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UTILITY PATENT APPLICATION TRANSMITTAL

(Only for new nonprovisional applications under 37 CFR 1.53(b))

Attorney Docket No.	37JD-199059-US12
First Named Inventor	Jinfa Du et al.
Title	NUCLEOSIDE PHOSPHORAMIDATE PRODRUGS
Priority Mail Express® Label No.	E-FILED

APPLICATION ELEMENTS

See MPEP chapter 600 concerning utility patent application contents.

1. [ ] **Fee Transmittal Form** (PTO/SB/17 or equivalent)
2. [ ] **Applicant asserts small entity status.** See 37 CFR 1.27
3. [ ] **Applicant certifies micro entity status.** See 37 CFR 1.29. Applicant must attach form PTO/SB/15A or B or equivalent.
4. [X] **Specification** [*Total Pages* 751]
   Both the claims and abstract must start on a new page.
   (See MPEP § 608.01(a) for information on the preferred arrangement)
5. [ ] **Drawing(s)** (35 U.S.C. 113) [*Total Sheets*]
6. **Inventor's Oath or Declaration** [*Total Pages* 4]
   (including substitute statements under 37 CFR 1.64 and assignments serving as an oath or declaration under 37 CFR 1.63(e))
   a. [ ] Newly executed (original or copy)
   b. [X] A copy from a prior application (37 CFR 1.63(d))
7. [X] **Application Data Sheet** ** See note below.*
   See 37 CFR 1.76 (PTO/AIA/14 or equivalent)
8. **CD-ROM or CD-R** in duplicate, large table, or Computer Program (*Appendix*)
   [ ] Landscape Table on CD
9. **Nucleotide and/or Amino Acid Sequence Submission** (*if applicable, items a. – c. are required*)
   a. [ ] Computer Readable Form (CRF)
   b. [ ] Specification Sequence Listing on:
      i. [ ] CD-ROM or CD-R (2 copies); or
      ii. [ ] Paper
   c. [ ] Statements verifying identity of above copies

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ACCOMPANYING APPLICATION PAPERS

10. [ ] **Assignment Papers** (cover sheet & document(s))
    Name of Assignee
11. [ ] **37 CFR 3.73(c) Statement** (*when there is an assignee*) [ ] **Power of Attorney**
12. [ ] **English Translation Document** (*if applicable*)
13. [ ] **Information Disclosure Statement** (PTO/SB/08 or PTO-1449)
    [ ] Copies of citations attached
14. [X] **Preliminary Amendment**
15. [ ] **Return Receipt Postcard** (*MPEP § 503*) (*Should be specifically itemized*)
16. [ ] **Certified Copy of Priority Document(s)** (*if foreign priority is claimed*)
17. [ ] **Nonpublication Request** Under 35 U.S.C. 122(b)(2)(B)(i). Applicant must attach form PTO/SB/35 or equivalent.
18. [X] **Other:** Sequence Listing in PDF format and Request for Transfer of a Computer Readable Form

***Note:** (1) Benefit claims under 37 CFR 1.78 and foreign priority claims under 1.55 **must** be included in an Application Data Sheet (ADS).
(2) For applications filed under 35 U.S.C. 111, the application must contain an ADS specifying the applicant if the applicant is an assignee, person to whom the inventor is under an obligation to assign, or person who otherwise shows sufficient proprietary interest in the matter. See 37 CFR 1.46(b).

19. CORRESPONDENCE ADDRESS

[X] The address associated with Customer Number: 117796 **OR** [ ] Correspondence address below

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Signature	/Lorna L. Tanner/	Date	March 12, 2020
Name (Print/Type)	Lorna L. Tanner	Registration No. (Attorney/Agent)	50,782

SMRH:4842-3935-8391.1

Electronic Patent Application Fee Transmittal

Application Number:	
Filing Date:	
Title of Invention:	NUCLEOSIDE PHOSPHORAMIDATE PRODRUGS
First Named Inventor/Applicant Name:	Jinfa Du
Filer:	Joy Lynn Bala Nemirow/Joannah Laluces
Attorney Docket Number:	37JD-199059-US12

Filed as Large Entity

Filing Fees for Utility under 35 USC 111(a)

Description	Fee Code	Quantity	Amount	Sub-Total in USD($)
Basic Filing:				
UTILITY APPLICATION FILING	1011	1	300	300
Pages:				
Claims:				
Miscellaneous-Filing:				
Petition:				
Patent-Appeals-and-Interference:				
Post-Allowance-and-Post-Issuance:				

Description	Fee Code	Quantity	Amount	Sub-Total in USD($)
Extension-of-Time:				
Miscellaneous:				
		Total in USD ($)		**300**

Electronic Acknowledgement Receipt	
EFS ID:	38850577
Application Number:	16817318
International Application Number:	
Confirmation Number:	8569
Title of Invention:	NUCLEOSIDE PHOSPHORAMIDATE PRODRUGS
First Named Inventor/Applicant Name:	Jinfa Du
Customer Number:	117796
Filer:	Joy Lynn Bala Nemirow/Joannah Laluces
Filer Authorized By:	Joy Lynn Bala Nemirow
Attorney Docket Number:	37JD-199059-US12
Receipt Date:	12-MAR-2020
Filing Date:	
Time Stamp:	18:04:07
Application Type:	Utility under 35 USC 111(a)

Payment information:

Submitted with Payment	yes
Payment Type	DA
Payment was successfully received in RAM	$300
RAM confirmation Number	E20203BI04336942
Deposit Account	
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The Director of the USPTO is hereby authorized to charge indicated fees and credit any overpayment as follows:	

File Listing:

Document Number	Document Description	File Name	File Size(Bytes)/ Message Digest	Multi Part /.zip	Pages (if appl.)
1		37JD-199059-US12_Specification.pdf	2944654 297f655987e95d9a4e41b952deba3338c0488e1d	yes	750
	Multipart Description/PDF files in .zip description				
	Document Description		**Start**	**End**	
	Specification		1	678	
	Claims		679	749	
	Abstract		750	750	
Warnings:					
Information:					
2	Preliminary Amendment	37JD-199059-US12_Preliminary_Amendment.pdf	104415 0d1af938d587ce34f3368008274589f05cf45af7	no	3
Warnings:					
Information:					
3	Request for Transfer of a Computer Readable Form	37JD-199059-US12_Request_for_Transfer_of_Computer_Readable_Form.pdf	116587 d7f52fe02dbfc35915fd546c23ab4f103accad94	no	1
Warnings:					
Information:					
4	Sequence Listing	37JD-199059-US12_Sequence_Listing.pdf	35297 14f3251d32002fd7f905c52c676c9927c133a321	no	2
Warnings:					
Information:					
5	Application Data Sheet	37JD-199059-US12_Application_Data_Sheet.pdf	164279 af71b683f347ddeff8190cdcdfc09484d4025e1a	no	10

Warnings:					
Information:					
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6	Oath or Declaration filed	37JD-199059-US12_Executed_Declarations.pdf	482511 40c98bb26df36f83ae1f5401bbb5d3dff3f1a36ea	no	4
Warnings:					
Information:					
7	Transmittal of New Application	37JD-199059-US12_Utility_Patent_Application_Transmittal.pdf	104785 629ea254bab1efbc712af3c35bc4e9a51c2253c7	no	1
Warnings:					
Information:					
8	Fee Worksheet (SB06)	fee-info.pdf	30062 edd039167a697920e059d2490c6ccc934c0f2eac	no	2
Warnings:					
Information:					
		Total Files Size (in bytes):	3982590		

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New Applications Under 35 U.S.C. 111

If a new application is being filed and the application includes the necessary components for a filing date (see 37 CFR 1.53(b)-(d) and MPEP 506), a Filing Receipt (37 CFR 1.54) will be issued in due course and the date shown on this Acknowledgement Receipt will establish the filing date of the application.

