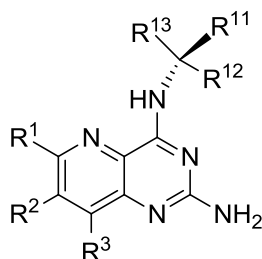


We claim:

1. A compound, or a pharmaceutically acceptable salt thereof, of Formula (IVa):



Formula (IVa)

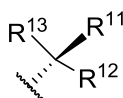
wherein:

R¹ is hydrogen;

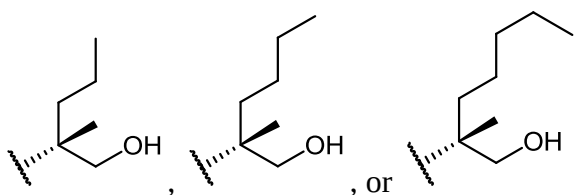
R² is selected from the group consisting of hydrogen, methyl, fluoro, and chloro;

R³ is selected from the group consisting of hydrogen and methyl;

and wherein the moiety



is



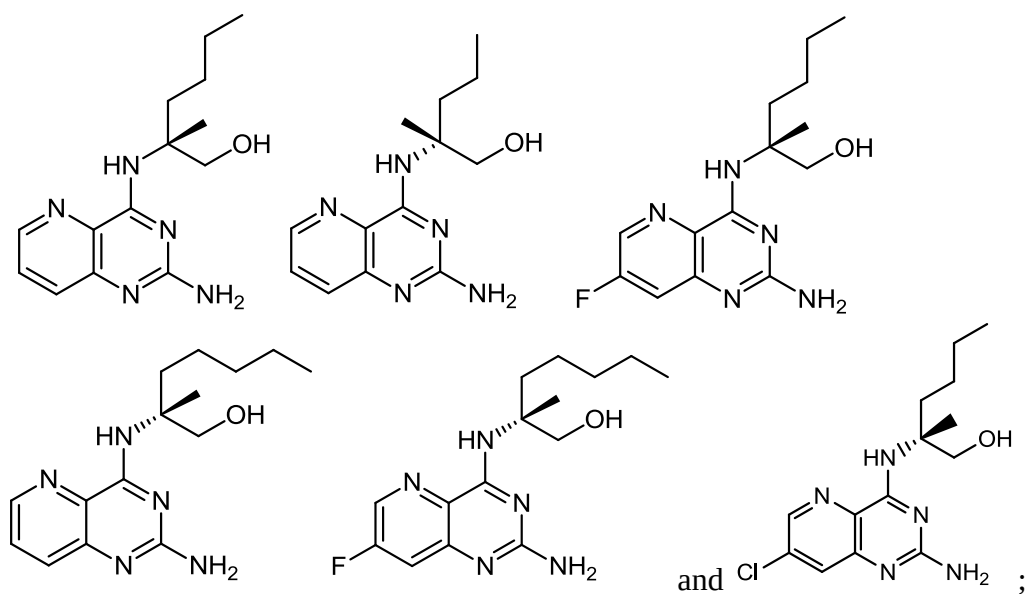
2. The compound of claim 1, or a pharmaceutically acceptable salt thereof, wherein:

R¹ is hydrogen;

R² is selected from the group consisting of hydrogen and fluoro; and

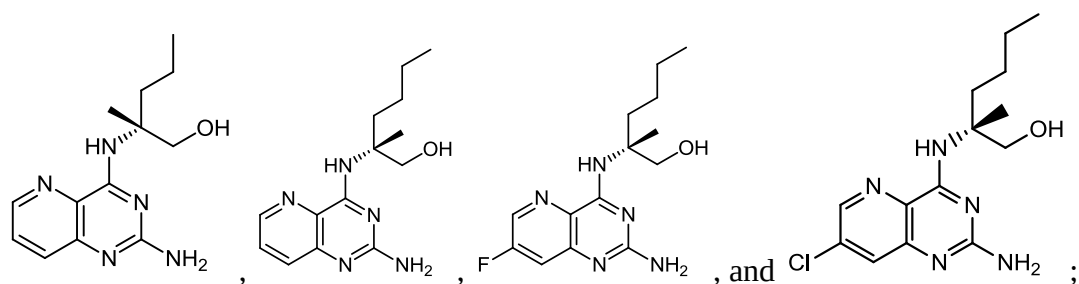
R³ is selected from the group consisting of hydrogen and methyl.

