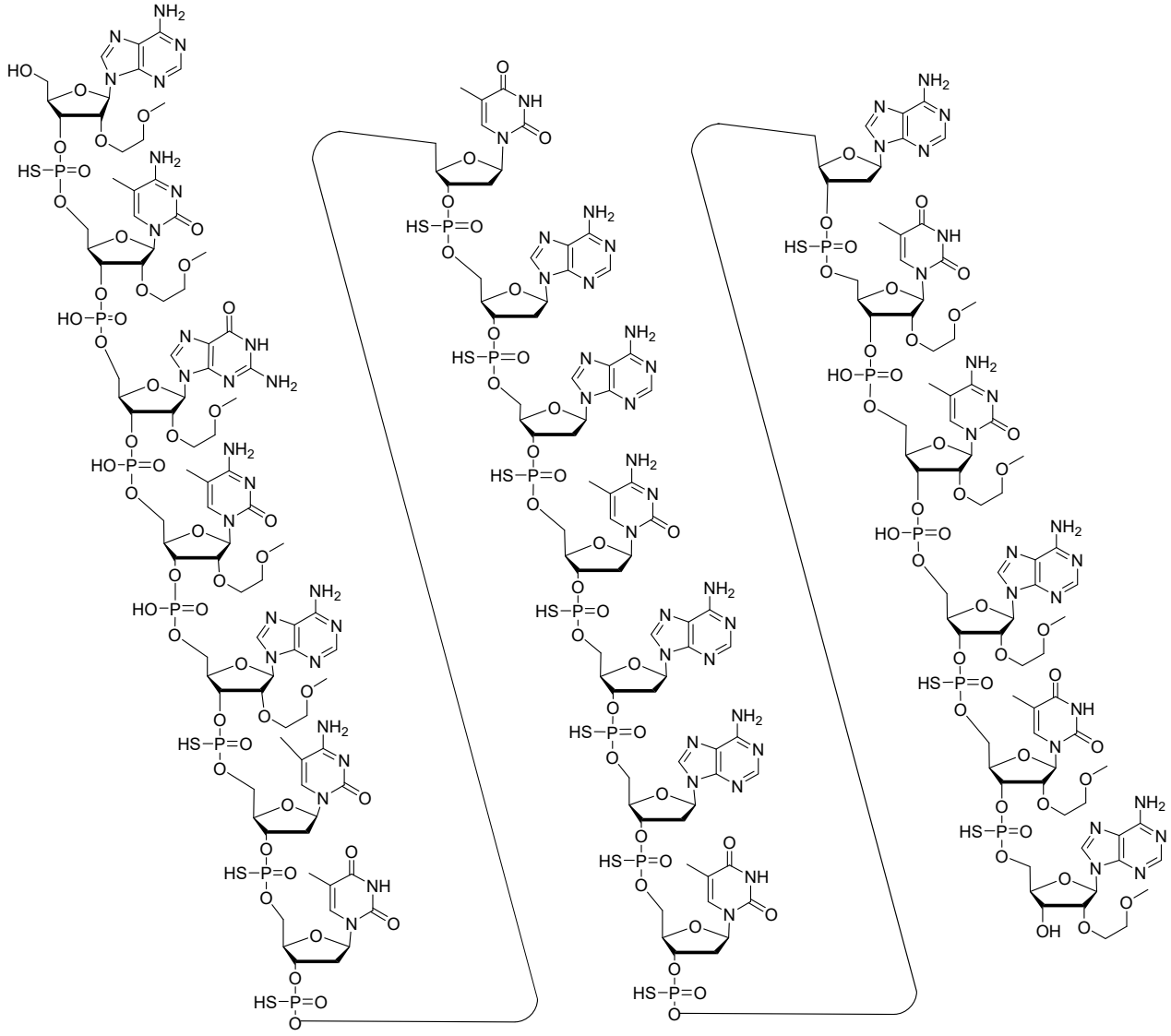
CLAIMS:

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

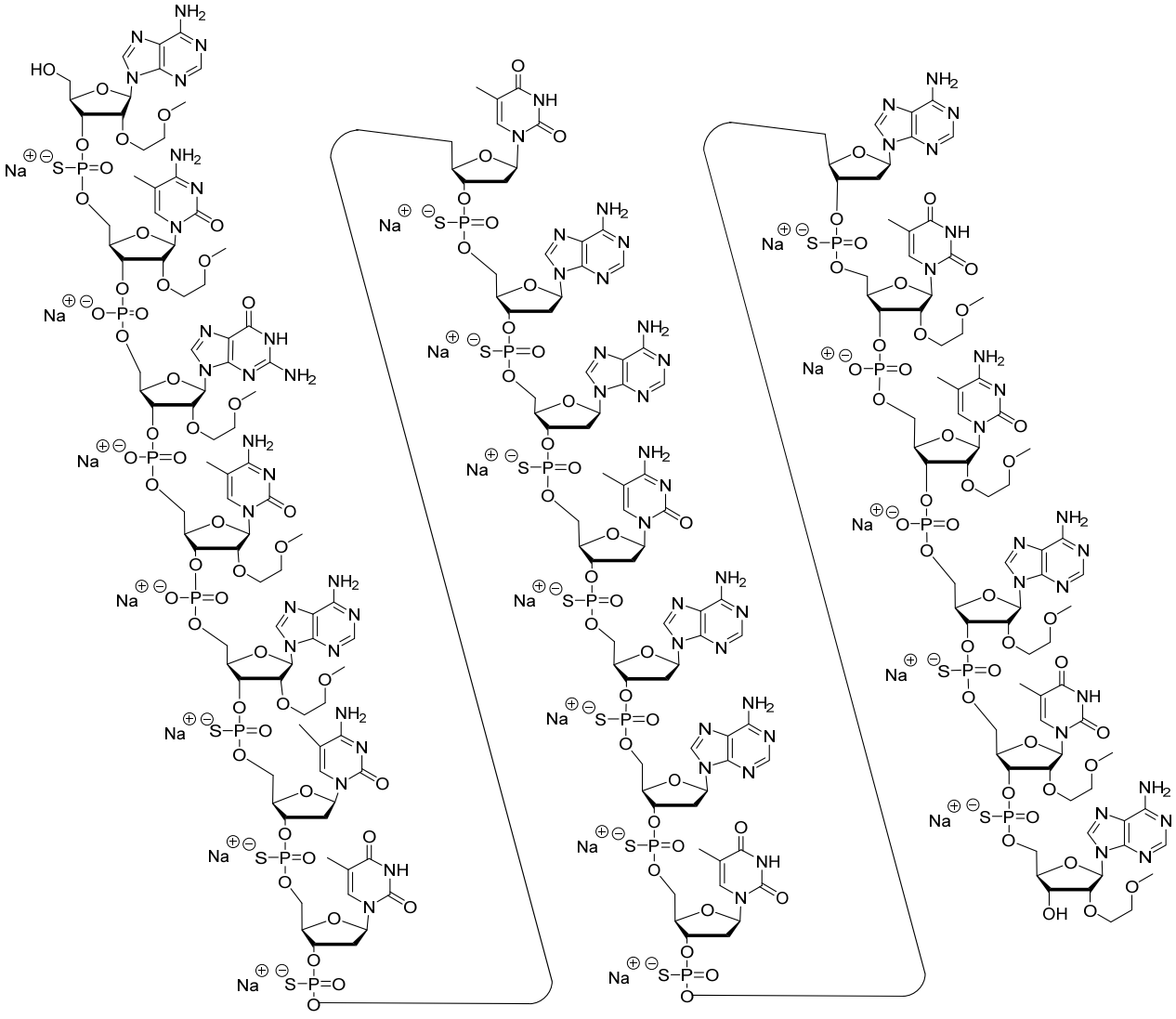


(SEQ ID NO: 3590)

or a salt thereof.

2. The modified oligonucleotide of claim 1, which is the sodium salt or the potassium salt.

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



(SEQ ID NO: 3590).

4. An oligomeric compound comprising a modified oligonucleotide according to the following chemical notation:

Aes mCeo Geo mCeo Aes mCds Tds Tds Ads Ads mCds Ads Ads Tds Ads Teo mCeo Aes Tes Ae (SEQ ID NO: 3590); wherein,

A = an adenine nucleobase,

mC = a 5-methyl cytosine nucleobase,

G = a guanine nucleobase,

T = a thymine nucleobase,

e = a 2'-$OCH_2CH_2OCH_3$ ribosyl sugar moiety,

d = a 2'-deoxyribosyl sugar moiety,

s = a phosphorothioate internucleoside linkage, and

o = a phosphodiester internucleoside linkage.

5. A population of modified oligonucleotides of any of claims 1-3 or a population of oligomeric compounds of claim 4, wherein all of the phosphorothioate internucleoside linkages of the modified oligonucleotide are stereorandom.

6. A pharmaceutical composition comprising a modified oligonucleotide of any of claims 1-3, an oligomeric compound of claim 4, or a population of modified oligonucleotides or oligomeric compounds of claim 5, and a pharmaceutically acceptable diluent.

7. The pharmaceutical composition of claim 6, wherein:

i) the pharmaceutically acceptable diluent is artificial cerebrospinal fluid or phosphate-buffered saline (PBS); or

ii) the pharmaceutical composition consists essentially of a modified oligonucleotide of any of claims 1-3, an oligomeric compound of claim 4, or a population of modified oligonucleotides or oligomeric compounds of claim 5, and:

a) artificial cerebrospinal fluid; or

b) PBS.

8. A modified oligonucleotide of any of claims 1-3, an oligomeric compound of claim 4, a population of modified oligonucleotides or oligomeric compounds of claim 5, or a pharmaceutical composition of claim 6 or claim 7 for use in therapy in an animal.

9. The modified oligonucleotide, oligomeric compound, population of modified oligonucleotides or oligomeric compounds, or pharmaceutical composition for use according to claim 8, wherein the therapy comprises reducing expression of LRRK2 in a cell, optionally wherein the cell is a human cell.

10. Use of a modified oligonucleotide of any of claims 1-3, an oligomeric compound of claim 4, a population of modified oligonucleotides or oligomeric compounds of claim 5, or a pharmaceutical composition of claim 6 or claim 7 in the manufacture of a medicament for treating a disease associated with LRRK2.

11. The use according to claim 10, wherein the disease associated with LRRK2 is a neurodegenerative disease.

12. The use according to claim 11, wherein the neurodegenerative disease is Parkinson’s disease.

13. The use according to claim 11 or claim 12, wherein at least one symptom or hallmark of the neurodegenerative disease is ameliorated.

14. The use according to claim 13, wherein the symptom or hallmark is any of ataxia, neuropathy, and aggregate formation.