National Stage of an International Application under 35 U.S.C. 371

If a timely submission to enter the national stage of an international application is compliant with the conditions of 35 U.S.C. 371 and other applicable requirements a Form PCT/DO/EO/903 indicating acceptance of the application as a national stage submission under 35 U.S.C. 371 will be issued in addition to the Filing Receipt, in due course.

New International Application Filed with the USPTO as a Receiving Office

If a new international application is being filed and the international application includes the necessary components for an international filing date (see PCT Article 11 and MPEP 1810), a Notification of the International Application Number and of the International Filing Date (Form PCT/RO/105) will be issued in due course, subject to prescriptions concerning national security, and the date shown on this Acknowledgement Receipt will establish the international filing date of the application.

NUCLEOSIDE PHOSPHORAMIDATE PRODRUGS

Field of Invention

The present invention pertains to nucleoside phosphoramidates and their use as agents for treating viral diseases. These compounds are inhibitors of RNA-dependent RNA viral replication and are useful as inhibitors of HCV NS5B polymerase, as inhibitors of HCV replication and for treatment of hepatitis C infection in mammals. The invention provides novel chemical compounds, and the use of these compounds alone or in combination with other antiviral agents for treating HCV infection.

Background

Hepatitis C virus (HCV) infection is a major health problem that leads to chronic liver disease, such as cirrhosis and hepatocellular carcinoma, in a substantial number of infected individuals, estimated to be 2-15% of the world's population. There are an estimated 4.5 million infected people in the United States alone, according to the U.S. Center for Disease Control. According to the World Health Organization, there are more than 200 million infected individuals worldwide, with at least 3 to 4 million people being infected each year. Once infected, about 20% of people clear the virus, but the rest can harbor HCV the rest of their lives. Ten to twenty percent of chronically infected individuals eventually develop liver-destroying cirrhosis or cancer. The viral disease is transmitted parenterally by contaminated blood and blood products, contaminated needles, or sexually and vertically from infected mothers or carrier mothers to their offspring. Current treatments for HCV infection, which are restricted to immunotherapy

with recombinant interferon-α alone or in combination with the nucleoside analog ribavirin, are of limited clinical benefit. Moreover, there is no established vaccine for HCV. Consequently, there is an urgent need for improved therapeutic agents that effectively combat chronic HCV infection.

The HCV virion is an enveloped positive-strand RNA virus with a single oligoribonucleotide genomic sequence of about 9600 bases which encodes a polyprotein of about 3,010 amino acids. The protein products of the HCV gene consist of the structural proteins C, E1, and E2, and the non-structural proteins NS2, NS3, NS4A and NS4B, and NS5A and NS5B. The nonstructural (NS) proteins are believed to provide the catalytic machinery for viral replication. The NS3 protease releases NS5B, the RNA-dependent RNA polymerase from the polyprotein chain. HCV NS5B polymerase is required for the synthesis of a double-stranded RNA from a single-stranded viral RNA that serves as a template in the replication cycle of HCV. Therefore, NS5B polymerase is considered to be an essential component in the HCV replication complex (K. Ishi, et al, *Heptology*, 1999, 29: 1227-1235; V. Lohmann, et al., *Virology*, 1998, 249: 108-118). Inhibition of HCV NS5B polymerase prevents formation of the double-stranded HCV RNA and therefore constitutes an attractive approach to the development of HCV-specific antiviral therapies.

HCV belongs to a much larger family of viruses that share many common features.

Flaviviridae Viruses

Gilead Exhibit 2023
PGR2023-00046 - Page 008

The Flaviviridae family of viruses comprises at least three distinct genera: *pestiviruses*, which cause disease in cattle and pigs; *flavivruses*, which are the primary cause of diseases such as dengue fever and yellow fever; and *hepaciviruses*, whose sole member is HCV. The flavivirus genus includes more than 68 members separated into groups on the basis of serological relatedness (Calisher et al., *J. Gen. Virol*, 1993,70,37-43). Clinical symptoms vary and include fever, encephalitis and hemorrhagic fever (*Fields Virology*, Editors: Fields, B. N., Knipe, D. M., and Howley, P. M., Lippincott-Raven Publishers, Philadelphia, PA, 1996, Chapter 31, 931-959). Flaviviruses of global concern that are associated with human disease include the Dengue Hemorrhagic Fever viruses (DHF), yellow fever virus, shock syndrome and Japanese encephalitis virus (Halstead, S. B., *Rev. Infect. Dis.*, 1984, 6, 251-264; Halstead, S. B., *Science*, 239:476-481, 1988; Monath, T. P., *New Eng. J. Med*, 1988, 319, 64 1-643).

The pestivirus genus includes bovine viral diarrhea virus (BVDV), classical swine fever virus (CSFV, also called hog cholera virus) and border disease virus (BDV) of sheep (Moennig, V. et al. *Adv. Vir. Res.* 1992, 41, 53-98). Pestivirus infections of domesticated livestock (cattle, pigs and sheep) cause significant economic losses worldwide. BVDV causes mucosal disease in cattle and is of significant economic importance to the livestock industry (Meyers, G. and Thiel, H.J., Advances in Virus Research, 1996, 47, 53-118; Moennig V., et al, Adv. Vir. Res. 1992, 41, 53-98). Human pestiviruses have not been as extensively characterized as the animal pestiviruses. However, serological surveys indicate considerable pestivirus exposure in humans.

Pestiviruses and hepaciviruses are closely related virus groups within the Flaviviridae family. Other closely related viruses in this family include the GB virus A,

Gilead Exhibit 2023
PGR2023-00046 - Page 009

GB virus A-like agents, GB virus-B and GB virus-C (also called hepatitis G virus, HGV). The hepacivirus group (hepatitis C virus; HCV) consists of a number of closely related but genotypically distinguishable viruses that infect humans. There are at least 6 HCV genotypes and more than 50 subtypes. Due to the similarities between pestiviruses and hepaciviruses, combined with the poor ability of hepaciviruses to grow efficiently in cell culture, bovine viral diarrhea virus (BVDV) is often used as a surrogate to study the HCV virus.

