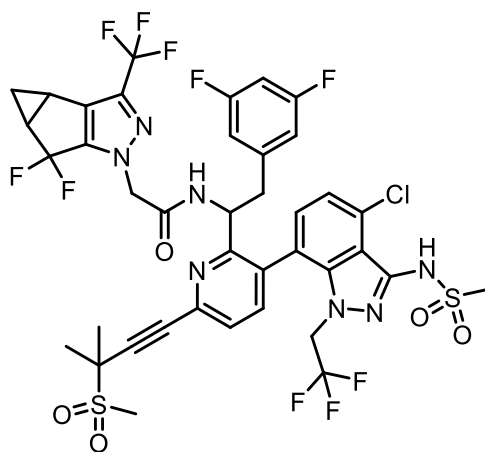


CLAIMS

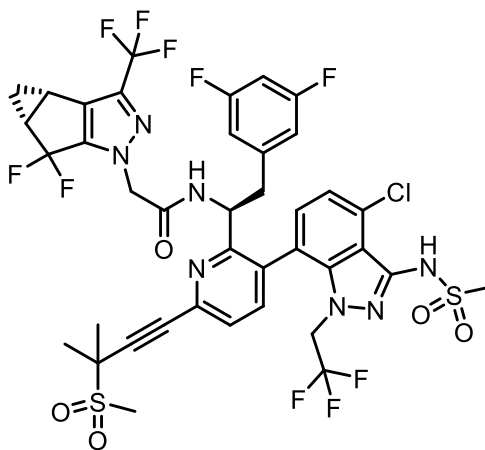
1. A compound of Formula (Ia):



(Ia)

or a pharmaceutically acceptable salt thereof.

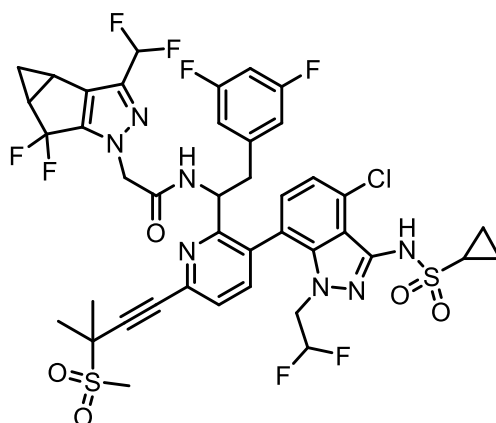
2. The compound of claim 1, which is a compound of Formula (Ib)



(Ib)

or a pharmaceutically acceptable salt thereof.

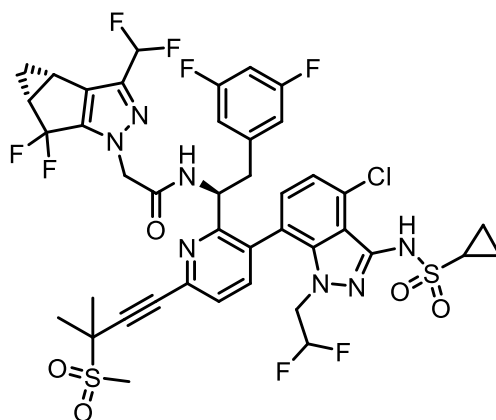
3. A compound of Formula (IIa):



(IIa)

or a pharmaceutically acceptable salt thereof.

4. The compound of claim 3, which is a compound of Formula (IIb):



(IIb)

or a pharmaceutically acceptable salt thereof.