3. The compound of claim 1 or 2, selected from



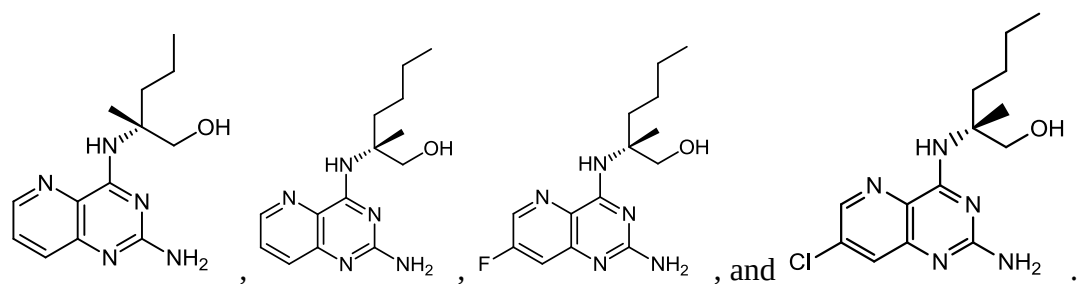
or a pharmaceutically acceptable salt thereof.

4. The compound of any one of claims 1 to 3, selected from

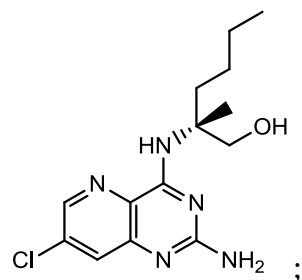


or a pharmaceutically acceptable salt thereof.

5. The compound of any one of claims 1 to 3, selected from

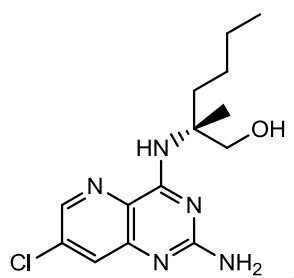


6. The compound of any one of claims 1 to 3, which is

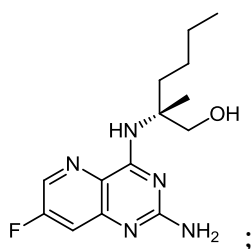


or a pharmaceutically acceptable salt thereof.

7. The compound of any one of claims 1 to 3, which is

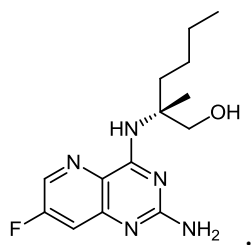


8. The compound of any one of claims 1 to 3, which is



or a pharmaceutically acceptable salt thereof.

9. The compound of any one of claims 1 to 3, which is



10. A pharmaceutical composition comprising a compound of any one of claims 1 to 9, or a pharmaceutically acceptable salt thereof, and a pharmaceutically acceptable excipient.

11. The pharmaceutical composition of claim 10, further comprising one or more additional therapeutic agents.

12. The pharmaceutical composition of claim 11, wherein one or more additional therapeutic agents are selected from the group consisting of HBV DNA polymerase inhibitors, toll-like receptor 7 modulators, toll-like receptor 8 modulators, toll-like receptor 7 and 8 modulators, toll-like receptor 3 modulators, interferon alpha ligands, HBsAg inhibitors, compounds targeting HbcAg, cyclophilin inhibitors, HBV therapeutic vaccines, HBV prophylactic vaccines, HBV viral entry inhibitors, NTCP inhibitors, antisense oligonucleotide targeting viral mRNA, short interfering RNAs (siRNA), hepatitis B virus E antigen inhibitors, HBx inhibitors, cccDNA inhibitors, HBV antibodies including HBV antibodies targeting the surface antigens of the hepatitis B virus, thymosin agonists, cytokines, nucleoprotein inhibitors (HBV core or capsid protein inhibitors), stimulators of retinoic acid-inducible gene 1, stimulators of NOD2, recombinant thymosin alpha-1 and hepatitis B virus replication inhibitors, hepatitis B surface antigen (HBsAg) secretion or assembly inhibitors, IDO inhibitors, and combinations thereof.

13. The composition of claim 11, wherein one or more additional therapeutic agents are selected from 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, pharmacokinetic enhancers, and combinations thereof.

14. Use of a compound of any one of claims 1-9, or a pharmaceutically acceptable salt thereof, in the manufacture of a medicament for treating or preventing a disease or condition responsive to the modulation of TLR-8.

