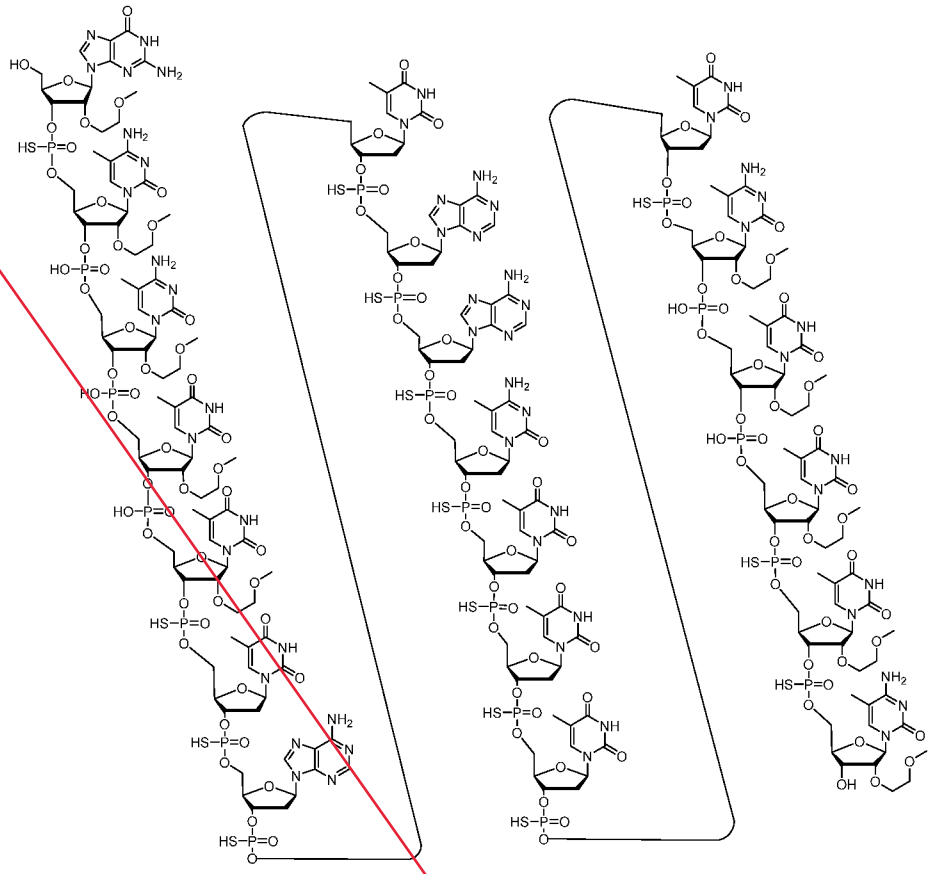
(SEQ ID NO: 126), or a salt thereof.

70. A modified oligonucleotide according to the following chemical structure:



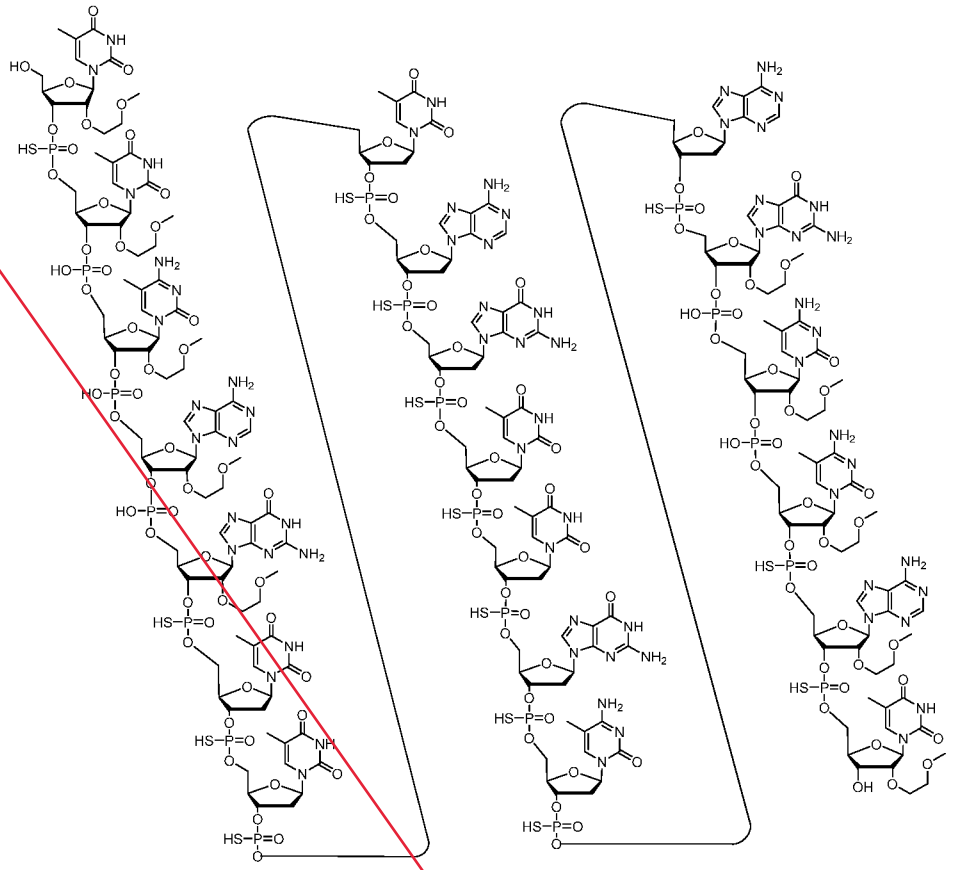
(SEQ ID NO: 1045), or a salt thereof.

71. A modified oligonucleotide according to the following chemical structure:



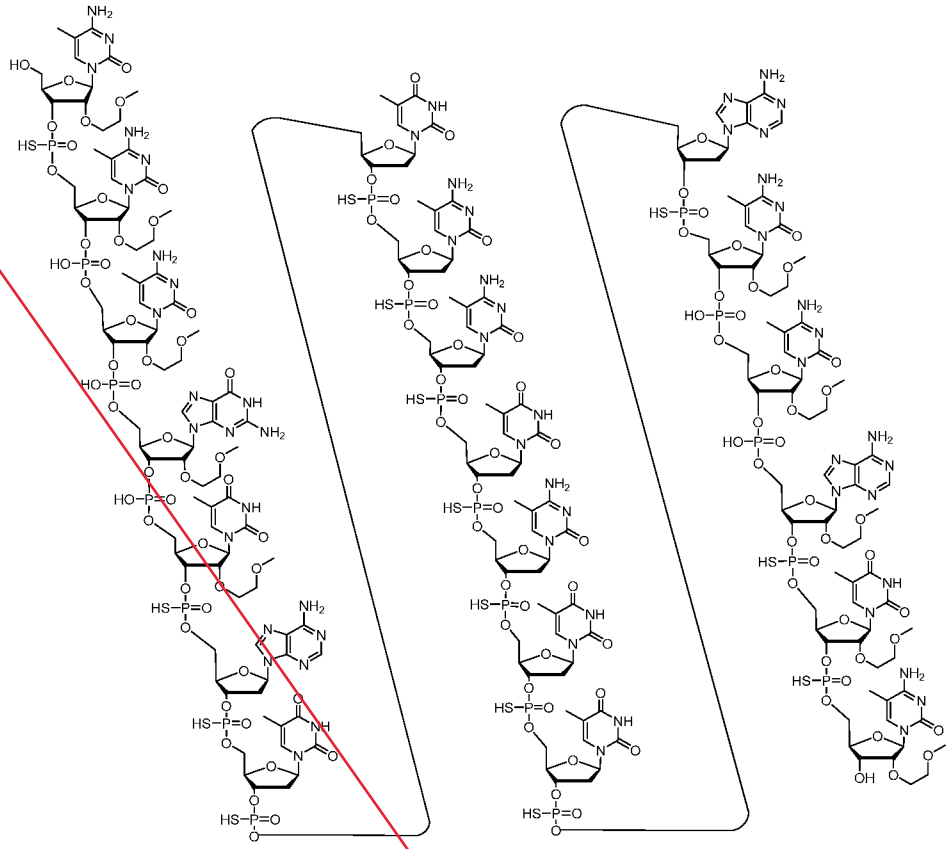
(SEQ ID NO: 2552), or a salt thereof.