5. A pharmaceutical composition comprising a therapeutically effective amount of the compound of any one of claims 1-4, or a pharmaceutically acceptable salt thereof, and a pharmaceutically acceptable excipient,

said pharmaceutical composition optionally further comprising one, two, three, or four additional therapeutic agents, optionally wherein the additional therapeutic agents are selected from the group consisting of combination drugs for HIV, other drugs for treating HIV, HIV protease inhibitors, HIV non-nucleoside or non-nucleotide inhibitors of reverse transcriptase, HIV nucleoside or nucleotide inhibitors of reverse transcriptase, HIV integrase inhibitors,

HIV non-catalytic site (or allosteric) integrase inhibitors, HIV entry inhibitors, HIV maturation inhibitors, latency reversing agents, compounds that target the HIV capsid, immune-based therapies, phosphatidylinositol 3-kinase (PI3K) inhibitors, HIV antibodies, bispecific antibodies and “antibody-like” therapeutic proteins, HIV p17 matrix protein inhibitors, IL-13 antagonists, peptidyl-prolyl cis-trans isomerase A modulators, protein disulfide isomerase inhibitors, complement C5a receptor antagonists, DNA methyltransferase inhibitor, HIV vif gene modulators, Vif dimerization antagonists, HIV-1 viral infectivity factor inhibitors, TAT protein inhibitors, HIV-1 Nef modulators, Hck tyrosine kinase modulators, mixed lineage kinase-3 (MLK-3) inhibitors, HIV-1 splicing inhibitors, Rev protein inhibitors, integrin antagonists, nucleoprotein inhibitors, splicing factor modulators, COMM domain containing protein 1 modulators, HIV ribonuclease H inhibitors, retrocyclin modulators, CDK-9 inhibitors, dendritic ICAM-3 grabbing nonintegrin 1 inhibitors, HIV GAG protein inhibitors, HIV POL protein inhibitors, Complement Factor H modulators, ubiquitin ligase inhibitors, deoxycytidine kinase inhibitors, cyclin dependent kinase inhibitors, proprotein convertase PC9 stimulators, ATP dependent RNA helicase DDX3X inhibitors, reverse transcriptase priming complex inhibitors, G6PD and NADH-oxidase inhibitors, pharmacokinetic enhancers, HIV gene therapy, and HIV vaccines, or any combinations thereof;

optionally wherein the additional therapeutic agents are selected from the group consisting of HIV protease inhibiting compounds, HIV non-nucleoside inhibitors of reverse transcriptase, HIV non-nucleotide inhibitors of reverse transcriptase, HIV nucleoside inhibitors of reverse transcriptase, HIV nucleotide inhibitors of reverse transcriptase, HIV integrase inhibitors, gp41 inhibitors, CXCR4 inhibitors, gp120 inhibitors, CCR5 inhibitors, capsid polymerization inhibitors, pharmacokinetic enhancers, and other drugs for treating HIV, or any combinations thereof.

6. The pharmaceutical composition of claim 5, wherein

i) the pharmaceutical composition comprises a therapeutically effective amount of a compound of claim 1 or claim 2 and wherein the additional therapeutic agents are selected from the group consisting of GS-9131, GS-9148, abacavir sulfate, tenofovir, tenofovir disoproxil, tenofovir disoproxil fumarate, tenofovir disoproxil hemifumarate, tenofovir alafenamide, tenofovir alafenamide fumarate, tenofovir alafenamide hemifumarate, 4’-

ethynyl-2-fluoro-2'-deoxyadenosine and bictegravir or a pharmaceutically acceptable salt thereof,

optionally wherein the additional therapeutic agents are selected from the group consisting of tenofovir alafenamide, tenofovir alafenamide fumarate and tenofovir alafenamide hemifumarate; or

ii) the pharmaceutical composition comprises a therapeutically effective amount of a compound of claim 3 or claim 4 and wherein the additional therapeutic agents are selected from the group consisting of GS-9131, GS-9148, 4'-ethynyl-2-fluoro-2'-deoxyadenosine, bictegravir or a pharmaceutically acceptable salt thereof, abacavir sulfate, tenofovir, tenofovir disoproxil, tenofovir disoproxil fumarate, tenofovir disoproxil hemifumarate, tenofovir alafenamide, tenofovir alafenamide fumarate and tenofovir alafenamide hemifumarate,

optionally wherein the additional therapeutic agents are selected from the group consisting of 4'-ethynyl-2-fluoro-2'-deoxyadenosine, bictegravir or a pharmaceutically acceptable salt thereof, tenofovir alafenamide, tenofovir alafenamide fumarate and tenofovir alafenamide hemifumarate.