15. Use of claim 14, wherein the medicament further comprises one or more additional therapeutic agents.

16. Use of a compound of any one of claims 1-9, or a pharmaceutically acceptable salt thereof, in the manufacture of a medicament for treating or preventing a hepatitis B viral infection.

17. Use of claim 16, wherein the medicament further comprises one or more additional therapeutic agents.

18. Use of claim 16 or 17, wherein the medicament further comprises one, two, three, or four additional therapeutic agents selected from the group consisting of HBV DNA polymerase inhibitors, toll-like receptor 7 modulators, toll-like receptor 8 modulators, Toll-like receptor 7 and 8 modulators, Toll-like receptor 3 modulators, interferon alpha ligands, HBsAg inhibitors, compounds targeting HbcAg, cyclophilin inhibitors, HBV therapeutic vaccines, HBV prophylactic vaccines, HBV viral entry inhibitors, NTCP inhibitors, antisense oligonucleotide targeting viral mRNA, short interfering RNAs (siRNA), hepatitis B virus E antigen inhibitors, HBx inhibitors, cccDNA inhibitors, HBV antibodies including HBV antibodies targeting the surface antigens of the hepatitis B virus, thymosin agonists, cytokines, nucleoprotein inhibitors (HBV core or capsid protein inhibitors), stimulators of retinoic acid-inducible gene 1, stimulators of NOD2, recombinant thymosin alpha-1 and hepatitis B virus replication inhibitors, hepatitis B surface antigen (HBsAg) secretion or assembly inhibitors, IDO inhibitors, and combinations thereof.

19. Use of any one of claims 16 to 18, wherein the medicament further comprises one, two, three, or four additional therapeutic agents selected from the group consisting of adefovir (Hepsera®), tenofovir disoproxil fumarate + emtricitabine (Truvada®), tenofovir disoproxil fumarate (Viread®), entecavir (Baraclude®), lamivudine (Epivir-HBV®), tenofovir alafenamide, tenofovir, tenofovir disoproxil, tenofovir alafenamide fumarate, tenofovir alafenamide hemifumarate, telbivudine (Tyzeka®), Clevudine®, emtricitabine (Emtriva®), peginterferon alfa-2b (PEG-Intron®), Multiferon®, interferon alpha 1b (Hapgen®), interferon alpha-2b (Intron A®), pegylated interferon alpha-2a (Pegasys®), interferon alfa-n1(Humoferon®), ribavirin, interferon beta-1a (Avonex®), Bioferon, Ingaron, Inmutag (Inferon), Algeron, Roferon-A, Oligotide, Zutectra, Shaferon, interferon alfa-2b (Axxo), Alfaferone, interferon alfa-2b, Feron, interferon-alpha 2 (CJ), Bevac, Laferonum, Vipeg, Blaufferon-B, Blaufferon-A, Intermax Alpha, Realdiron, Lanstion, Pegaferon, PDferon-B, alfainterferona 2b, Kalferon, Pegnano, Feronsure, PegiHep, Optipeg A, Realfa 2B, Reliferon, peginterferon alfa-2b, Reaferon-EC, Proquiferon, Uniferon, Urifron, interferon alfa-2b, Anterferon, Shanferon, MOR-22, interleukin-2 (IL-2), recombinant human interleukin-2 (Shenzhen Neptunus), Layfferon, Ka Shu Ning, Shang Sheng Lei Tai, Intefen, Sinogen, Fukangtai, Alloferon and celmoleukin.

20. Use of any one of claims 16 to 19, wherein the medicament further comprises one, two, three, or four additional therapeutic agents selected from entecavir, adefovir, tenofovir disoproxil fumarate, tenofovir alafenamide, tenofovir, tenofovir disoproxil, tenofovir alafenamide fumarate, tenofovir alafenamide hemifumarate, telbivudine and lamivudine.

21. Use of a compound of any one of claims 1-9, or a pharmaceutically acceptable salt thereof, in the manufacture of a medicament for treating or preventing a HIV infection.

22. Use of claim 21, wherein the medicament further comprises one or more additional therapeutic agents.

23. Use of claim 21 or 22, wherein the medicament further comprises one, two, three, or four additional therapeutic agents selected from the group consisting of HIV protease inhibiting compounds, HIV non-nucleoside 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, and other drugs for treating or preventing HIV, and combinations thereof.