72. A modified oligonucleotide according to the following chemical structure:



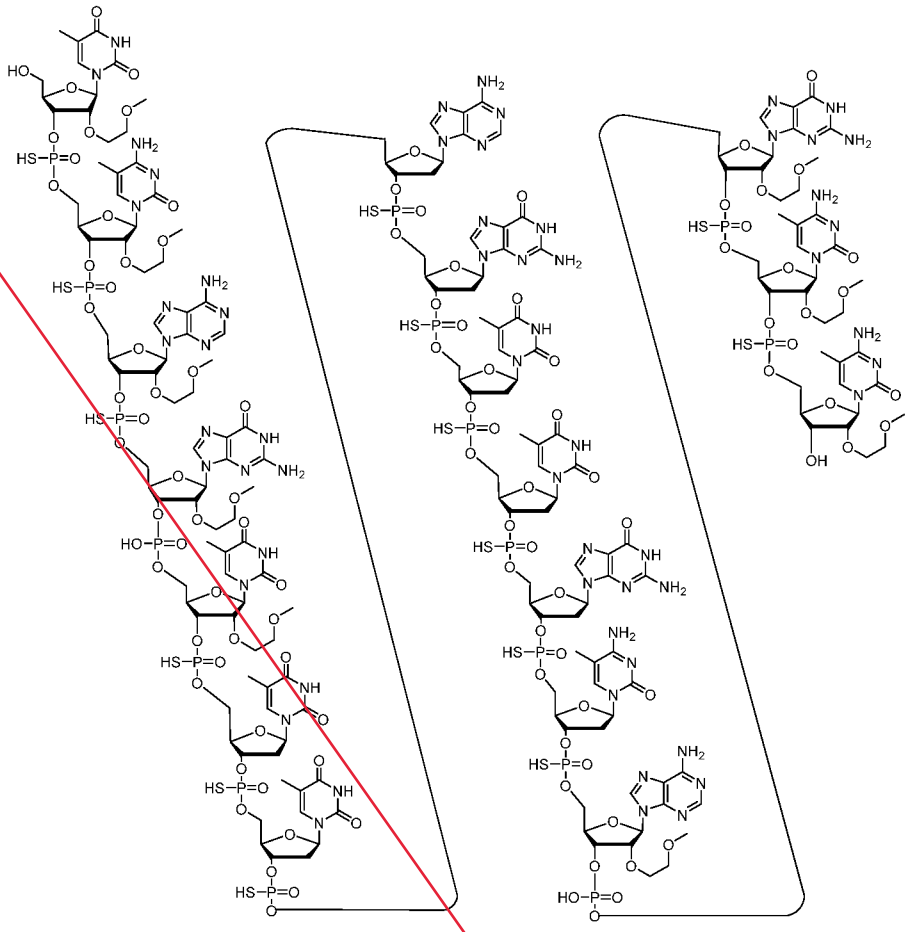
(SEQ ID NO: 3190), or a salt thereof.

73. A modified oligonucleotide according to the following chemical structure:



(SEQ ID NO: 3590), or a salt thereof.

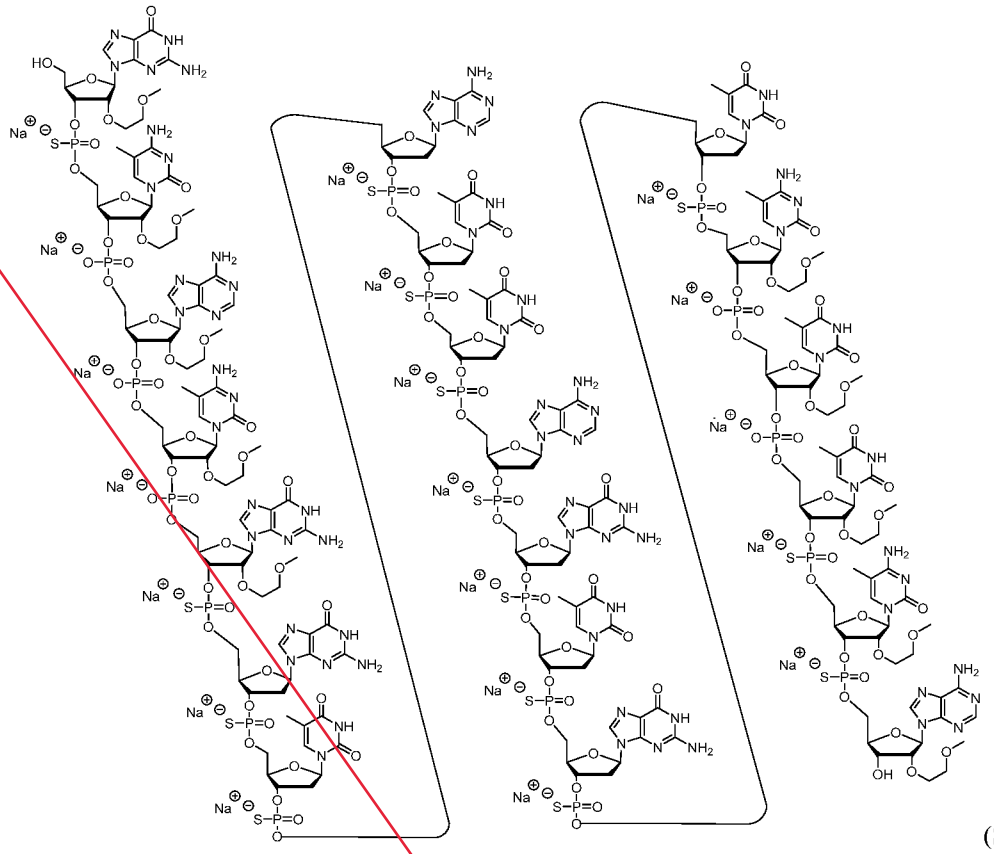
74. A modified oligonucleotide according to the following chemical structure:



(SEQ ID NO: 3638), or a salt thereof.

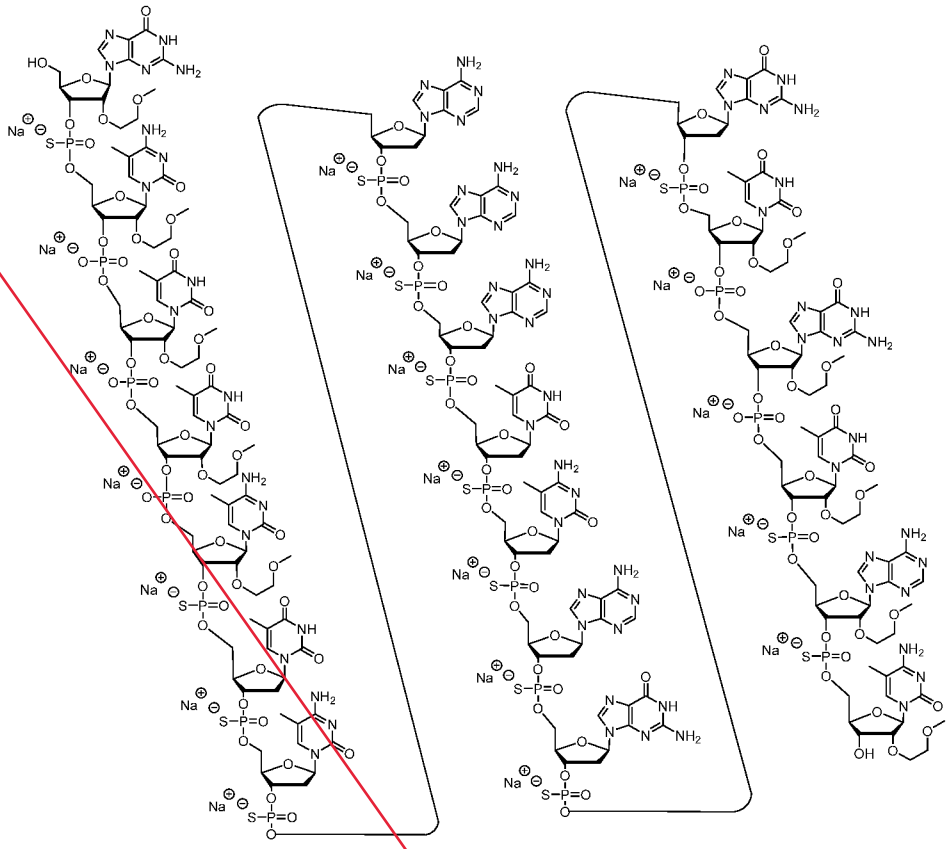
75. The modified oligonucleotide of any of claims 69-74, which is the sodium salt or the potassium salt.

76. A modified oligonucleotide according to the following chemical structure:



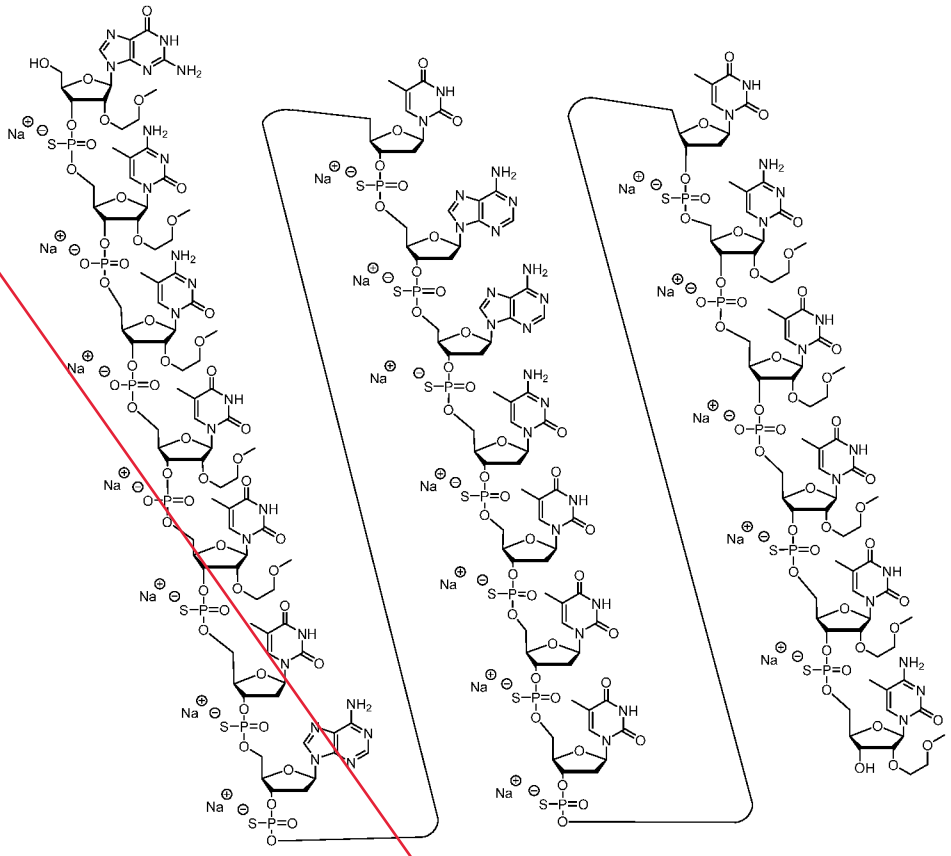
(SEQ ID NO: 126).

