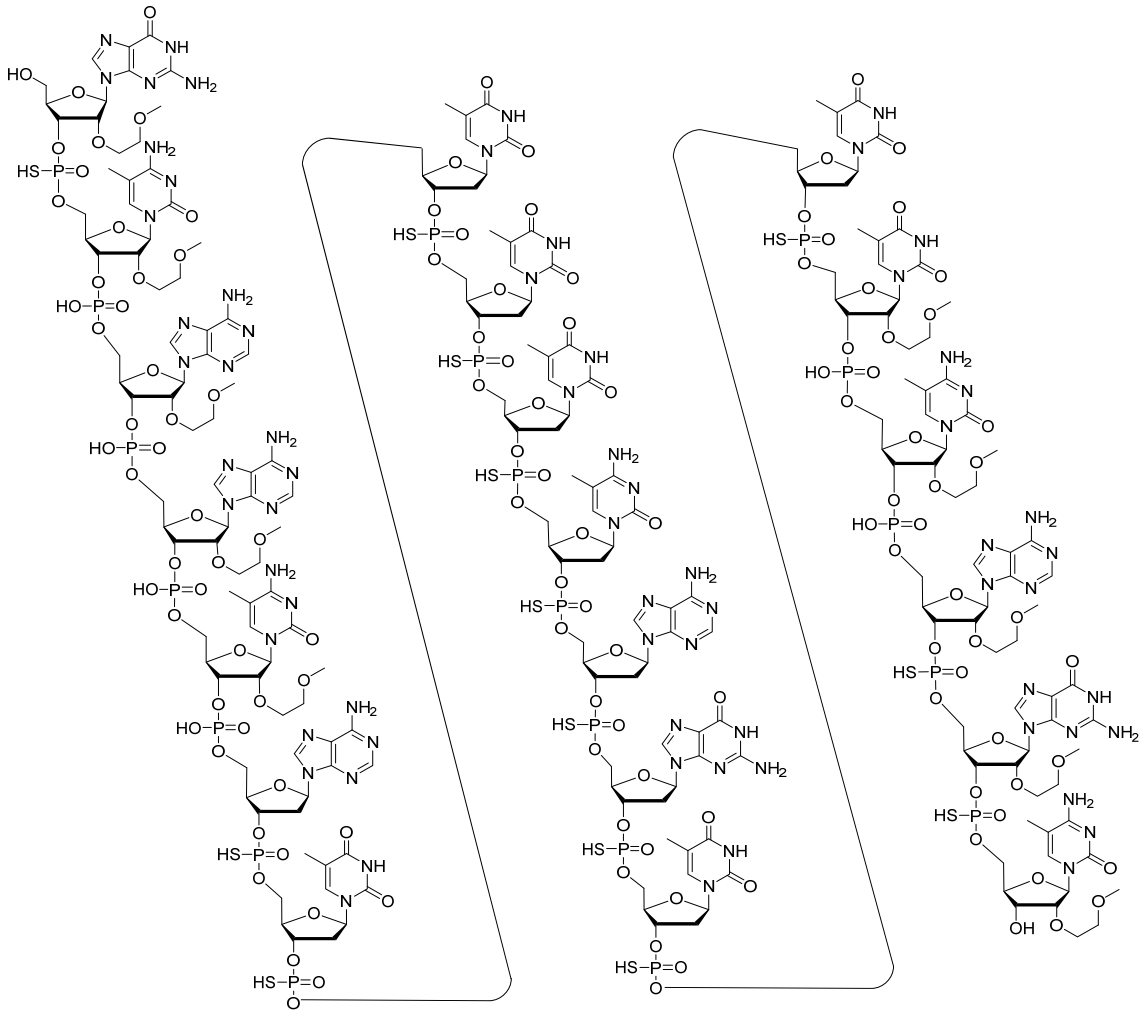
**CLAIMS:**

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