24. Use of any one of claims 21 to 23, wherein the medicament further comprises one, two, three, or four additional therapeutic agents selected from Triumeq® (dolutegravir+abacavir +lamivudine), dolutegravir + abacavir sulfate + lamivudine, raltegravir, Truvada® (tenofovir disoproxil fumarate +emtricitabine, TDF+FTC), maraviroc, enfuvirtide , Epzicom® (Livexa®, abacavir sulfate +lamivudine, ABC+3TC), Trizivir® (abacavir sulfate+zidovudine+lamivudine, ABC+AZT+3TC), adefovir, adefovir dipivoxil, Stribild ® (elvitegravir+cobicistat+tenofovir disoproxil fumarate +emtricitabine), rilpivirine, rilpivirine hydrochloride, Complera® (Eviplera®, rilpivirine+tenofovir disoproxil fumarate +emtricitabine), cobicistat, Atripla® (efavirenz+tenofovir disoproxil fumarate +emtricitabine), atazanavir, atazanavir sulfate, dolutegravir, elvitegravir, Aluvia® (Kaletra®, lopinavir+ritonavir), ritonavir , emtricitabine , atazanavir sulfate + ritonavir, darunavir, lamivudine, Prolastin, fosamprenavir, fosamprenavir calcium, efavirenz, Combivir® (zidovudine+lamivudine, AZT+3TC), etravirine, nelfinavir, nelfinavir mesylate, interferon, didanosine, stavudine,

indinavir, indinavir sulfate, tenofovir + lamivudine, zidovudine, nevirapine, saquinavir, saquinavir mesylate, aldesleukin, zalcitabine, tipranavir, amprenavir, delavirdine, delavirdine mesylate, Radha-108 (Receptol), Hlviral, lamivudine + tenofovir disoproxil fumarate, efavirenz + lamivudine + tenofovir disoproxil fumarate, phosphazid, lamivudine + nevirapine + zidovudine, (2R,5S,13aR)-N-(2,4-difluorobenzyl)-8-hydroxy-7,9-dioxo-2,3,4,5,7,9,13,13a-octahydro-2,5-methanopyrido[1',2':4,5]pyrazino[2,1-b][1,3]oxazepine-10-carboxamide, (2S,5R,13aS)-N-(2,4-difluorobenzyl)-8-hydroxy-7,9-dioxo-2,3,4,5,7,9,13,13a-octahydro-2,5-methanopyrido[1',2':4,5]pyrazino[2,1-b][1,3]oxazepine-10-carboxamide, (1S,4R,12aR)-N-(2,4-difluorobenzyl)-7-hydroxy-6,8-dioxo-1,2,3,4,6,8,12,12a-octahydro-1,4-methanodipyrido[1,2-a:1',2'-d]pyrazine-9-carboxamide, (1R,4S,12aR)-7-hydroxy-6,8-dioxo-N-(2,4,6-trifluorobenzyl)-1,2,3,4,6,8,12,12a-octahydro-1,4-methanodipyrido[1,2-a:1',2'-d]pyrazine-9-carboxamide, (2R,5S,13aR)-8-hydroxy-7,9-dioxo-N-(2,4,6-trifluorobenzyl)-2,3,4,5,7,9,13,13a-octahydro-2,5-methanopyrido[1',2':4,5]pyrazino[2,1-b][1,3]oxazepine-10-carboxamide, and (1R,4S,12aR)-N-(2,4-difluorobenzyl)-7-hydroxy-6,8-dioxo-1,2,3,4,6,8,12,12a-octahydro-1,4-methanodipyrido[1,2-a:1',2'-d]pyrazine-9-carboxamide, abacavir, abacavir sulfate, tenofovir, tenofovir disoproxil, tenofovir disoproxil fumarate, tenofovir alafenamide and tenofovir alafenamide hemifumarate.

25. A kit comprising a compound of any one of claims 1-9, or a pharmaceutically acceptable salt thereof.

26. An article of manufacture comprising a unit dosage of a compound of any one of claims 1-9.

27. A compound of any one of claims 1-9, or a pharmaceutically acceptable salt thereof for use in medical therapy.

28. A compound of any one of claims 1-9, or a pharmaceutically acceptable salt thereof, for use in treating or preventing a HBV infection in a human.

29. A compound of any one of claims 1-9 or a pharmaceutically acceptable salt thereof, for use in modulating a toll-like receptor *in vitro*.