7. A compound of any of claims 1-4, or a pharmaceutically acceptable salt thereof, for use in therapy.

8. A compound of any of claims 1-4, or a pharmaceutically acceptable salt thereof, for use in a method of treating or preventing a human immunodeficiency virus (HIV) infection comprising administering a therapeutically effective amount of said compound to a subject in need thereof.

9. The compound for use according to claim 8, wherein said method comprises administering one, two, three or four additional therapeutic agents, optionally wherein

i) the additional therapeutic agents are administered simultaneously with the compound of formula (Ia), (Ib), (IIa) or (IIb) or a pharmaceutically acceptable salt thereof, optionally wherein the compound of formula (Ia), (Ib), (IIa) or (IIb) is combined with the additional therapeutic agents in a unitary dosage form for simultaneous administration; or

ii) the compound of formula (Ia), (Ib), (IIa) or (IIb) is administered and the additional therapeutic agents are administered sequentially.

10. The compound for use according to claim 9, wherein the compound is a compound of claim 1 or claim 2 and wherein the additional therapeutic agents are selected from the group consisting of combination drugs for HIV, other drugs for treating HIV, HIV protease inhibitors, HIV non-nucleoside or non-nucleotide inhibitors of reverse transcriptase, HIV nucleoside or nucleotide inhibitors of reverse transcriptase, HIV integrase inhibitors, HIV non-catalytic site (or allosteric) integrase inhibitors, HIV entry inhibitors, HIV maturation inhibitors, latency reversing agents, compounds that target the HIV capsid, immune-based therapies, phosphatidylinositol 3-kinase (PI3K) inhibitors, HIV antibodies, bispecific antibodies and “antibody-like” therapeutic proteins, HIV p17 matrix protein inhibitors, IL-13 antagonists, peptidyl-prolyl cis-trans isomerase A modulators, protein disulfide isomerase inhibitors, complement C5a receptor antagonists, DNA methyltransferase inhibitor, HIV vif gene modulators, Vif dimerization antagonists, HIV-1 viral infectivity factor inhibitors, TAT protein inhibitors, HIV-1 Nef modulators, Hck tyrosine kinase modulators, mixed lineage kinase-3 (MLK-3) inhibitors, HIV-1 splicing inhibitors, Rev protein inhibitors, integrin antagonists, nucleoprotein inhibitors, splicing factor modulators, COMM domain containing protein 1 modulators, HIV ribonuclease H inhibitors, retrocyclin modulators, CDK-9 inhibitors, dendritic ICAM-3 grabbing nonintegrin 1 inhibitors, HIV GAG protein inhibitors, HIV POL protein inhibitors, Complement Factor H modulators, ubiquitin ligase inhibitors, deoxycytidine kinase inhibitors, cyclin dependent kinase inhibitors, proprotein convertase PC9 stimulators, ATP dependent RNA helicase DDX3X inhibitors, reverse transcriptase priming complex inhibitors, G6PD and NADH-oxidase inhibitors, pharmacokinetic enhancers, HIV gene therapy, and HIV vaccines, or any combinations thereof,

optionally wherein the additional therapeutic agents are selected from the group consisting of HIV protease inhibiting compounds, HIV non-nucleoside inhibitors of reverse transcriptase, HIV non-nucleotide inhibitors of reverse transcriptase, HIV nucleoside inhibitors of reverse transcriptase, HIV nucleotide inhibitors of reverse transcriptase, HIV integrase inhibitors, gp41 inhibitors, CXCR4 inhibitors, gp120 inhibitors, CCR5 inhibitors, capsid polymerization inhibitors, pharmacokinetic enhancers, and other drugs for treating HIV, or any combinations thereof,