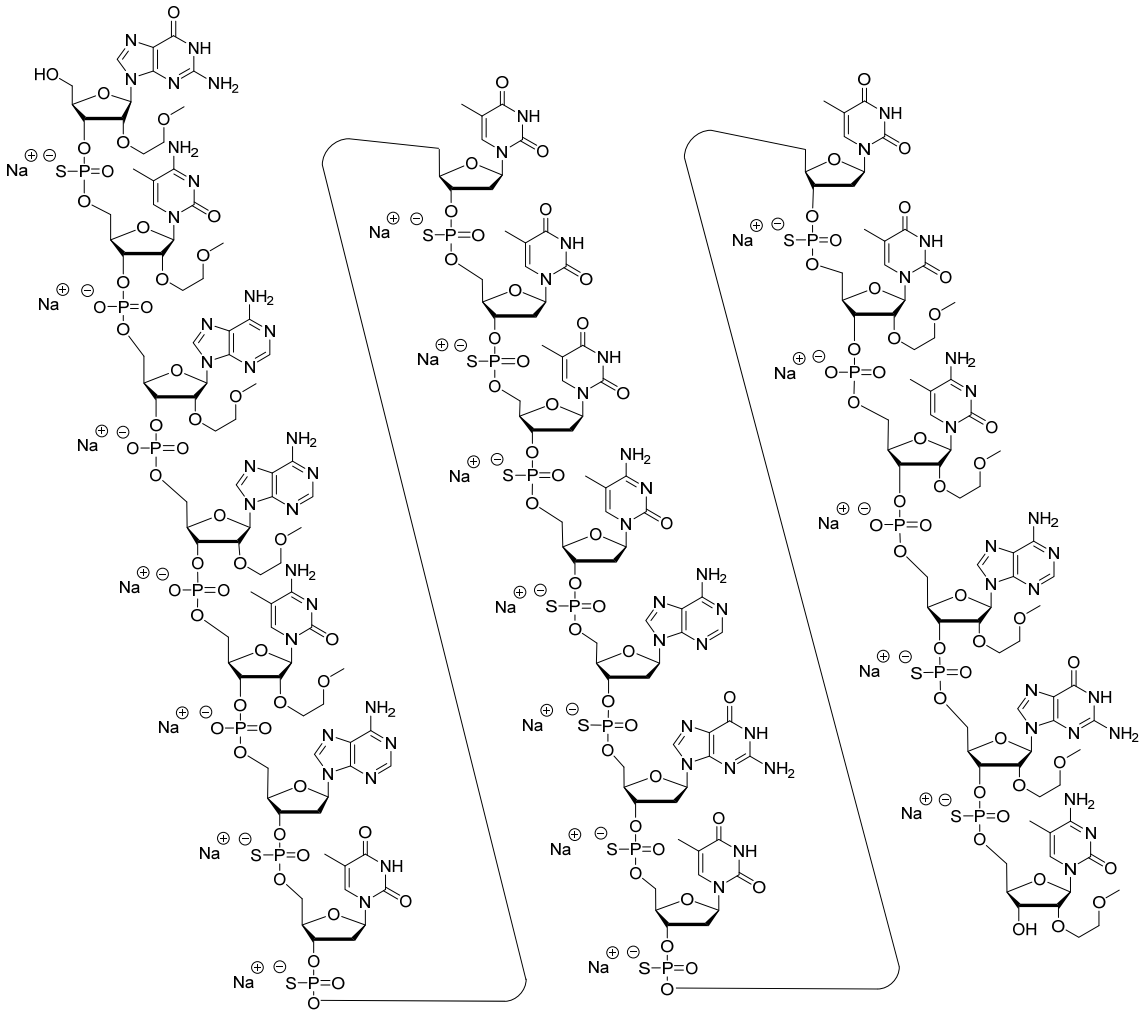
(SEQ ID NO: 19), or a pharmaceutically acceptable salt thereof.