77. A modified oligonucleotide according to the following chemical structure:



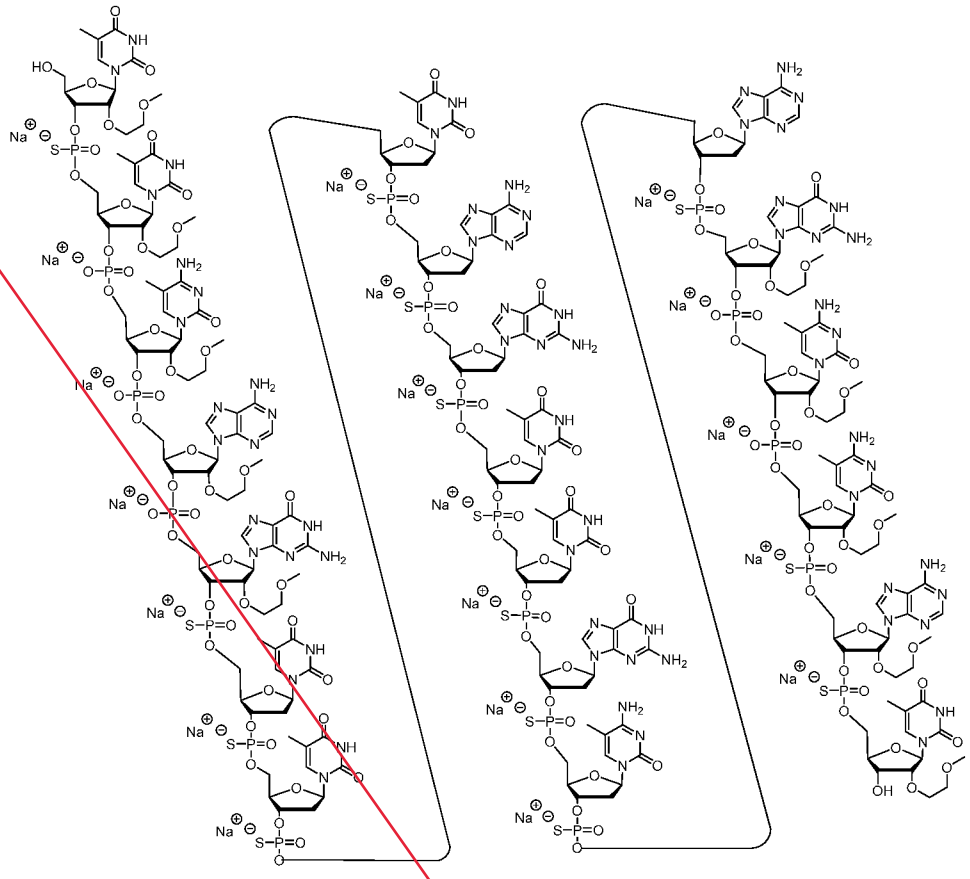
(SEQ ID NO: 1045).

78. A modified oligonucleotide according to the following chemical structure:



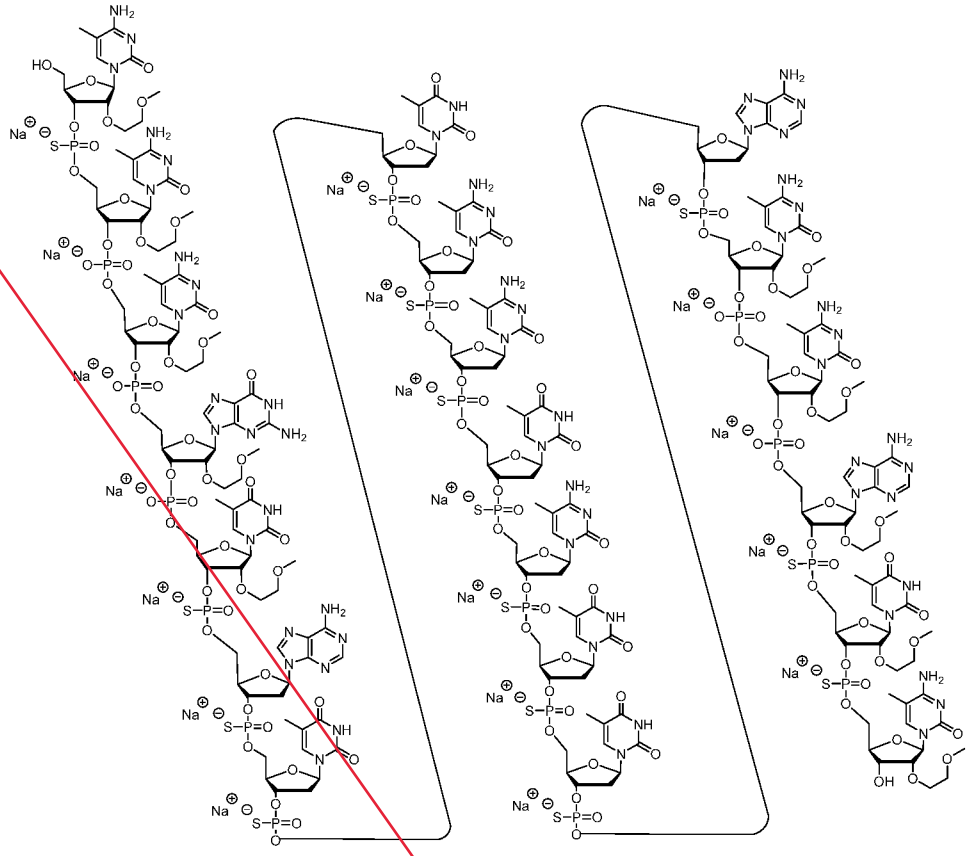
(SEQ ID NO: 2552).

79. A modified oligonucleotide according to the following chemical structure:



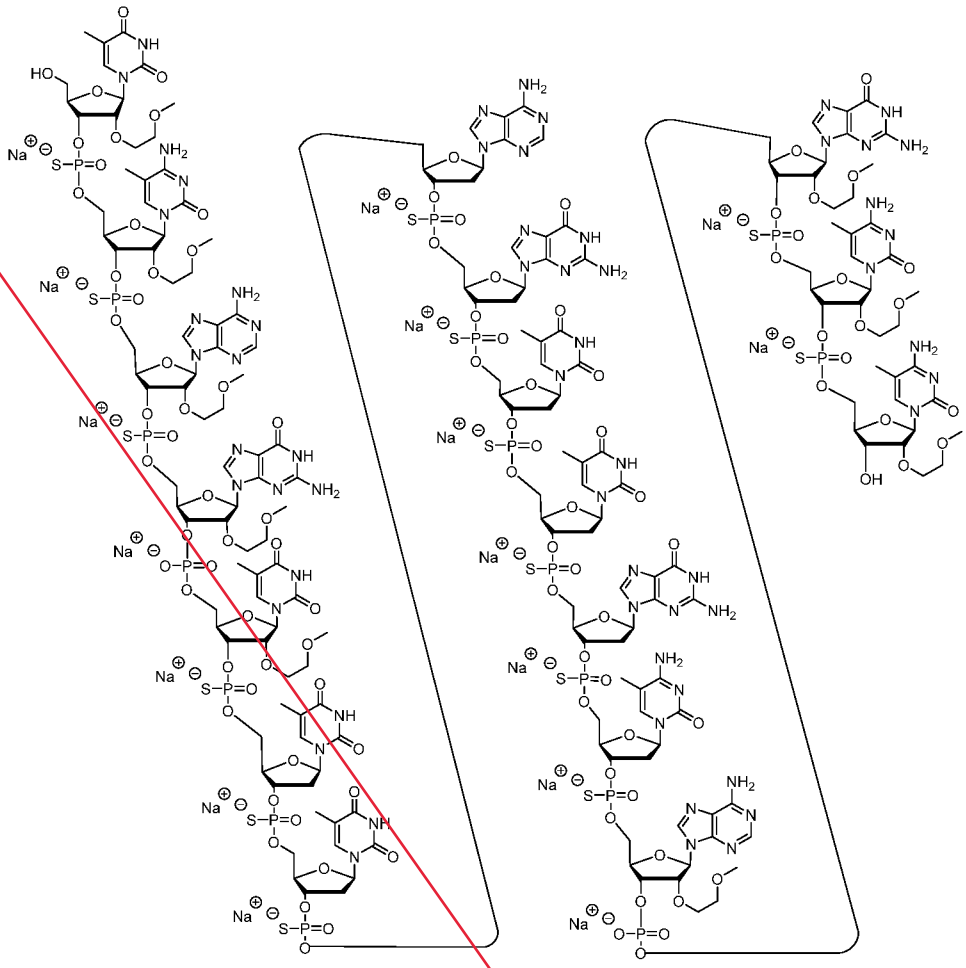
(SEQ ID NO: 3190).

80. A modified oligonucleotide according to the following chemical structure:



(SEQ ID NO: 3590).

81. A modified oligonucleotide according to the following chemical structure:



(SEQ ID NO: 3638).