optionally wherein said compound is combined with

- i) abacavir sulfate, tenofovir, tenofovir disoproxil, tenofovir disoproxil fumarate, tenofovir disoproxil hemifumarate, tenofovir alafenamide, or tenofovir alafenamide hemifumarate; or
- ii) 4'-ethynyl-2-fluoro-2'-deoxyadenosine, bictegravir or a pharmaceutically acceptable salt thereof; or
- iii) tenofovir alafenamide, tenofovir alafenamide fumarate or tenofovir alafenamide hemifumarate; or
- iv) tenofovir disoproxil, tenofovir disoproxil hemifumarate or tenofovir disoproxil fumarate; or
- v) a first additional therapeutic agent selected from the group consisting of abacavir sulfate, tenofovir, tenofovir disoproxil, tenofovir disoproxil fumarate, tenofovir alafenamide, and tenofovir alafenamide hemifumarate, and a second additional therapeutic agent selected from the group consisting of emtricitabine and lamivudine; or
- vi) a first additional therapeutic agent selected from the group consisting of tenofovir alafenamide fumarate, tenofovir alafenamide, and tenofovir alafenamide hemifumarate, and a second additional therapeutic agent, wherein the second additional therapeutic agent is emtricitabine; or
- vii) a first additional therapeutic agent selected from the group consisting of tenofovir disoproxil fumarate, tenofovir disoproxil, and tenofovir disoproxil hemifumarate, and a second additional therapeutic agent, wherein the second additional therapeutic agent is emtricitabine.

11. The compound for use according to claim 9, wherein the compound is a compound of claim 3 or claim 4 and wherein the additional therapeutic agents are selected from the group consisting of combination drugs for HIV, other drugs for treating HIV, HIV protease inhibitors, HIV non-nucleoside or non-nucleotide inhibitors of reverse transcriptase, HIV nucleoside or nucleotide inhibitors of reverse transcriptase, HIV integrase inhibitors, HIV non-catalytic site (or allosteric) integrase inhibitors, HIV entry inhibitors, HIV maturation inhibitors, latency reversing agents, compounds that target the HIV capsid, immune-based

therapies, phosphatidylinositol 3-kinase (PI3K) inhibitors, HIV antibodies, bispecific antibodies and “antibody-like” therapeutic proteins, HIV p17 matrix protein inhibitors, IL-13 antagonists, peptidyl-prolyl cis-trans isomerase A modulators, protein disulfide isomerase inhibitors, complement C5a receptor antagonists, DNA methyltransferase inhibitor, HIV vif gene modulators, Vif dimerization antagonists, HIV-1 viral infectivity factor inhibitors, TAT protein inhibitors, HIV-1 Nef modulators, Hck tyrosine kinase modulators, mixed lineage kinase-3 (MLK-3) inhibitors, HIV-1 splicing inhibitors, Rev protein inhibitors, integrin antagonists, nucleoprotein inhibitors, splicing factor modulators, COMM domain containing protein 1 modulators, HIV ribonuclease H inhibitors, retrocyclin modulators, CDK-9 inhibitors, dendritic ICAM-3 grabbing nonintegrin 1 inhibitors, HIV GAG protein inhibitors, HIV POL protein inhibitors, Complement Factor H modulators, ubiquitin ligase inhibitors, deoxycytidine kinase inhibitors, cyclin dependent kinase inhibitors, proprotein convertase PC9 stimulators, ATP dependent RNA helicase DDX3X inhibitors, reverse transcriptase priming complex inhibitors, G6PD and NADH-oxidase inhibitors, pharmacokinetic enhancers, HIV gene therapy, and HIV vaccines, or any combinations thereof,

optionally wherein the additional therapeutic agents are selected from the group consisting of HIV protease inhibiting compounds, HIV non-nucleoside inhibitors of reverse transcriptase, HIV non-nucleotide inhibitors of reverse transcriptase, HIV nucleoside inhibitors of reverse transcriptase, HIV nucleotide inhibitors of reverse transcriptase, HIV integrase inhibitors, gp41 inhibitors, CXCR4 inhibitors, gp120 inhibitors, CCR5 inhibitors, capsid polymerization inhibitors, pharmacokinetic enhancers, and other drugs for treating HIV, or any combinations thereof,