The genetic organization of pestiviruses and hepaciviruses is very similar. These positive stranded RNA viruses possess a single large open reading frame (ORF) encoding all the viral proteins necessary for virus replication. These proteins are expressed as a polyprotein that is co- and post-translationally processed by both cellular and virus-encoded proteinases to yield the mature viral proteins. The viral proteins responsible for the replication of the viral genome RNA are located within approximately the carboxy-terminal. Two-thirds of the ORF are termed nonstructural (NS) proteins. The genetic organization and polyprotein processing of the nonstructural protein portion of the ORF for pestiviruses and hepaciviruses is very similar. For both the pestiviruses and hepaciviruses, the mature nonstructural (NS) proteins, in sequential order from the amino-terminus of the nonstructural protein coding region to the carboxy-terminus of the ORF, consist of p7, NS2, NS3, NS4A, NS4B, NS5A, and NS5B.

The NS proteins of pestiviruses and hepaciviruses share sequence domains that are characteristic of specific protein functions. For example, the NS3 proteins of viruses in both groups possess amino acid sequence motifs characteristic of serine proteinases and of helicases (Gorbalenya et al., *Nature*, 1988, 333, 22; Bazan and Fletterick *Virology*,

Gilead Exhibit 2023
PGR2023-00046 - Page 0010

1989,171,637-639; Gorbalenya et al., *Nucleic Acid Res.*,1989, 17, 3889-3897). Similarly, the NS5B proteins of pestiviruses and hepaciviruses have the motifs characteristic of RNA-directed RNA polymerases (Koonin, E.V. and Dolja, V.V., *Crir. Rev. Biochem. Molec. Biol.* 1993, 28, 375-430).

The actual roles and functions of the NS proteins of pestiviruses and hepaciviruses in the lifecycle of the viruses are directly analogous. In both cases, the NS3 serine proteinase is responsible for all proteolytic processing of polyprotein precursors downstream of its position in the ORF (Wiskerchen and Collett, *Virology*, 1991, 184, 341-350; Bartenschlager et al., *J. Virol.* 1993, 67, 3835-3844; Eckart et al. *Biochem. Biophys. Res. Comm.* 1993,192, 399-406; Grakoui et al., *J. Virol.* 1993, 67, 2832-2843; Grakoui et al., *Proc. Natl. Acad Sci. USA* 1993, 90, 10583-10587; Hijikata et al., *J. Virol.* 1993, 67, 4665-4675; Tome et al., *J. Virol.*, 1993, 67, 4017-4026). The NS4A protein, in both cases, acts as a cofactor with the NS3 serine protease (Bartenschlager et al., *J. Virol.* 1994, 68, 5045-5055; Failla et al., *J. Virol.* 1994, 68, 3753-3760; Xu et al., *J. Virol.*, 1997, 71:53 12-5322). The NS3 protein of both viruses also functions as a helicase (Kim et al., *Biochem. Biophys. Res. Comm.*, 1995, 215, 160-166; Jin and Peterson, *Arch. Biochem. Biophys.*, 1995, 323, 47-53; Warrener and Collett, *J. Virol.* 1995, 69,1720-1726). Finally, the NS5B proteins of pestiviruses and hepaciviruses have the predicted RNA-directed RNA polymerases activity (Behrens et al., EMBO, 1996, 15, 12-22; Lechmann et al., *J. Virol.*, 1997, 71, 8416-8428; Yuan et al., *Biochem. Biophys. Res. Comm.* 1997, 232, 231-235; Hagedorn, PCT WO 97/12033; Zhong et al, *J. Virol.*, 1998, 72, 9365-9369).

Gilead Exhibit 2023
PGR2023-00046 - Page 0011

Currently, there are limited treatment options for individuals infected with hepatitis C virus. The current approved therapeutic option is the use of immunotherapy with recombinant interferon-α alone or in combination with the nucleoside analog ribavirin. This therapy is limited in its clinical effectiveness and only 50% of treated patients respond to therapy. Therefore, there is significant need for more effective and novel therapies to address the unmet medical need posed by HCV infection.

A number of potential molecular targets for drug development of direct acting antivirals as anti -HCV therapeutics have now been identified including, but not limited to, the NS2-NS3 autoprotease, the N3 protease, the N3 helicase and the NS5B polymerase. The RNA-dependent RNA polymerase is absolutely essential for replication of the single-stranded, positive sense, RNA genome and this enzyme has elicited significant interest among medicinal chemists.

Inhibitors of HCV NS5B as potential therapies for HCV infection have been reviewed: Tan, S.-L., et al., *Nature Rev. Drug Discov.*, 2002, 1, 867-881; Walker, M.P. et al., *Exp. Opin. Investigational Drugs*, 2003, 12, 1269-1280; Ni, Z-J., et al., *Current Opinion in Drug Discovery and Development*, 2004, 7, 446-459; Beaulieu, P. L., et al., *Current Opinion in Investigational Drugs*, 2004, 5, 838-850; Wu, J., et al., *Current Drug Targets-Infectious Disorders*, 2003, 3, 207-219; Griffith, R.C., et al, *Annual Reports in Medicinal Chemistry*, 2004, 39, 223-237; Carrol, S., et al., *Infectious Disorders-Drug Targets*, 2006, 6, 17-29. The potential for the emergence of resistant HCV strains and the need to identify agents with broad genotype coverage supports the need for continuing efforts to identify novel and more effective nucleosides as HCV NS5B inhibitors.

Gilead Exhibit 2023
PGR2023-00046 - Page 0012

Nucleoside inhibitors of NS5B polymerase can act either as a non-natural substrate that results in chain termination or as a competitive inhibitor which competes with nucleotide binding to the polymerase. To function as a chain terminator the nucleoside analog must be taken up by the cell and converted *in vivo* to a triphosphate to compete for the polymerase nucleotide binding site. This conversion to the triphosphate is commonly mediated by cellular kinases which imparts additional structural requirements on a potential nucleoside polymerase inhibitor. Unfortunately, this limits the direct evaluation of nucleosides as inhibitors of HCV replication to cell-based assays capable of *in situ* phosphorylation.

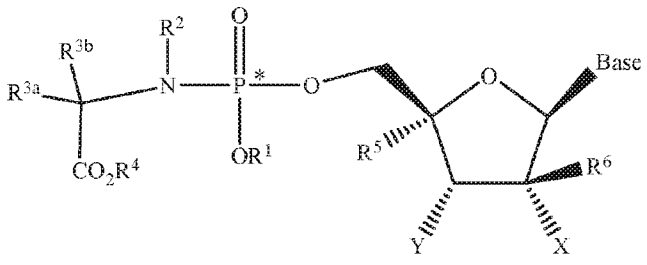
In some cases, the biological activity of a nucleoside is hampered by its poor substrate characteristics for one or more of the kinases needed to convert it to the active triphosphate form. Formation of the monophosphate by a nucleoside kinase is generally viewed as the rate limiting step of the three phosphorylation events. To circumvent the need for the initial phosphorylation step in the metabolism of a nucleoside to the active triphosphate analog, the preparation of stable phosphate prodrugs has been reported. Nucleoside phosphoramidate prodrugs have been shown to be precursors of the active nucleoside triphosphate and to inhibit viral replication when administered to viral infected whole cells (McGuigan, C., et al., *J. Med. Chem.*, 1996, 39, 1748-1753; Valette, G., et al., *J. Med. Chem.*, 1996, 39, 1981-1990; Balzarini, J., et al., *Proc. National Acad Sci USA*, 1996, 93, 7295-7299; Siddiqui, A. Q., et al., *J. Med. Chem.*, 1999, 42, 4122-4128; Eisenberg, E. J., et al., *Nucleosides, Nucleotides and Nucleic Acids*, 2001, 20, 1091-1098; Lee, W.A., et al., *Antimicrobial Agents and Chemotherapy*, 2005, 49, 1898); US 2006/0241064; and WO 2007/095269.