82. A chirally enriched population of oligomeric compounds of any of claims 1-68 or modified oligonucleotide of claims 69-81, wherein the population is enriched for modified oligonucleotides comprising at least one particular phosphorothioate internucleoside linkage having a particular stereochemical configuration.
83. The chirally enriched population of claim 82, wherein the population is enriched for modified oligonucleotides comprising at least one particular phosphorothioate internucleoside linkage having the *(Sp)* or *(Rp)* configuration.
84. The chirally enriched population of claim 83, wherein the population is enriched for modified oligonucleotides having a particular, independently selected stereochemical configuration at each phosphorothioate internucleoside linkage.
85. The chirally enriched population of claim 84, wherein the population is enriched for modified oligonucleotides having the *(Rp)* configuration at one particular phosphorothioate internucleoside linkage and the *(Sp)* configuration at each of the remaining phosphorothioate internucleoside linkages.
86. The chirally enriched population of claim 85, wherein the population is enriched for modified oligonucleotides having at least 3 contiguous phosphorothioate internucleoside linkages in the *Sp*, *Sp*, and *Rp* configurations, in the 5' to 3' direction.

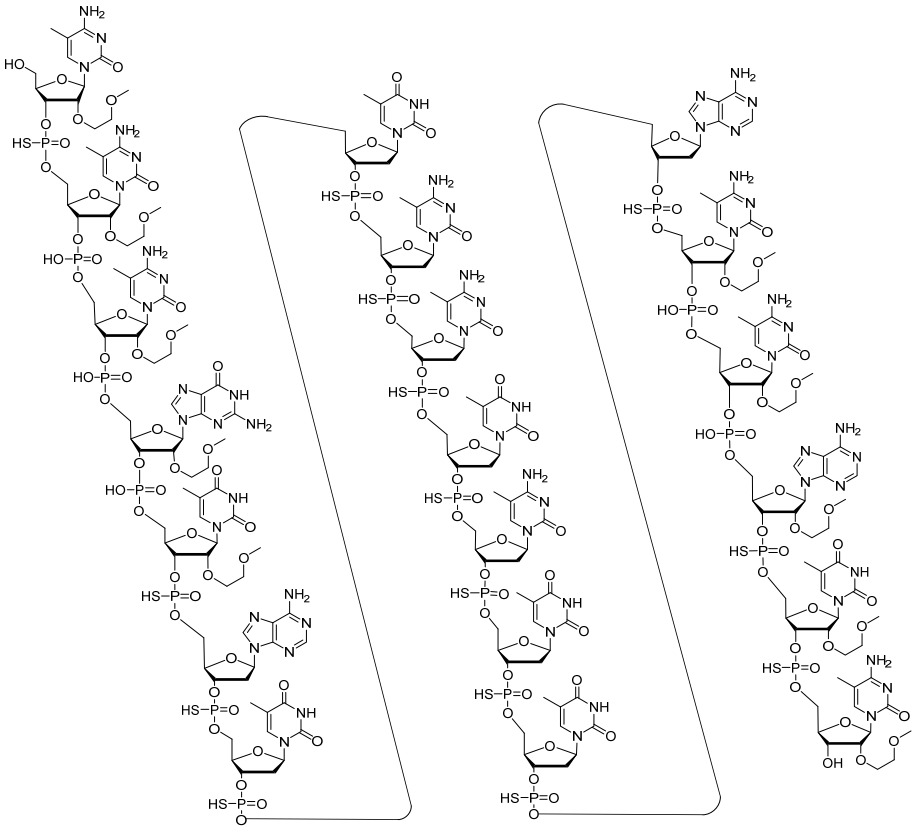
87. A population of oligomeric compounds comprising modified oligonucleotides of any of claims 1-68, or a population of modified oligonucleotides of claims 69-81, wherein all of the phosphorothioate internucleoside linkages of the modified oligonucleotide are stereorandom.
88. An oligomeric duplex, comprising a first oligomeric compound and a second oligomeric compound comprising a second modified oligonucleotide, wherein the first oligomeric compound is an oligomeric compound of any of claims 1-68.
89. The oligomeric duplex of claim 88, wherein the second oligomeric compound comprises a second modified oligonucleotide consisting of 12 to 30 linked nucleosides, and wherein the nucleobase sequence of the second modified oligonucleotide comprises a complementary region of at least 8 nucleobases that is at least 90% complementary to an equal length portion of the first modified oligonucleotide.
90. The oligomeric duplex of claim 88 or 89, wherein the modified oligonucleotide of the first oligomeric compound comprises a 5'-stabilized phosphate group.
91. The oligomeric duplex of claim 90, wherein the stabilized phosphate group comprises a cyclopropyl phosphonate or a vinyl phosphonate.
92. The oligomeric duplex of any of claims 88-91, wherein the modified oligonucleotide of the first oligomeric compound comprises a glycol nucleic acid (GNA) sugar surrogate.
93. The oligomeric duplex of any of claims 88-92, wherein the modified oligonucleotide of the first oligomeric compound comprises a 2'-NMA sugar moiety.
94. The oligomeric duplex of any of claims 88-93, wherein at least one nucleoside of the second modified oligonucleotide comprises a modified sugar moiety.
95. The oligomeric duplex of claim 94, wherein the modified sugar moiety of the second modified oligonucleotide comprises a bicyclic sugar moiety.
96. The oligomeric duplex of claim 95, wherein the bicyclic sugar moiety of the second modified oligonucleotide comprises a 2'-4' bridge selected from –O-CH_2-; and –O-$CH(CH_3)$-.
97. The oligomeric duplex of claim 96, wherein the modified sugar moiety of the second modified oligonucleotide comprises a non-bicyclic modified sugar moiety.
98. The oligomeric duplex of claim 97, wherein the non-bicyclic modified sugar moiety of the second modified oligonucleotide is a 2'-MOE sugar moiety, a 2'-F sugar moiety, or 2'-OMe sugar moiety.
99. The oligomeric duplex of any of claims 88-98, wherein at least one nucleoside of the second modified oligonucleotide comprises a sugar surrogate.
100. The oligomeric duplex of any of claims 88-99, wherein at least one internucleoside linkage of the second modified oligonucleotide is a modified internucleoside linkage.
101. The oligomeric duplex of claim 100, wherein at least one modified internucleoside linkage of the second modified oligonucleotide is a phosphorothioate internucleoside linkage.
102. The oligomeric duplex of any of claims 88-101, wherein at least one internucleoside linkage of the second modified oligonucleotide is a phosphodiester internucleoside linkage.
103. The oligomeric duplex of any of claims 88-102, wherein each internucleoside linkage of the second modified oligonucleotide is independently selected from a phosphodiester or a phosphorothioate internucleoside linkage.

104. The oligomeric duplex of any of claims 88-103, wherein each internucleoside linkage of the second modified oligonucleotide is independently selected from a phosphodiester internucleoside linkage, a phosphorothioate internucleoside linkage, or a mesyl phosphoramidate internucleoside linkage.
105. The oligomeric duplex of any of claims 88-104, wherein the second modified oligonucleotide comprises at least one modified nucleobase.
106. The oligomeric duplex of claim 105, wherein the modified nucleobase of the second modified oligonucleotide is 5-methylcytosine.
107. The oligomeric duplex of any of claims 88-106, wherein the second modified oligonucleotide comprises a conjugate group.
108. The oligomeric duplex of claim 107, wherein the conjugate group comprises a conjugate linker and a conjugate moiety.
109. The oligomeric duplex of claim 108 or 109, wherein the conjugate group is attached to the second modified oligonucleotide at the 5'-end of the second modified oligonucleotide.
110. The oligomeric duplex of claim 108 or 109, wherein the conjugate group is attached to the second modified oligonucleotide at the 3'-end of the modified oligonucleotide.
111. The oligomeric duplex of any of claims 108-111, wherein the second modified oligonucleotide comprises a terminal group.
112. The oligomeric duplex of claim 112, wherein the terminal group is an abasic sugar moiety.
113. The oligomeric duplex of any of claims 88-113, wherein the second modified oligonucleotide consists of 10 to 25, 10 to 30, 10 to 50, 12 to 20, 12 to 25, 12 to 30, 12 to 50, 13 to 20, 13 to 25, 13 to 30, 13 to 50, 14 to 20, 14 to 25, 14 to 30, 14 to 50, 15 to 20, 15 to 25, 15 to 30, 15 to 50, 16 to 18,16 to 20, 16 to 25, 16 to 30, 16 to 50, 17 to 20, 17 to 25, 17 to 30, 17 to 50, 18 to 20, 18 to 25, 18 to 30, 18 to 50, 19 to 20, 19 to 25, 19 to 30, 19 to 50, 20 to 25, 20 to 30, 20 to 50, 21 to 25, 21 to 30, 21 to 50, 22 to 25, 22 to 30, 22 to 50, 23 to 25, 23 to 30, or 23 to 50 linked nucleosides.
114. An antisense agent comprising an antisense compound, wherein the antisense compound is the oligomeric compound of any of claims 1-68 or the modified oligonucleotide of any of claims 69-81.
115. The antisense agent of claim 115, wherein the antisense agent is the oligomeric duplex of any of claims 88-113.
116. The antisense agent of claim 115 or 116, wherein the antisense agent is an RNase H agent capable of reducing the amount of ATXN1 nucleic acid through the activation of RNase H.
117. The antisense agent of any of claims 115-117, wherein the conjugate group comprises a cell-targeting moiety.
118. A pharmaceutical composition comprising an oligomeric compound of any of claims 1-68, the modified oligonucleotide of any of claims 69-81, the population of any of claims 82-87, an oligomeric duplex of any of claims 88-114, or an antisense agent of any of claims 115-117, and a pharmaceutically acceptable carrier or diluent.
119. The pharmaceutical composition of claim 118, wherein the pharmaceutically acceptable diluent is water, phosphate-buffered saline, or artificial cerebral spinal fluid.
120. The pharmaceutical composition of claim 119, wherein the pharmaceutical composition consists essentially of the modified oligonucleotide and artificial cerebral spinal fluid.