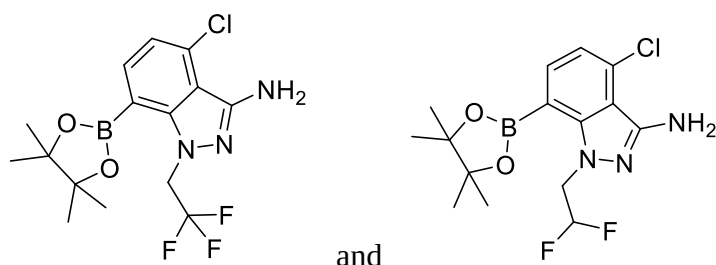
optionally wherein said compound is combined with

- i) 4'-ethynyl-2-fluoro-2'-deoxyadenosine, bictegravir or a pharmaceutically acceptable salt thereof, abacavir sulfate, tenofovir, tenofovir disoproxil, tenofovir disoproxil fumarate, tenofovir disoproxil hemifumarate, tenofovir alafenamide, or tenofovir alafenamide hemifumarate; or
- ii) 4'-ethynyl-2-fluoro-2'-deoxyadenosine, bictegravir, or a pharmaceutically acceptable salt thereof, tenofovir alafenamide, tenofovir alafenamide fumarate or tenofovir alafenamide hemifumarate; or

- iii) 4'-ethynyl-2-fluoro-2'-deoxyadenosine, bictegavir, or a pharmaceutically acceptable salt thereof, tenofovir disoproxil, tenofovir disoproxil hemifumarate or tenofovir disoproxil fumarate; or
- iv) a first additional therapeutic agent selected from the group consisting of 4'-ethynyl-2-fluoro-2'-deoxyadenosine, abacavir sulfate, tenofovir, tenofovir disoproxil, tenofovir disoproxil fumarate, tenofovir alafenamide, and tenofovir alafenamide hemifumarate, and a second additional therapeutic agent selected from the group consisting of emtricitabine and lamivudine; or
- v) a first additional therapeutic agent selected from the group consisting of 4'-ethynyl-2-fluoro-2'-deoxyadenosine, tenofovir alafenamide fumarate, tenofovir alafenamide and tenofovir alafenamide hemifumarate, and a second additional therapeutic agent, wherein the second additional therapeutic agent is emtricitabine; or
- vi) a first additional therapeutic agent selected from the group consisting of 4'-ethynyl-2-fluoro-2'-deoxyadenosine, tenofovir disoproxil fumarate, tenofovir disoproxil and tenofovir disoproxil hemifumarate, and a second additional therapeutic agent, wherein the second additional therapeutic agent is emtricitabine.

12. The pharmaceutical composition of any one of claims 5-6, wherein the composition is an oral formulation or a parenteral formulation, optionally wherein the parenteral formulation is administered subcutaneously or intramuscularly to a subject in need thereof.

13. A compound selected from the group consisting of:



14. The parenteral formulation of claim 12, wherein the formulation comprises

- i) saline and optionally further comprises a poloxamer, optionally wherein said poloxamer is poloxamer 338 or poloxamer 188, optionally wherein said poloxamer is poloxamer 188, the concentration of poloxamer 188 in saline is about 1% to about 10%, optionally about 1% to about 3%, optionally about 2%; or
- ii) N-methyl-2-pyrrolidone, optionally wherein the formulation consists essentially of N-methyl-2-pyrrolidone; or
- iii) dimethyl sulfoxide, optionally wherein the formulation consists essentially of dimethyl sulfoxide; or
- iv) water and/or an alcohol, optionally wherein the alcohol is ethanol and/or polyethylene glycol, optionally wherein the polyethylene glycol has an average molecular weight of about 200 g/mol, and/or an inorganic base, optionally wherein said inorganic base is sodium hydroxide.

15. The parenteral formulation of claims 12 and 14, part iv), wherein the formulation comprises about 5% to about 20% ethanol, about 5% to about 20% water, and about 60% to about 90% polyethylene glycol 200; optionally comprising about 10% to about 15% ethanol, about 10% to about 15% water, and about 70% to about 80% polyethylene glycol 200; optionally comprising about 10% ethanol, about 12% water, and about 78% polyethylene glycol 200.

16. The formulation of any one of claims 12, 14 and 15, wherein the compound is present as a sodium salt.