2. The modified oligonucleotide of claim 1, which is a pharmaceutically acceptable salt:

(a) comprising one or more cations selected from sodium, potassium, calcium, and magnesium; or

(b) which is the sodium salt or the potassium salt.

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



(SEQ ID NO: 19).

4. An oligomeric compound comprising a modified oligonucleotide according to the following chemical notation: $G_{es}{}^{m}C_{eo}A_{eo}A_{eo}{}^{m}C_{eo}A_{ds}T_{ds}T_{ds}T_{ds}T_{ds}{}^{m}C_{ds}A_{ds}G_{ds}T_{ds}T_{ds}T_{eo}{}^{m}C_{eo}A_{es}G_{es}{}^{m}C_{e}$ (SEQ ID NO: 19), 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.

5. A population of modified oligonucleotides of any one 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 one of claims 1-3 or an oligomeric compound of claim 4, and a pharmaceutically acceptable diluent.

7. The pharmaceutical composition of claim 6, wherein the pharmaceutically acceptable diluent is phosphate-buffered saline or artificial cerebrospinal fluid.

8. The pharmaceutical composition of claim 7, wherein the pharmaceutical composition consists essentially of the modified oligonucleotide and the phosphate-buffered saline or the artificial cerebrospinal fluid.

9. A pharmaceutical composition comprising a population of claim 5 and a pharmaceutically acceptable diluent.

10. The pharmaceutical composition of claim 9, wherein the pharmaceutically acceptable diluent is phosphate-buffered saline or artificial cerebrospinal fluid.

11. Use of a modified oligonucleotide of any of claims 1-3, an oligomeric compound of claim 4, a population of claim 5, or a pharmaceutical composition of any of claims 6-10, in the manufacture of a medicament for treatment of a disease or disorder associated with MECP2.

12. Use of the modified oligonucleotide, the oligomeric compound, the population, or the pharmaceutical composition according to claim 11, wherein:

(a) the disease or disorder associated with MECP2 is a neurodevelopmental disease or disorder; or

(b) the disease or disorder associated with MECP2 is MECP2 Duplication Syndrome.

13. Use of a therapeutically effective amount of a modified oligonucleotide of any of claims 1-3, an oligomeric compound of claim 4, a population of claim 5, or a pharmaceutical composition of any of claims 6-10, in the manufacture of a medicament for treating a disease or disorder associated with MECP2 in a subject, wherein the subject has or is at risk of developing the disease or disorder associated with MECP2.

14. The use of claim 13, wherein the disease or disorder associated with MECP2 is a neurodevelopmental disease or disorder; and/or wherein the disease or disorder associated with MECP2 is MECP2 Duplication Syndrome.

15. The use of claim 13 or claim 14, wherein:

(a) at least one symptom or hallmark of the disease or disorder associated with MECP2 is ameliorated; or

(b) at least one symptom or hallmark of the disease or disorder associated with MECP2 is ameliorated, wherein the symptom or hallmark is autism, intellectual disability, motor dysfunction, hypotonia, global developmental delays, gastrointestinal symptoms, anxiety, epilepsy, recurrent respiratory tract infections, epileptic encephalopathy, or early death.

16. The use of any one of claims 13-15, wherein:

(a) the disease or disorder associated with MECP2 is associated with an elevated level of MECP2 in the subject; or

(b) the disease or disorder associated with MECP2 is associated with an elevated level of MECP2 in the subject, wherein administration of the modified oligonucleotide, the oligomeric compound, the population, or the pharmaceutical composition reduces seizures, reduces or delays cognitive impairment, reduces or delays intellectual disabilities, reduces or delays symptoms of autism, reduces anxiety, or reduces gastrointestinal symptoms in the subject; or improves motor function, motor development, muscle tone, cognitive development, speech, or social skill development in the subject.

17. The use of any one of claims 11-16, wherein the subject is human.

18. A modified oligonucleotide of any of claims 1-3, an oligomeric compound of claim 4, a population of claim 5, or a pharmaceutical composition of any of claims 6-10, for use as a medicament.