121. A method comprising administering to a subject the oligomeric compound of any of claims 1-68, the modified oligonucleotide of any of claims 69-81, the population of any of claims 82-87, the oligomeric duplex of any of claims 88-114, the antisense agent of any of claims 115-117, or the pharmaceutical composition of any of claims 118-120.
122. A method of treating a disease associated with ATXN1 comprising administering to a subject having a disease associated with ATXN1 a therapeutically effective amount of the oligomeric compound of any of claims 1-68, the modified oligonucleotide of any of claims 69-81, the population of any of claims 82-87, the oligomeric duplex of any of claims 88-114, the antisense agent of any of claims 115-117, or the pharmaceutical composition of any of claims 118-120; thereby treating the disease associated with ATXN1.
123. The method of claim 122, wherein the ATXN1-associated disease is Spinocerebellar ataxia type 1.
124. The method of any of claims 122-123, wherein at least one symptom or hallmark of the ATXN1-associated disease is ameliorated.
125. The method of claim 124, wherein the symptom or hallmark is gait or limb ataxia, cognitive impairments, difficulty with speaking or swallowing, atrophy of the cerebellum and/or brainstem in magnetic resonance imaging (MRI), neurochemical abnormalities in the cerebellum and/or brainstem detected via magnetic resonance spectroscopy (MRS), or death within 10-15 years of symptom onset.
126. The method of any of claims 122-125, wherein ATXN1 levels in the subject are reduced.
127. A method of reducing expression of ATXN1 in a cell comprising contacting the cell with the oligomeric compound of any of claims 1-68, the modified oligonucleotide of any of claims 69-81, the population of any of claims 82-87, the oligomeric duplex of any of claims 88-114, the antisense agent of any of claims 115-117, or the pharmaceutical composition of any of claims 118-120.
128. The method of claim 127, wherein the cell is a CNS cell.
129. Use of the oligomeric compound of any of claims 1-68, the modified oligonucleotide of any of claims 69-81, the population of any of claims 82-87, the oligomeric duplex of any of claims 88-114, the antisense agent of any of claims 115-117, or the pharmaceutical composition of any of claims 118-120 for treating a disease associated with ATXN1.
130. Use of the oligomeric compound of any of claims 1-68, the modified oligonucleotide of any of claims 69-81, the population of any of claims 82-87, the oligomeric duplex of any of claims 88-114, the antisense agent of any of claims 115-117, or the pharmaceutical composition of any of claims 118-120 in the manufacture of a medicament for treating a disease associated with ATXN1.
131. The use of claim 129 or 130, wherein the disease associated with ATXN1 is Spinocerebellar ataxia type 1.

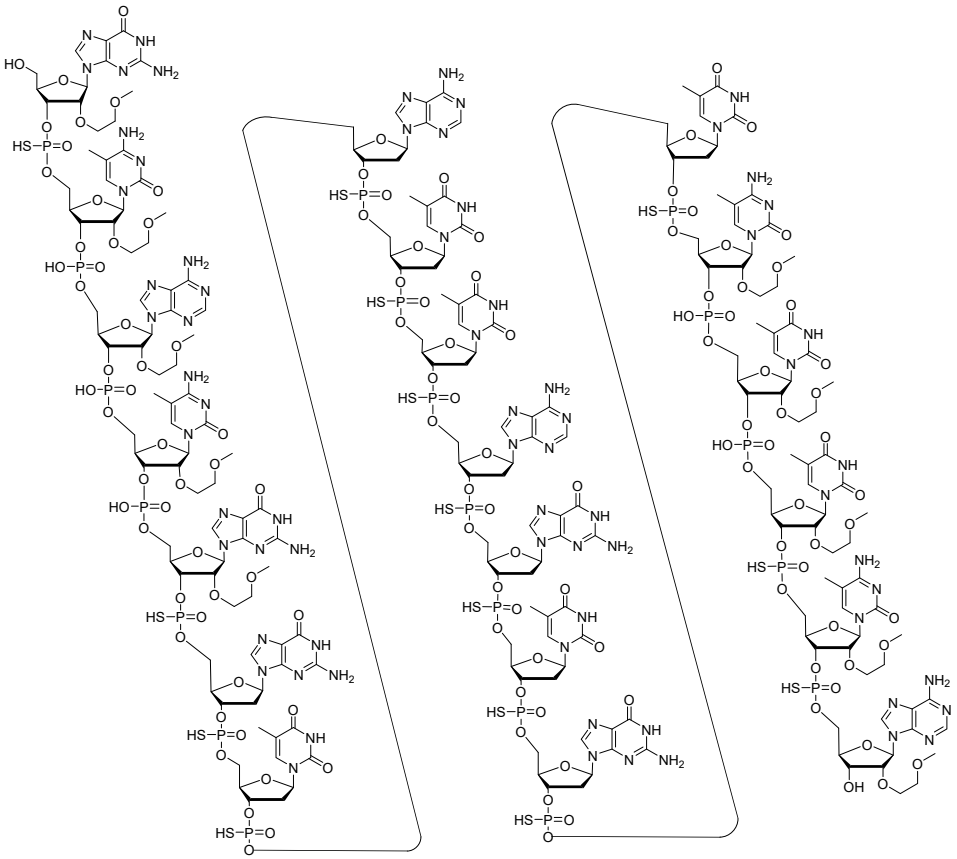
CLAIMS:

1. A modified oligonucleotide according to the following chemical structure:



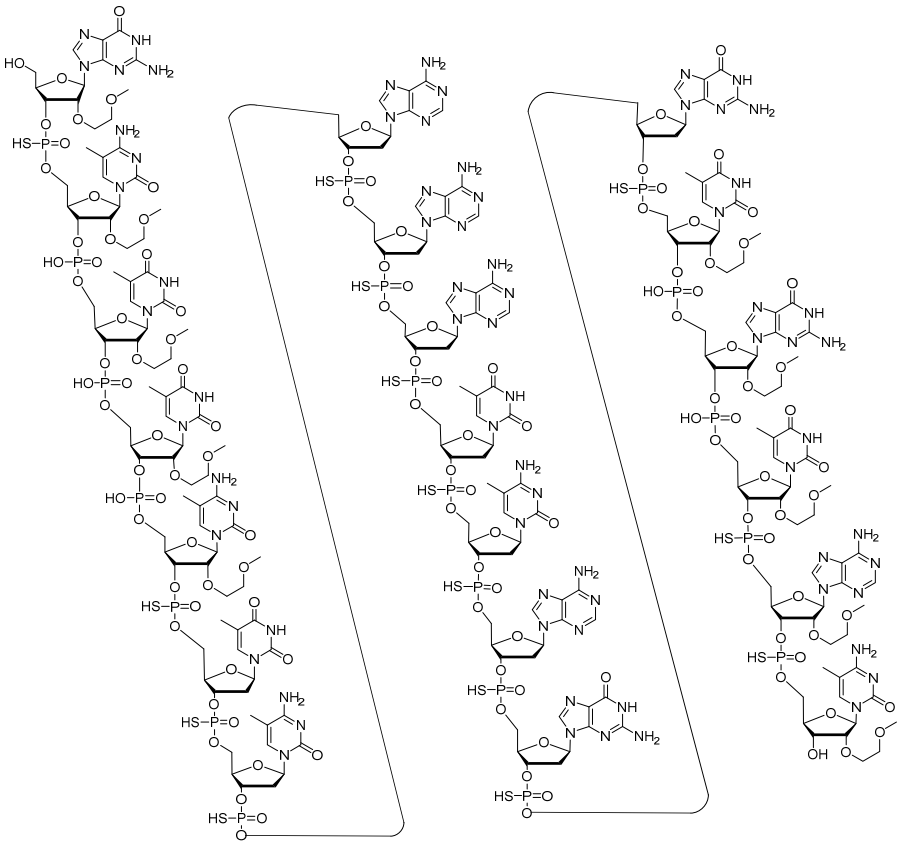
(SEQ ID NO: 3590), or a salt thereof.

2. A modified oligonucleotide according to the following chemical structure:



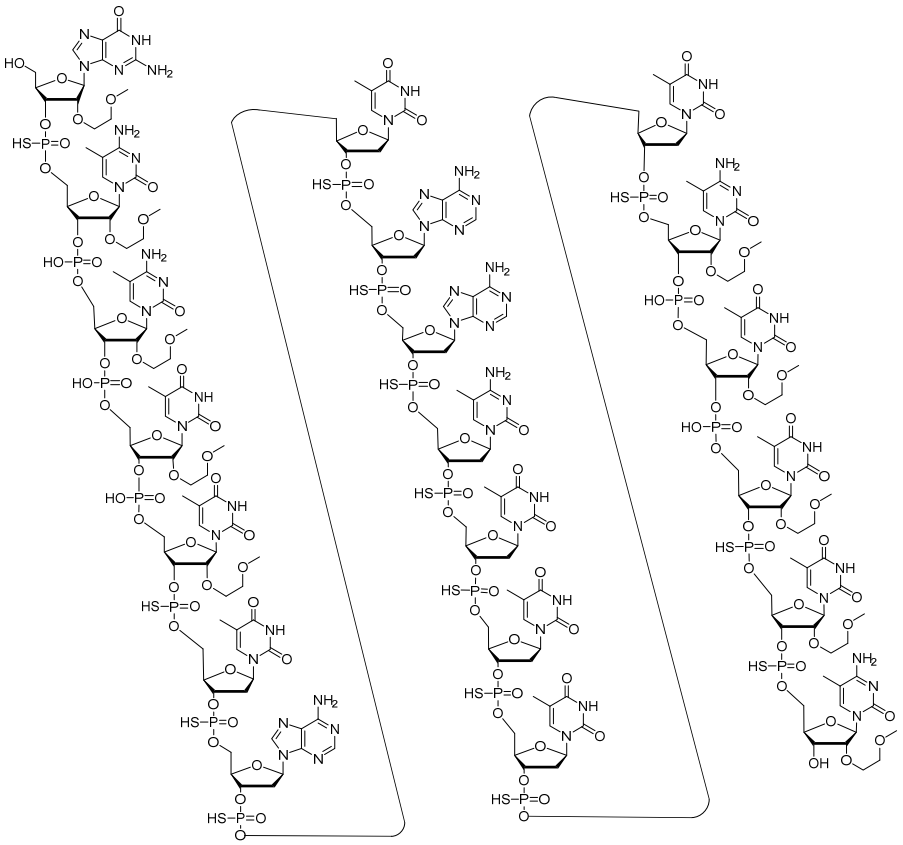
(SEQ ID NO: 126), or a salt thereof.