Gilead Exhibit 2023
PGR2023-00046 - Page 0013

Also limiting the utility of nucleosides as viable therapeutic agents is their sometimes poor physicochemical and pharmacokinetic properties. These poor properties can limit the intestinal absorption of an agent and limit uptake into the target tissue or cell. To improve on their properties prodrugs of nucleosides have been employed. It has been demonstrated that preparation of nucleoside phosphoramidates improves the systemic absorption of a nucleoside and furthermore, the phosphoramidate moiety of these "pronucleotides" is masked with neutral lipophilic groups to obtain a suitable partition coefficient to optimize uptake and transport into the cell dramatically enhancing the intracellular concentration of the nucleoside monophosphate analog relative to administering the parent nucleoside alone. Enzyme-mediated hydrolysis of the phosphate ester moiety produces a nucleoside monophosphate wherein the rate limiting initial phosphorylation is unnecessary.

SUMMARY OF THE INVENTION

The present invention is directed toward novel phosphoramidate prodrugs of nucleoside derivatives for the treatment of viral infections in mammals, which is a compound, its stereoisomers, salts (acid or basic addition salts), hydrates, solvates, or crystalline forms thereof, represented by the following structure:



I

wherein

Gilead Exhibit 2023
PGR2023-00046 - Page 0014

(a) R^1 is hydrogen, n-alkyl; branched alkyl; cycloalkyl; or aryl, which includes, but is not limited to, phenyl or naphthyl, where phenyl or naphthyl are optionally substituted with at least one of C_{1-6} alkyl, C_{2-6} alkenyl, C_{2-6} alkynyl, C_{1-6} alkoxy, F, Cl, Br, I, nitro, cyano, C_{1-6} haloalkyl, $-N(R^{1'})_2$, C_{1-6} acylamino, $-NHSO_2C_{1-6}$ alkyl, $-SO_2N(R^{1'})_2$, $COR^{1''}$, and $-SO_2C_{1-6}$ alkyl; ($R^{1'}$ is independently hydrogen or alkyl, which includes, but is not limited to, C_{1-20} alkyl, C_{1-10} alkyl, or C_{1-6} alkyl, $R^{1''}$ is –OR' or $-N(R^{1'})_2$);

(b) R^2 is hydrogen, C_{1-10} alkyl, R^{3a} or R^{3b} and R^2 together are $(CH_2)_n$ so as to form a cyclic ring that includes the adjoining N and C atoms, $C(O)CR^{3a}R^{3b}NHR^1$, where n is 2 to 4 and R^1, R^{3a}, and R^{3b};

(c) R^{3a} and R^{3b} are (i) independently selected from hydrogen, C_{1-10} alkyl, cycloalkyl, $-(CH_2)_c(NR^{3'})_2$, C_{1-6} hydroxyalkyl, $-CH_2SH$, $-(CH_2)_2S(O)_dMe$, $-(CH_2)_3NHC(=NH)NH_2$, (1H-indol-3-yl)methyl, (1H-imidazol-4-yl)methyl, $-(CH_2)_eCOR^{3''}$, aryl and aryl C_{1-3} alkyl, said aryl groups optionally substituted with a group selected from hydroxyl, C_{1-10} alkyl, C_{1-6} alkoxy, halogen, nitro and cyano; (ii) R^{3a} and R^{3b} both are C_{1-6} alkyl; (iii) R^{3a} and R^{3b} together are$(CH_2)_f$ so as to form a spiro ring; (iv) R^{3a} is hydrogen and R^{3b} and R^2 together are $(CH_2)_n$ so as to form a cyclic ring that includes the adjoining N and C atoms (v) R^{3b} is hydrogen and R^{3a} and R^2 together are $(CH_2)_n$ so as to form a cyclic ring that includes the adjoining N and C atoms, where c is 1 to 6, d is 0 to 2, e is 0 to 3, f is 2 to 5, n is 2 to 4, and where $R^{3'}$ is independently hydrogen or C_{1-6} alkyl and $R^{3''}$ is -OR' or $–N(R^{3'})_2$); (vi) R^{3a} is H and R^{3b} is H, CH_3, CH_2CH_3, $CH(CH_3)_2$, $CH_2CH(CH_3)_2$, $CH(CH_3)CH_2CH_3$, CH_2Ph, CH_2-indol-3-yl, $-CH_2CH_2SCH_3$, CH_2CO_2H, $CH_2C(O)NH_2$, CH_2CH_2COOH, $CH_2CH_2C(O)NH_2$, $CH_2CH_2CH_2CH_2NH_2$, $-CH_2CH_2CH_2NHC(NH)NH_2$, CH_2-imidazol-4-yl, CH_2OH, $CH(OH)CH_3$, CH_2((4'-OH)-Ph), CH_2SH, or lower cycloalkyl; or (viii) R^{3a} is CH_3, $-CH_2CH_3$, $CH(CH_3)_2$, $CH_2CH(CH_3)_2$, $CH(CH_3)CH_2CH_3$, CH_2Ph, CH_2-indol-3-yl, $-CH_2CH_2SCH_3$, CH_2CO_2H, $CH_2C(O)NH_2$, CH_2CH_2COOH, $CH_2CH_2C(O)NH_2$, $CH_2CH_2CH_2CH_2NH_2$, $-CH_2CH_2CH_2NHC(NH)NH_2$, CH_2-imidazol-4-yl, CH_2OH, $CH(OH)CH_3$, CH_2((4'-OH)-Ph), CH_2SH, or lower cycloalkyl and R^{3b} is H, where $R^{3'}$ is independently hydrogen or

Gilead Exhibit 2023
PGR2023-00046 - Page 0015

alkyl, which includes, but is not limited to, C_{1-20} alkyl, C_{1-10} alkyl, or C_{1-6} alkyl, $R^{3''}$ is –OR' or -N($R^{3'}$)$_2$);

(d) R^4 is hydrogen, C_{1-10} alkyl, C_{1-10} alkyl optionally substituted with a lower alkyl, alkoxy, di(lower alkyl)-amino, or halogen, C_{1-10} haloalkyl, C_{3-10} cycloalkyl, cycloalkyl alkyl, cycloheteroalkyl, aminoacyl, aryl, such as phenyl, heteroaryl, such as, pyridinyl, substituted aryl, or substituted heteroaryl;

(e) R^5 is H, a lower alkyl, CN, vinyl, O-(lower alkyl), hydroxyl lower alkyl, i.e., -(CH_2)$_p$OH, where p is 1 -6, including hydroxyl methyl (CH_2OH), CH_2F, N_3, CH_2CN, CH_2NH_2, CH_2NHCH_3, $CH_2N(CH_3)_2$, alkyne (optionally substituted), or halogen, including F, Cl, Br, or I, with the provisos that when X is OH, base is cytosine and R^6 is H, R^5 cannot be N_3 and when X is OH, R^6 is CH_3 or CH_2F and B is a purine base, R^5 cannot be H;

