

WHAT IS CLAIMED IS:

1. A composition for the treatment of hepatitis B or hepatitis D infection comprising a pharmaceutically acceptable small molecule inhibiting the activity of at least one of casein kinase 1 isoform delta, DNAJB12, and microtubule-actin crosslinking factor 1, and a carrier.
2. The composition of claim 1, wherein the small molecule is an oligonucleotide.
3. The composition of claim 1 or 2, wherein the oligonucleotide is an antisense oligonucleotide, a synthetic interfering RNA, or a CRISPR-associated endonuclease and guide RNA complementary to any part of the mRNA for casein kinase 1 isoform delta, DNAJB12, or microtubule-actin crosslinking factor 1.
4. The composition of any one of claims 1-3, wherein said composition inhibiting the assembly and/or secretion of HBV subviral particles (SVP).
5. The composition of any one of claims 1-4, wherein the small molecule is an antisense oligonucleotide with the sequence as set forth in SEQ ID NO: 12, 13 or 17.
6. The composition of any one of claims 1-4, wherein the small molecule is a synthetic interfering RNA with the sequence as set forth in SEQ ID NO: 5, 6, 10, 12, 13 or 17.
7. The composition of any one of claims 1-4, wherein the small molecule is CRISPR-Cas9 with a guide RNA comprising the sequence as set forth in SEQ ID NO: 5, 6, 10, 12, 13 or 17.
8. The composition of any one of claims 2-7, wherein said oligonucleotide comprises a modified nucleobase.
9. The composition of claim 2, wherein said oligonucleotide is single stranded or double stranded.
10. The composition of claim 2, wherein said oligonucleotide is a Spiegelmer or an aptamer.

11. The composition of any one of claims 2-10, wherein said oligonucleotide comprises at least one modification in the phosphodiester linkage, on the sugar, and on the base.

12. The composition of any one of claims 2-11, wherein said oligonucleotide comprising at least one of a phosphorothioate linkage, a phosphorodithioate linkages, a 2'-O-methyl modification, a 2'-amino modification, a 2'-halo modification, an acyclic nucleotide analog, a 3'- and/or 5'-cap, 5'methylation of the cytosine base, and a 4'thioation of the uracil base.

13. The composition of any one of claims 1-12, said composition further comprising at least one nucleic acid polymer consisting of SEQ ID NO:1 and SEQ ID NO: 4.

~~0-14. A method for the treatment of hepatitis B or hepatitis D infection comprising administering to a subject in need of treatment~~ Use of an effective amount of a pharmaceutically acceptable small molecule inhibiting the activity of casein kinase 1 isoform delta, DNAJB12, and microtubule-actin crosslinking factor 1 in the manufacture of a medicament for the treatment of hepatitis B or hepatitis D infection, wherein the medicament is to be administered to a subject in need of treatment.

~~14-15.~~ The method use of claim 14, wherein the small molecule is an oligonucleotide.

~~15-16.~~ The method use of claim 14 or 15, wherein the oligonucleotide is an antisense oligonucleotide, a synthetic interfering RNA, or a CRISPR-associated endonuclease and guide RNA complementary to any part of the mRNA for casein kinase 1 isoform delta, DnaJB12, casein kinase 1 isoform alpha, _coatomer subunit epsilon, transducin beta-like protein 2, or microtubule-actin crosslinking factor 1.

~~16-17.~~ The method use of any one of claims 14-16, wherein said composition inhibiting the assembly and/or secretion of HBV subviral particles (SVP).

~~17-18.~~ The method use of any one of claims 14-17, wherein the small molecule is an antisense oligonucleotide with the sequence as set forth in SEQ ID NO: 12, 13 or 17.

~~18-19.~~ The method use of any one of claims 14-17, wherein the small molecule is a synthetic interfering RNA with the sequence as set forth in SEQ ID NO: 5, 6, 10, 12, 13 or 17.

~~19-20.~~ The method use of any one of claims 14-17, wherein the small molecule is CRISPR-Cas9 with a guide RNA comprising the sequence as set forth in SEQ ID NO: 5, 6, 10, 12, 13 or 17.

21. The ~~method~~use of any one of claims 14-20, wherein said oligonucleotide comprises a modified nucleobase.
22. The ~~method~~use of claim 15, wherein said oligonucleotide is single stranded or double stranded.
23. The ~~method~~use of claim 15, wherein said oligonucleotide is a Spiegelmer, an aptamer, an miRNA, a small interfering RNA (siRNA) or a small hairpin RNA (shRNA).
24. The ~~method~~use of any one of claims 14-23, wherein said oligonucleotide comprises at least one modification in the phosphodiester linkage, on the sugar, and on the base.
25. The ~~method~~use of any one of claims 14-24, wherein said oligonucleotide comprising at least one of a phosphorothioate linkage, a phosphorodithioate linkages, a 2'-O-methyl modification, a 2'-amino modification, a 2'-halo modification, an acyclic nucleotide analog, a 3'- and/or 5'-cap, 5'methylation of the cytosine base, and a 4'thioation of the uracil base.
26. The ~~method~~use of any one of claims 14-25, further comprising administering at least one nucleic acid polymer consisting of SEQ ID NO:1 and SEQ ID NO: 4.
27. Use of ~~the~~ The composition of any one of claims 1-13 for use in inhibiting the assembly and/or secretion of HBV subviral particles (SVP) in a patient.
28. The composition of any one of claims 1-13 for use in the treatment of hepatitis B or hepatitis D infection.