3. A modified oligonucleotide according to the following chemical structure:



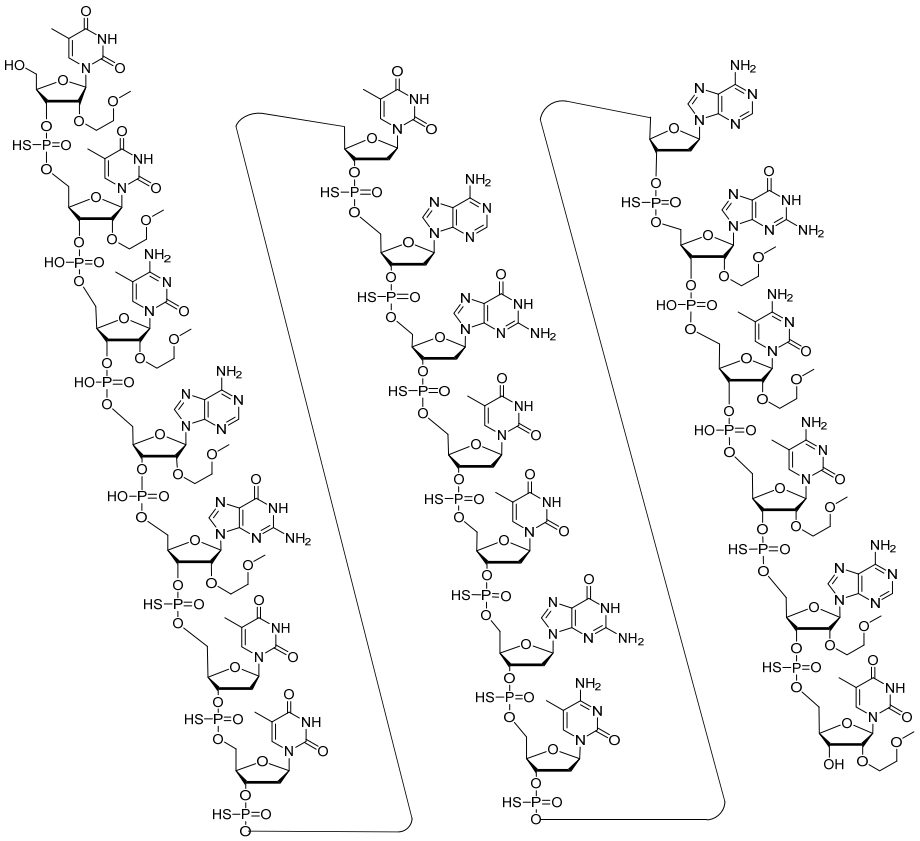
(SEQ ID NO: 1045), or a salt thereof.

4. A modified oligonucleotide according to the following chemical structure:



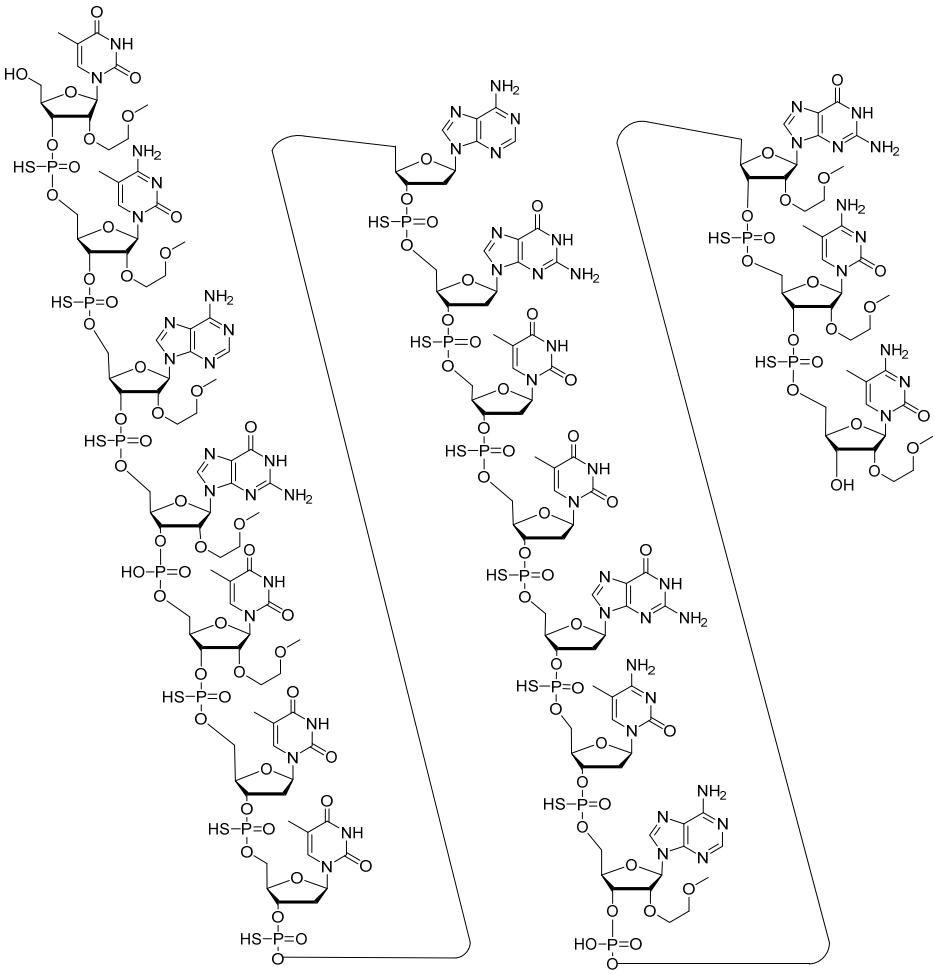
(SEQ ID NO: 2552), or a salt thereof.

5. A modified oligonucleotide according to the following chemical structure:



(SEQ ID NO: 3190), or a salt thereof.

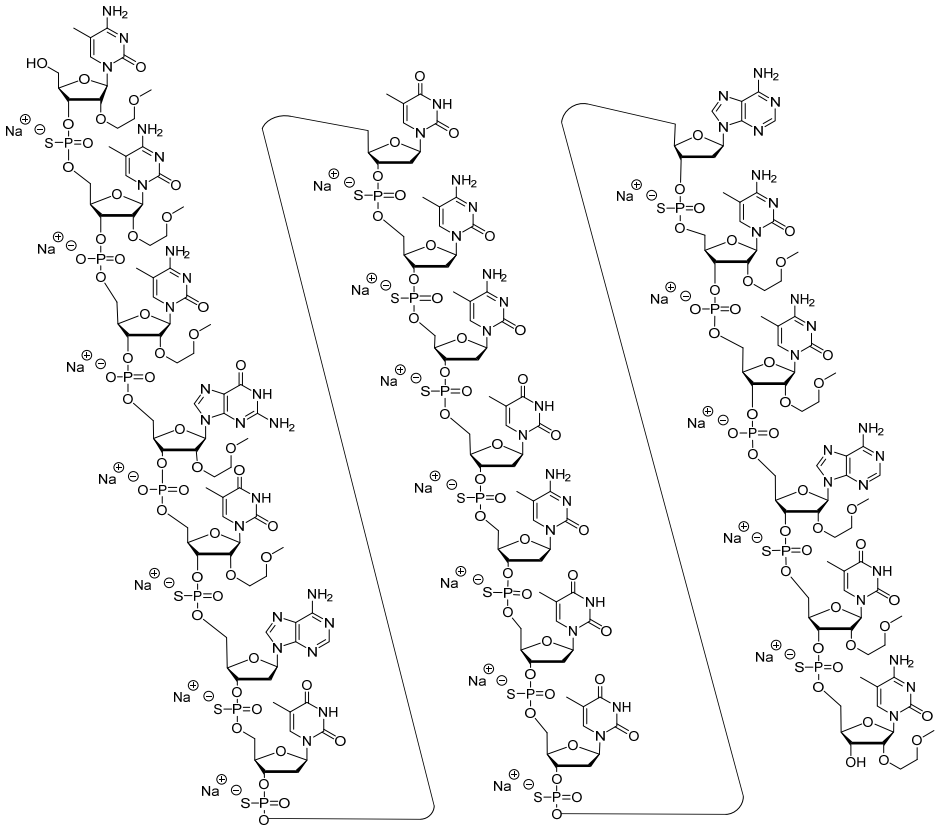
6. A modified oligonucleotide according to the following chemical structure:



(SEQ ID NO: 3638), or a salt thereof.