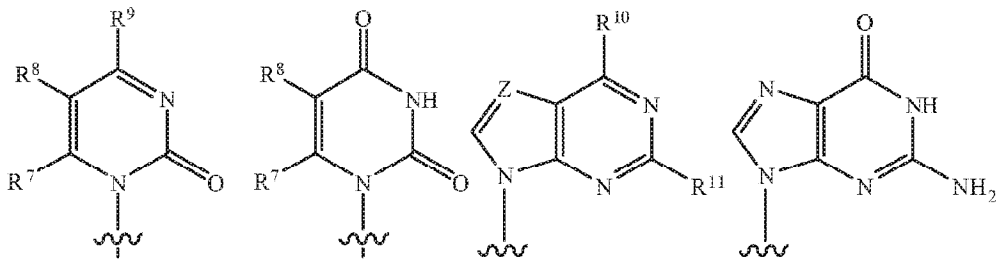
(f) R^6 is H, CH_3, CH_2F, CHF_2, CF_3, F, or CN;

(g) X is H, OH, F, OMe, halogen, NH_2, or N_3;

(h) Y is OH, H, C_{1-4} alkyl, C_{2-4} alkenyl, C_{2-4} alkynyl, vinyl, N_3, CN, Cl, Br, F, I, NO_2, OC(O)O(C_{1-4} alkyl), OC(O)O(C_{1-4} alkyl), OC(O)O(C_{2-4} alkynyl), OC(O)O(C_{2-4} alkenyl), OC_{1-10} haloalkyl, O(aminoacyl), O(C_{1-10} acyl), O(C_{1-4} alkyl), O(C_{2-4} alkenyl), S(C_{1-4} acyl), S(C_{1-4} alkyl), S(C_{2-4} alkynyl), S(C_{2-4} alkenyl), SO(C_{1-4} acyl), SO(C_{1-4} alkyl), SO(C_{2-4} alkynyl), SO(C_{2-4} alkenyl), SO_2(C_{1-4} acyl), SO_2(C_{1-4} alkyl), SO_2(C_{2-4} alkynyl), SO_2(C_{2-4} alkenyl), OS(O)$_2$(C_{1-4} acyl), OS(O)$_2$(C_{1-4} alkyl), OS(O)$_2$(C_{2-4} alkenyl), NH_2, NH(C_{1-4} alkyl), NH(C_{2-4} alkenyl), NH(C_{2-4} alkynyl), NH(C_{1-4} acyl), N(C_{1-4} alkyl)$_2$, N(C_{1-18} acyl)$_2$, wherein alkyl, alkynyl, alkenyl and vinyl are optionally substituted by N_3, CN, one to three halogen (Cl, Br, F, I), NO_2, C(O)O(C_{1-4} alkyl), C(O)O(C_{1-4} alkyl), C(O)O(C_{2-4} alkynyl), C(O)O(C_{2-4} alkenyl), O(C_{1-4} acyl), O(C_{1-4} alkyl), O(C_{2-4} alkenyl), S(C_{1-4} acyl), S(C_{1-4} alkyl), S(C_{2-4} alkynyl), S(C_{2-4} alkenyl), SO(C_{1-4} acyl), SO(C_{1-4} alkyl), SO(C_{2-4} alkynyl), SO(C_{2-4} alkenyl), SO_2(C_{1-4} acyl), SO_2(C_{1-4} alkyl), SO_2(C_{2-4} alkynyl), SO_2(C_{2-4} alkenyl), OS(O)$_2$(C_{1-4} acyl), OS(O)$_2$(C_{1-4} alkyl), OS(O)$_2$(C_{2-4} alkenyl), NH_2, NH(C_{1-4} alkyl), NH(C_{2-4} alkenyl), NH(C_{2-4} alkynyl), NH(C_{1-4} acyl), N(C_{1-4} alkyl)$_2$, N(C_{1-4} acyl)$_2$;

Gilead Exhibit 2023
PGR2023-00046 - Page 0016

the base is a naturally occurring or modified purine or pyrimidine base represented by the following structures:



a **b** **c** **d**

wherein

Z is N or CR^{12};

R^7, R^8,R^9, R^{10}, and $R^{11}$are independently H, F, Cl, Br, I, OH, OR', SH, SR', NH_2, NHR', NR'$_2$, lower alkyl of C_1-C_6, halogenated (F, Cl, Br, I) lower alkyl of C_1-C_6, lower alkenyl of C_2-C_6, halogenated (F, Cl, Br, I) lower alkenyl of C_2-C_6, lower alkynyl of C_2-C_6 such as C≡CH, halogenated (F, Cl, Br, I) lower alkynyl of C_2-C_6, lower alkoxy of C_1-C_6, halogenated (F, Cl, Br, I) lower alkoxy of C_1-C_6, CO_2H, CO_2R', $CONH_2$, CONHR', CONR'$_2$, $CH=CHCO_2H$, or $CH=CHCO_2R'$,

wherein R' is an optionally substituted alkyl , which includes, but is not limited to, an optionally substituted C_{1-20} alkyl, an optionally substituted C_{1-10} alkyl, an optionally substituted lower alkyl; an optionally substituted cycloalkyl; an optionally substituted alkynyl of C_2-C_6, an optionally substituted lower alkenyl of C_2-C_6, or optionally substituted acyl, which includes but is not limited to C(O) alkyl, C(O)(C_{1-20} alkyl), C(O)(C_{1-10} alkyl), or C(O)(lower alkyl) or alternatively, in the instance of NR'$_2$, each R' comprise at least one C atom that are joined to form a heterocycle comprising at least two carbon atoms; and

Gilead Exhibit 2023
PGR2023-00046 - Page 0017

R^{12} is H, halogen (including F, Cl, Br, I), OH, OR', SH, SR', NH_2, NHR', NR'_2, NO_2 lower alkyl of C_1-C_6, halogenated (F, Cl, Br, I) lower alkyl of C_1-C_6, lower alkenyl of C_2-C_6, halogenated (F, Cl, Br, I) lower alkenyl of C_2-C_6 , lower alkynyl of C_2-C_6, halogenated (F, Cl, Br, I) lower alkynyl of C_2-C_6, lower alkoxy of C_1-C_6, halogenated (F, Cl, Br, I) lower alkoxy of C_1-C_6, CO_2H, CO_2R', $CONH_2$, CONHR', $CONR'_2$, $CH=CHCO_2H$, or $CH=CHCO_2R'$; with the proviso that when base is represented by the structure c with R^{11} being hydrogen, R^{12} is not a: (i) $-C\equiv C-H$, (ii) $-C=CH_2$, or (iii) $-NO_2$.

DEFINITIONS

The phrase "a" or "an" entity as used herein refers to one or more of that entity; for example, a compound refers to one or more compounds or at least one compound. As such, the terms "a" (or "an"), "one or more", and "at least one" can be used interchangeably herein.

The phrase "as defined herein above" refers to the first definition provided in the Summary of the Invention.