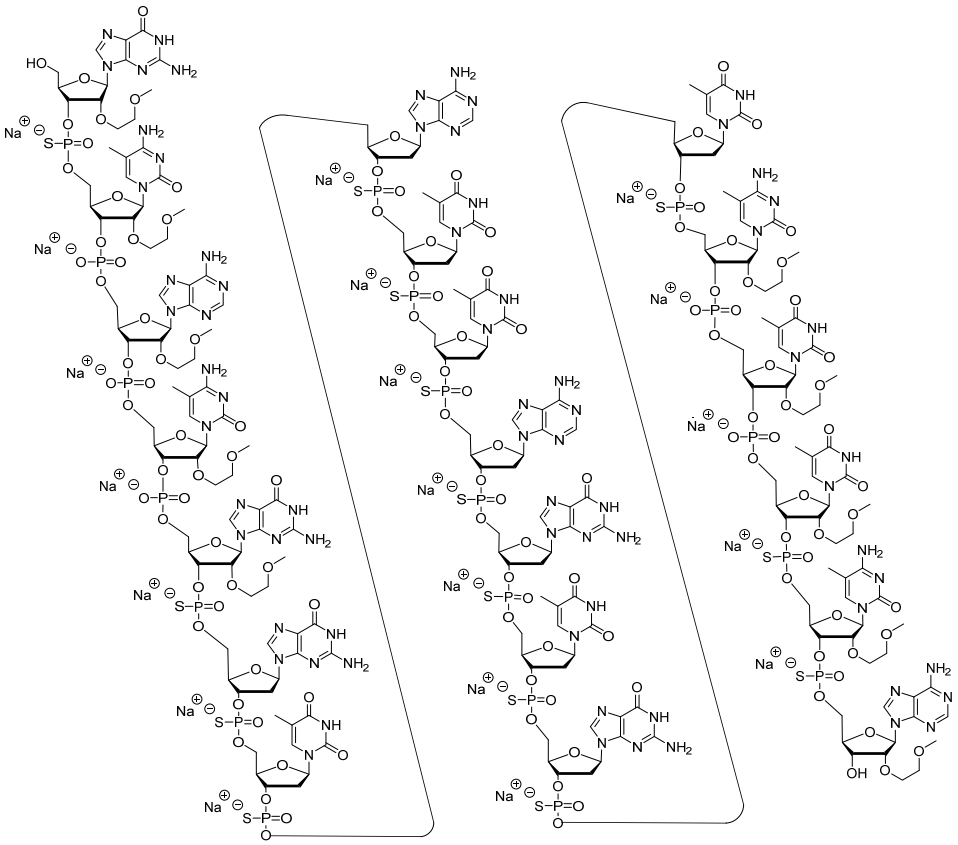
7. The modified oligonucleotide of any of claims 1-6, which is the sodium salt or the potassium salt.

8. A modified oligonucleotide according to the following chemical structure:



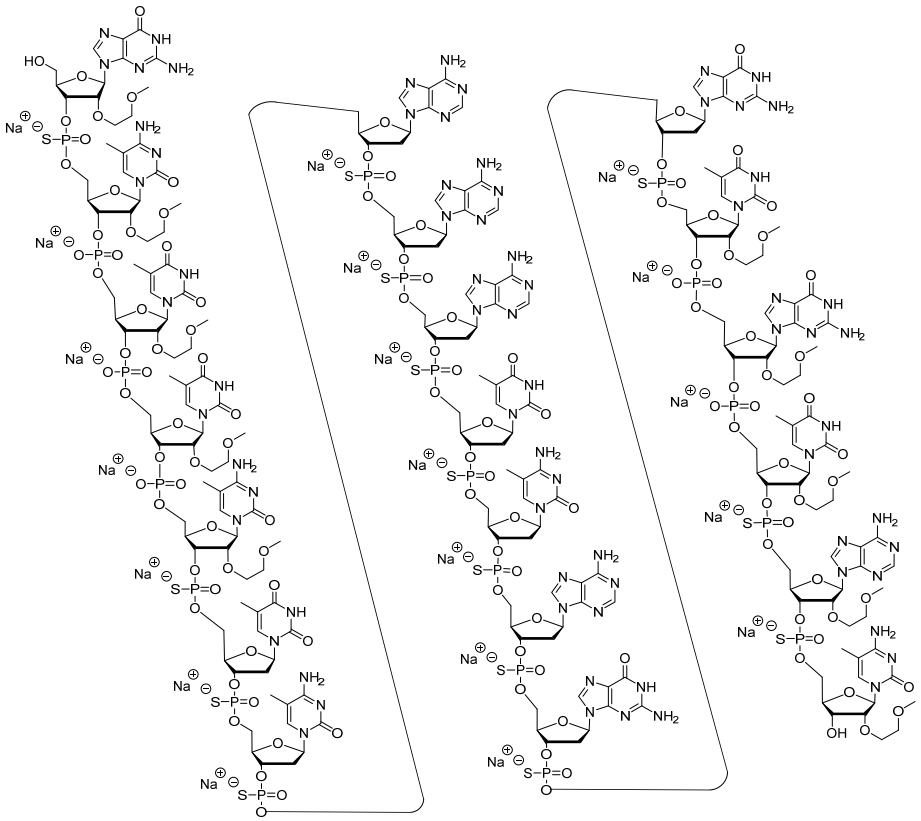
(SEQ ID NO: 3590).

9. A modified oligonucleotide according to the following chemical structure:



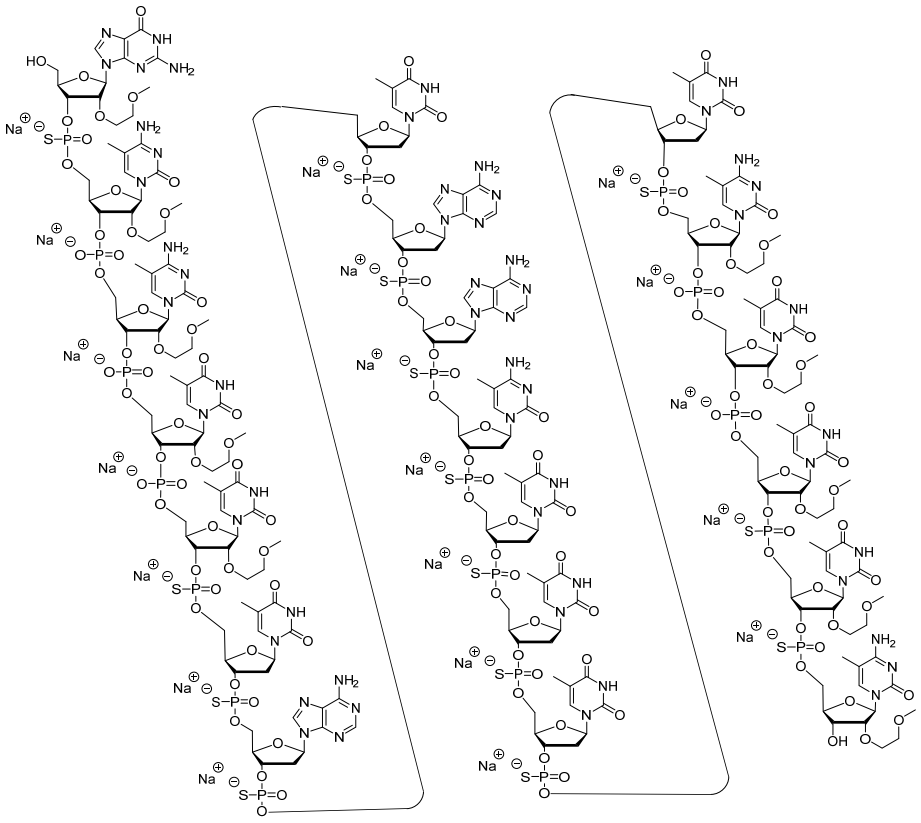
(SEQ ID NO: 126).

10. A modified oligonucleotide according to the following chemical structure:



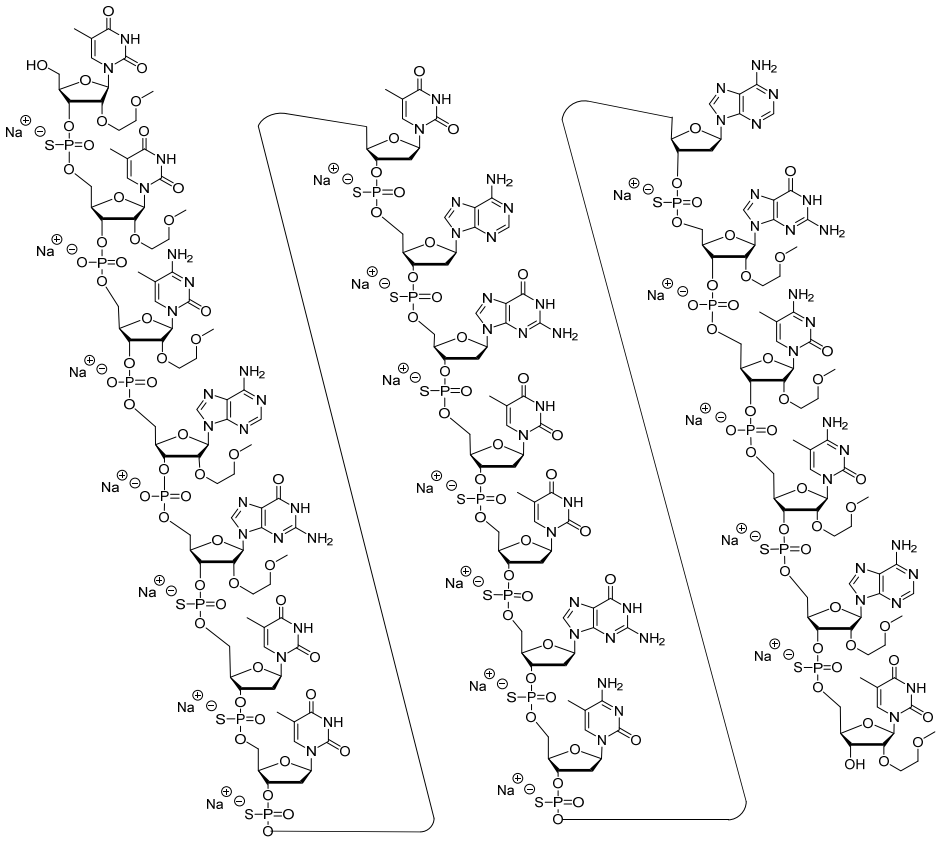
(SEQ ID NO: 1045).