The terms "optional" or "optionally" as used herein means that a subsequently described event or circumstance may but need not occur, and that the description includes instances where the event or circumstance occurs and instances in which it does not. For example, "optional bond" means that the bond may or may not be present, and that the description includes single, double, or triple bonds.

The term "independently" is used herein to indicate that a variable is applied in any one instance without regard to the presence or absence of a variable having that same or a different definition within the same compound. Thus, in a compound in which R appears twice and is defined as "independently carbon or nitrogen", both R's can be carbon, both R's can be nitrogen, or one R' can be carbon and the other nitrogen.

The term "alkenyl" refers to an unsubstituted hydrocarbon chain radical having from 2 to 10 carbon atoms having one or two olefinic double bonds, preferably one olefinic double bond. The term "$C_{2\text{-}N}$ alkenyl" refers to an alkenyl comprising 2 to N

Gilead Exhibit 2023
PGR2023-00046 - Page 0018

carbon atoms, where N is an integer having the following values: 3, 4, 5, 6, 7, 8, 9, or 10. The term "C_{2-10} alkenyl" refers to an alkenyl comprising 2 to 10 carbon atoms. The term "C_{2-4} alkenyl" refers to an alkenyl comprising 2 to 4 carbon atoms. Examples include, but are not limited to, vinyl, 1-propenyl, 2-propenyl (allyl) or 2-butenyl (crotyl).

The term "halogenated alkenyl" refers to an alkenyl comprising at least one of F, Cl, Br, and I.

The term "alkyl" refers to an unbranched or branched chain, saturated, monovalent hydrocarbon residue containing 1 to 30 carbon atoms. The term "C_{1-M} alkyl" refers to an alkyl comprising 1 to M carbon atoms, where M is an integer having the following values: 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14, 15, 16, 17, 18, 19, 20, 21, 22, 23, 24, 25, 26, 27, 28, 29, or 30. The term "C_{1-4} alkyl" refers to an alkyl containing 1 to 4 carbon atoms. The term "lower alkyl" denotes a straight or branched chain hydrocarbon residue comprising 1 to 6 carbon atoms. "C_{1-20} alkyl" as used herein refers to an alkyl comprising 1 to 20 carbon atoms. "C_{1-10} alkyl" as used herein refers to an alkyl comprising 1 to 10 carbons. Examples of alkyl groups include, but are not limited to, lower alkyl groups include methyl, ethyl, propyl, *i*-propyl, *n*-butyl, *i*-butyl, *t*-butyl or pentyl, isopentyl, neopentyl, hexyl, heptyl, and octyl. The term (ar)alkyl or (heteroaryl)alkyl indicate the alkyl group is optionally substituted by an aryl or a heteroaryl group respectively.

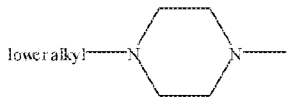
The term "cycloalkyl" refers to an unsubstituted or substituted carbocycle, in which the carbocycle contains 3 to 10 carbon atoms; preferably 3 to 8 carbon atoms; more preferably 3 to 6 carbon atoms (i.e., lower cycloalkyls). Examples of cycloalkyl groups include, but are not limited to, cyclopropyl, 2-methyl-cyclopropyl, cyclobutyl, cyclopentyl, and cyclohexyl.

The term "cycloalkyl alkyl" refers to an additionally unsubstituted or substituted alkyl substituted by a lower cycloalkyl. Examples of cycloalkyl alkyls include, but are not limited to, any one of methyl, ethyl, propyl, i-propyl, n-butyl, i-butyl, t-butyl or pentyl, isopentyl, neopentyl, hexyl, heptyl, and octyl that is substituted with cyclopropyl, 2-methyl-cyclopropyl, cyclobutyl, cyclopentyl, and cyclohexyl.

Gilead Exhibit 2023
PGR2023-00046 - Page 0019

The term "cycloheteroalkyl" refers to an unsubstituted or substituted heterocycle, in which the heterocycle contains 2 to 9 carbon atoms; preferably 2 to 7 carbon atoms; more preferably 2 to 5 carbon atoms. Examples of cycloheteroalkyls include, but are not limited to, aziridin-2-yl, *N*-C_{1-3}-alkyl-aziridin-2-yl, azetidinyl, *N*-C_{1-3}-alkyl-azetidin-m'-yl, pyrrolidin-m'-yl, *N*-C_{1-3}-alkyl-pyrrolidin-m'-yl, piperidin-m'-yl, and *N*-C_{1-3}-alkyl-piperidin-m'-yl, where m' is 2, 3, or 4 depending on the cycloheteroalkyl. Specific examples of N-C_{1-3}-alkyl-cycloheteroalkyls include, but are not limited to, N-methyl-aziridin-2-yl, N-methyl-azetidin-3-yl, N-methyl-pyrrolidin-3-yl, N-methyl-pyrrolidin-4-yl, N-methyl-piperidin-2-yl, N-methyl-piperidin-3-yl, and N-methyl-piperidin-4-yl. In the instance of R^4, the point of attachment between the cycloheteroalkyl ring carbon and the oxygen occurs at any one of m'

The term "heterocycle" refers to an unsubstituted or substituted heterocycle containing carbon, hydrogen, and at least one of N, O, and S, where the C and N can be trivalent or tetravalent, i.e., sp^2- or sp^3-hybridized. Examples of heterocycles include, but are not limited to, aziridine, azetidine, pyrrolidine, piperidine, imidazole, oxazole, piperazine, etc. In the instance of piperazine, as related to R^{10} for NR'_2, the corresponding opposite nitrogen atom of the piperazinyl is substituted by a lower alkyl represented by the following structure:



Preferably, the opposite nitrogen of the piperazinyl is substituted by a methyl group.

The term "halogenated alkyl" (or "haloalkyl") refers to an unbranched or branched chain alkyl comprising at least one of F, Cl, Br, and I. The term "C_{1-M} haloalkyl" refers to an alkyl comprising 1 to M carbon atoms that comprises at least one of F, Cl, Br, and I, where M is an integer having the following values: 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14, 15, 16, 17, 18, 19, 20, 21, 22, 23, 24, 25, 26, 27, 28, 29, or 30. "C_{1-3} haloalkyl" refers to a haloalkyl comprising 1 to 3 carbons and at least one of F, Cl, Br, and I. The term "halogenated lower alkyl" (or "lower haloalkyl") refers to a haloalkyl comprising 1 to 6

Gilead Exhibit 2023
PGR2023-00046 - Page 0020

carbon atoms and at least one of F, Cl, Br, and I. Examples include, but are not limited to, fluoromethyl, chloromethyl, bromomethyl, iodomethyl, difluoromethyl, dichloromethyl, dibromomethyl, diiodomethyl, trifluoromethyl, trichloromethyl, tribromomethyl, triiodomethyl, 1-fluoroethyl, 1-chloroethyl, 1-bromoethyl, 1-iodoethyl, 2-fluoroethyl, 2-chloroethyl, 2-bromoethyl, 2-iodoethyl, 2,2-difluoroethyl, 2,2-dichloroethyl, 2,2-dibromomethyl, 2-2-diiodomethyl, 3-fluoropropyl, 3-chloropropyl, 3-bromopropyl, 2,2,2-trifluoroethyl or 1,1,2,2,2-pentafluoroethyl.

The term "alkynyl" refers to an unbranched or branched hydrocarbon chain radical having from 2 to 10 carbon atoms, preferably 2 to 5 carbon atoms, and having one triple bond. The term "$C_{2\text{-}N}$ alkynyl" refers to an alkynyl comprising 2 to N carbon atoms, where N is an integer having the following values: 3, 4, 5, 6, 7, 8, 9, or 10. The term "C $C_{2\text{-}4}$ alkynyl" refers to an alkynyl comprising 2 to 4 carbon atoms. The term "$C_{2\text{-}10}$ alkynyl" refers to an alkynyl comprising 2 to 10 carbons. Examples include, but are limited to, ethynyl, 1-propynyl, 2-propynyl, 1-butynyl, 2-butynyl or 3-butynyl.

The term "halogenated alkynyl" refers to an unbranched or branched hydrocarbon chain radical having from 2 to 10 carbon atoms, preferably 2 to 5 carbon atoms, and having one triple bond and at least one of F, Cl, Br, and I.

The term "cycloalkyl" refers to a saturated carbocyclic ring comprising 3 to 8 carbon atoms, i.e. cyclopropyl, cyclobutyl, cyclopentyl, cyclohexyl, cycloheptyl or cyclooctyl. The term "$C_{3\text{-}7}$ cycloalkyl" as used herein refers to a cycloalkyl comprising 3 to 7 carbons in the carbocyclic ring.

The term "alkoxy" refers to an -O-alkyl group or an –O-cycloalkyl group, wherein alkyl and cycloalkyl are as defined above. Examples of –O-alkyl groups include, but are not limited to, methoxy, ethoxy, *n*-propyloxy, *i*-propyloxy, *n*-butyloxy, *i*-butyloxy, *t*-butyloxy. "Lower alkoxy" as used herein denotes an alkoxy group with a "lower alkyl" group as previously defined. "$C_{1\text{-}10}$ alkoxy" refers to an-O-alkyl wherein alkyl is $C_{1\text{-}10}$. Examples of –O-cycloalkyl groups include, but are not limited to, -O-*c*-propyl, -O-*c*-butyl, -O-*c*-pentyl, and –O-*c*-hexyl.

Gilead Exhibit 2023
PGR2023-00046 - Page 0021

The term "halogenated alkoxy" refers to an –O-alkyl group in which the alkyl group comprises at least one of F, Cl, Br, and I.

The term "halogenated lower alkoxy" refers to an –O-(lower alkyl) group in which the lower alkyl group comprises at least one of F, Cl, Br, and I.

The term "amino acid" includes naturally occurring and synthetic α, β γ or δ amino acids, and includes but is not limited to, amino acids found in proteins, i.e. glycine, alanine, valine, leucine, isoleucine, methionine, phenylalanine, tryptophan, proline, serine, threonine, cysteine, tyrosine, asparagine, glutamine, aspartate, glutamate, lysine, arginine and histidine. In a preferred embodiment, the amino acid is in the L-configuration. Alternatively, the amino acid can be a derivative of alanyl, valinyl, leucinyl, isoleucinyl, prolinyl, phenylalaninyl, tryptophanyl, methioninyl, glycinyl, serinyl, threoninyl, cysteinyl, tyrosinyl, asparaginyl, glutaminyl, aspartoyl, glutaroyl, lysinyl, argininyl, histidinyl, β-alanyl, β-valinyl, β-leucinyl, β-isoleucinyl, β-prolinyl, β-phenylalaninyl, β-tryptophanyl, β-methioninyl, β-glycinyl, β-serinyl, β-threoninyl, β-cysteinyl, β-tyrosinyl, β-asparaginyl, β-glutaminyl, β-aspartoyl, β-glutaroyl, β-lysinyl, β-argininyl or β-histidinyl. When the term amino acid is used, it is considered to be a specific and independent disclosure of each of the esters of α, β γ or δ glycine, alanine, valine, leucine, isoleucine, methionine, phenylalanine, tryptophan, proline, serine, threonine, cysteine, tyrosine, asparagine, glutamine, aspartate, glutamate, lysine, arginine and histidine in the D and L-configurations.

The term "aminoacyl" includes N,N-unsubstituted, N,N-monosubstituted, and N,N-disubstituted derivatives of naturally occurring and synthetic α, β γ or δ amino acyls, where the amino acyls are derived from amino acids. The amino-nitrogen can be substituted or unsubstituted. When the amino-nitrogen is substituted, the nitrogen is either mono- or di-substituted, where the substituent bound to the amino-nitrogen is a lower alkyl or an alkaryl. In the instance of its use for Y, the expression "O(aminoacyl)" is used. It is understood that the C3' carbon of the ribose is bound to the oxygen "O", which is then bound to the carbonyl carbon of the aminoacyl.

Gilead Exhibit 2023
PGR2023-00046 - Page 0022

The terms "alkylamino" or "arylamino" refer to an amino group that has one or two alkyl or aryl substituents, respectively.

The term "protected," as used herein and unless otherwise defined, refers to a group that is added to an oxygen, nitrogen, or phosphorus atom to prevent its further reaction or for other purposes. A wide variety of oxygen and nitrogen protecting groups are known to those skilled in the art of organic synthesis. Non-limiting examples include: C(O)-alkyl, C(O)Ph, C(O)aryl, CH_3, CH_2-alkyl, CH_2-alkenyl, CH_2Ph, CH_2-aryl, CH_2O-alkyl, CH_2O-aryl, SO_2-alkyl, SO_2-aryl, *tert*-butyldimethylsilyl, *tert*-butyldiphenylsilyl, and 1,3-(1,1,3,3-tetraisopropyldisiloxanylidene).

The term "aryl," as used herein, and unless otherwise specified, refers to substituted or unsubstituted phenyl (Ph), biphenyl, or naphthyl, preferably the term aryl refers to substituted or unsubstituted phenyl. The aryl group can be substituted with one or more moieties selected from among hydroxyl, F, Cl, Br, I, amino, alkylamino, arylamino, alkoxy, aryloxy, nitro, cyano, sulfonic acid, sulfate, phosphonic acid, phosphate, and phosphonate, either unprotected, or protected as necessary, as known to those skilled in the art, for example, as taught in T.W. Greene and P.G. M. Wuts, "Protective Groups in Organic Synthesis," 3rd ed., John Wiley & Sons, 1999.

The terms "alkaryl" or "alkylaryl" refer to an alkyl group with an aryl substituent, such as benzyl. The terms "aralkyl" or "arylalkyl" refer to an aryl group with an alkyl substituent.

The term "di(lower alkyl)amino-lower alkyl" refers to a lower alkyl substituted by an amino group that is itself substituted by two lower alkyl groups. Examples include, but are not limited to, $(CH_3)_2NCH_2$, $(CH_3)_2NCH_2CH_2$, $(CH_3)_2NCH_2CH_2CH_2$, etc. The examples above show lower alkyls substituted at the terminus carbon atom with an N,N-dimethyl-amino substituent. These are intended as examples only and are not intended to limit the meaning of the term "di(lower alkyl)amino-lower alkyl" so as to require the same. It is contemplated that the lower alkyl chain can be substituted with an N,N-di(lower alkyl)-amino at any point along the chain, e.g., CH_3CH(N-(lower alkyl)$_2$)CH_2CH_2.