11. A modified oligonucleotide according to the following chemical structure:



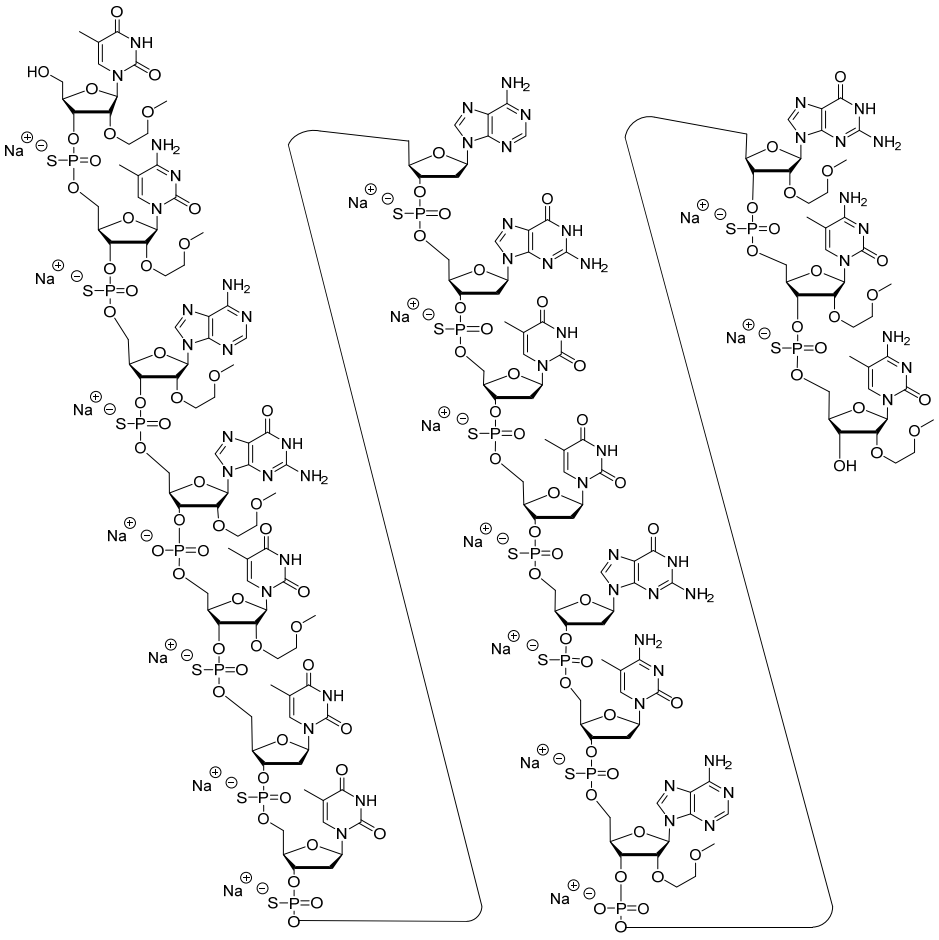
(SEQ ID NO: 2552).

12. A modified oligonucleotide according to the following chemical structure:



(SEQ ID NO: 3190).

13. A modified oligonucleotide according to the following chemical structure:



(SEQ ID NO: 3638).

14. An oligomeric compound comprising a modified oligonucleotide according to the following chemical notation: ^{m}Ces ^{m}Ceo ^{m}Ceo Geo Tes Ads Tds Tds ^{m}Cds ^{m}Cds Tds ^{m}Cds Tds Tds Ads ^{m}Ceo ^{m}Ceo Aes Tes ^{m}Ce (SEQ ID NO: 3590), wherein,

A = an adenine nucleobase,

^{m}C = a 5-methylcytosine nucleobase,

G = a guanine nucleobase,

T = a thymine nucleobase,

e = a 2'-MOE sugar moiety,

d = a 2'-β-D deoxyribosyl sugar moiety,

s = a phosphorothioate internucleoside linkage, and

o = a phosphodiester internucleoside linkage.

15. An oligomeric compound comprising a modified oligonucleotide according to the following chemical notation: Ges ^{m}Ceo Aeo ^{m}Ceo Ges Gds Tds Ads Tds Tds Ads Gds Tds Gds Tds ^{m}Ceo Teo Tes ^{m}Ces Ae (SEQ ID NO: 126), wherein,

A = an adenine nucleobase,

^{m}C = a 5-methylcytosine nucleobase,

G = a guanine nucleobase,

T = a thymine nucleobase,

e = a 2'-MOE sugar moiety,

d = a 2'-β-D deoxyribosyl sugar moiety,

s = a phosphorothioate internucleoside linkage, and

o = a phosphodiester internucleoside linkage.

16. An oligomeric compound comprising a modified oligonucleotide according to the following chemical notation: Ges ^{m}Ceo Teo Teo ^{m}Ces Tds ^{m}Cds Ads Ads Ads Tds ^{m}Cds Ads Gds Gds Teo Geo Tes Aes mCe (SEQ ID NO: 1045), wherein,

A = an adenine nucleobase,

^{m}C = a 5-methylcytosine nucleobase,

G = a guanine nucleobase,

T = a thymine nucleobase,

e = a 2'-MOE sugar moiety,

d = a 2'-β-D deoxyribosyl sugar moiety,

s = a phosphorothioate internucleoside linkage, and

o = a phosphodiester internucleoside linkage.

17. An oligomeric compound comprising a modified oligonucleotide according to the following chemical notation: Ges ^{m}Ceo ^{m}Ceo Teo Tes Tds Ads Tds Ads Ads ^{m}Cds Tds Tds Tds Tds ^{m}Ceo Teo Tes Tes ^{m}Ce (SEQ ID NO: 2552), wherein,

A = an adenine nucleobase,

^{m}C = a 5-methylcytosine nucleobase,

G = a guanine nucleobase,

T = a thymine nucleobase,

e = a 2'-MOE sugar moiety,

d = a 2'-β-D deoxyribosyl sugar moiety,

s = a phosphorothioate internucleoside linkage, and

o = a phosphodiester internucleoside linkage.

18. An oligomeric compound comprising a modified oligonucleotide according to the following chemical notation: Tes Teo ^{m}Ceo Aeo Ges Tds Tds Tds Ads Gds Tds Tds Gds ^{m}Cds Ads Geo ^{m}Ceo ^{m}Ces Aes Te (SEQ ID NO: 3190), wherein,

A = an adenine nucleobase,

^{m}C = a 5-methylcytosine nucleobase,

G = a guanine nucleobase,

T = a thymine nucleobase,

e = a 2'-MOE sugar moiety,

d = a 2'-β-D deoxyribosyl sugar moiety,

s = a phosphorothioate internucleoside linkage, and

o = a phosphodiester internucleoside linkage.

19. An oligomeric compound comprising a modified oligonucleotide according to the following chemical notation: Tes ^{m}Ces Aes Geo Tes Tds Tds Ads Gds Tds Tds Gds ^{m}Cds Aeo Ges ^{m}Ces ^{m}Ce (SEQ ID NO: 3638), wherein,

A = an adenine nucleobase,

^{m}C = a 5-methylcytosine nucleobase,

G = a guanine nucleobase,

T = a thymine nucleobase,

e = a 2'-MOE sugar moiety,

d = a 2'-β-D deoxyribosyl sugar moiety,

s = a phosphorothioate internucleoside linkage, and

o = a phosphodiester internucleoside linkage.

20. A population of modified oligonucleotides of any of claims 1-13, or a population of oligomeric compounds of any of claims 14-19, wherein all of the phosphorothioate internucleoside linkages of the modified oligonucleotides are stereorandom.

21. A pharmaceutical composition comprising the modified oligonucleotides of any of claims 1-13, the oligomeric compounds of any of claims 14-19, the population of modified oligonucleotides of claim 20, or the population of oligomeric compound of claim 20, and a pharmaceutically acceptable diluent.

22. The pharmaceutical composition of claim 21, wherein the pharmaceutically acceptable diluent is artificial cerebrospinal fluid or phosphate-buffered saline (PBS).

23. The pharmaceutical composition of claim 22, wherein the pharmaceutical composition:

a) consists essentially of the modified oligonucleotide or the oligomeric compound and artificial cerebrospinal fluid;

b) consists essentially of the modified oligonucleotide or the oligomeric compound and PBS;

c) consists essentially of the population of modified oligonucleotides or the population of oligomeric compounds and artificial cerebrospinal fluid; or

d) consists essentially of the population of modified oligonucleotides or the population of oligomeric compounds and PBS.