Gilead Exhibit 2023
PGR2023-00046 - Page 0023

The term "halo," as used herein, includes chloro, bromo, iodo and fluoro.

The term "acyl" refers to a substituent containing a carbonyl moiety and a non-carbonyl moiety. The carbonyl moiety contains a double-bond between the carbonyl carbon and a heteroatom, where the heteroatom is selected from among O, N and S. When the heteroatom is N, the N is substituted by a lower alkyl. The non-carbonyl moiety is selected from straight, branched, and cyclic alkyl, which includes, but is not limited to, a straight, branched, or cyclic C_{1-20} alkyl, C_{1-10} alkyl, or lower alkyl; alkoxyalkyl, including methoxymethyl; aralkyl, including benzyl; aryloxyalkyl, such as phenoxymethyl; or aryl, including phenyl optionally substituted with halogen (F, Cl, Br, I), hydroxyl, C_1 to C_4 alkyl, or C_1 to C_4 alkoxy, sulfonate esters, such as alkyl or aralkyl sulphonyl, including methanesulfonyl, the mono, di or triphosphate ester, trityl or monomethoxytrityl, substituted benzyl, trialkylsilyl (e.g. dimethyl-t-butylsilyl) or diphenylmethylsilyl. When at least one aryl group is present in the non-carbonyl moiety, it is preferred that the aryl group comprises a phenyl group.

The term "lower acyl" refers to an acyl group in which the non-carbonyl moiety is lower alkyl.

The term "purine" or "pyrimidine" base includes, but is not limited to, adenine, N^6-alkylpurines, N^6-acylpurines (wherein acyl is C(O)(alkyl, aryl, alkylaryl, or arylalkyl), N^6-benzylpurine, N^6-halopurine, N^6-vinylpurine, N^6-acetylenic purine, N^6-acyl purine, N^6-hydroxyalkyl purine, N^6-allcylaminopurine, N^6-thioallcyl purine, N^2-alkylpurines, N^2-alkyl-6-thiopurines, thymine, cytosine, 5-fluorocytosine, 5-methylcytosine, 6-azapyrimidine, including 6-azacytosine, 2- and/or 4-mercaptopyrmidine, uracil, 5-halouracil, including 5-fluorouracil, C^5-alkylpyrimidines, C^5-benzylpyrimidines, C^5-halopyrimidines, C^5-vinylpyrimidine, C^5-acetylenic pyrimidine, C^5-acyl pyrimidine, C^5-hydroxyalkyl purine, C^5-amidopyrimidine, C^5-cyanopyrimidine, ,C^5-iodopyrimidine, C^6-lodo-pyrimidine, C^5-Br-vinyl pyrimidine, C^6-Br-vinyl pyrimidine, C^5-nitropyrimidine, C^5-amino-pyrimidine, N^2-alkylpurines, N^2-alkyl-6-thiopurines, 5-azacytidinyl, 5-azauracilyl, triazolopyridinyl, imidazolopyridinyl, pyrrolopyrimidinyl, and pyrazolopyrimidinyl. Purine bases include, but are not limited to, guanine, adenine,

Gilead Exhibit 2023
PGR2023-00046 - Page 0024

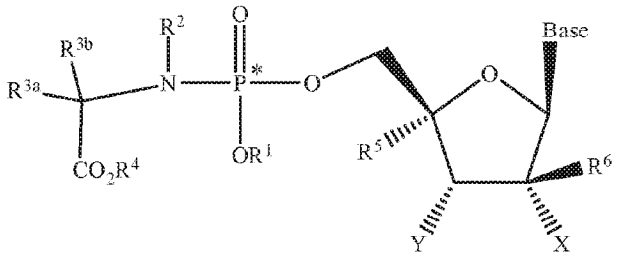
hypoxanthine, 2,6-diaminopurine, and 6-chloropurine. Functional oxygen and nitrogen groups on the base can be protected as necessary or desired. Suitable protecting groups are well known to those skilled in the art, and include trimethylsilyl, dimethylhexylsilyl, *t*-butyldimethylsilyl, and *t*-butyldiphenylsilyl, trityl, alkyl groups, and acyl groups such as acetyl and propionyl, methanesulfonyl, and p-toluenesulfonyl.

The term "tautomerism" and "tautomers" have their accepted plain meanings.

The term "P*" means that the phosphorous atom is chiral and that it has a corresponding Cahn-Ingold-Prelog designation of "R" or "S" which have their accepted plain meanings. It is contemplated that compounds of the formula I are racemic because the chirality at phosphorous. Applicants contemplate use of the racemate and/or the resolved enantiomers. In some instances, an asterisk does not appear next to the phosphoroamidate phosphorous atom. In these instances, it is understood that the phosphorous atom is chiral and that one of ordinary skill understands this to be so unless the substituents bound to the phosphorous exclude the possibility of chirality at phosphorous, such as in $P(O)Cl_3$.

DETAILED DESCRIPTION OF THE INVENTION

An aspect of the invention is directed to a compound, its salts, hydrates, solvates, crystalline forms, and the like represented by formula I:



wherein

(a) R^1 is hydrogen, n-alkyl; branched alkyl; cycloalkyl; or aryl, which includes, but is not limited to, phenyl or naphthyl, where phenyl or naphthyl are

Gilead Exhibit 2023
PGR2023-00046 - Page 0025

optionally substituted with at least one of C_{1-6} alkyl, C_{2-6} alkenyl, C_{2-6} alkynyl, C_{1-6} alkoxy, F, Cl, Br, I, nitro, cyano, C_{1-6} haloalkyl, $-N(R^{1'})_2$, C_{1-6} acylamino, $-NHSO_2C_{1-6}$ alkyl, $-SO_2N(R^{1'})_2$, $COR^{1''}$, and $-SO_2C_{1-6}$ alkyl; ($R^{1'}$ is independently hydrogen or alkyl, which includes, but is not limited to, C_{1-20} alkyl, C_{1-10} alkyl, or C_{1-6} alkyl, $R^{1''}$ is –OR' or $-N(R^{1'})_2$);

(b) R^2 is hydrogen, C_{1-10} alkyl, R^{3a} or R^{3b} and R^2 together are $(CH_2)_n$ so as to form a cyclic ring that includes the adjoining N and C atoms, $C(O)CR^{3a}R^{3b}NHR^1$, where n is 2 to 4 and R^1, R^{3a}, and R^{3b};

(c) R^{3a} and R^{3b} are (i) independently selected from hydrogen, C_{1-10} alkyl, cycloalkyl, $-(CH_2)_c(NR^{3'})_2$, C_{1-6} hydroxyalkyl, $-CH_2SH$, $-(CH_2)_2S(O)_dMe$, $-(CH_2)_3NHC(=NH)NH_2$, (1H-indol-3-yl)methyl, (1H-imidazol-4-yl)methyl, $-(CH_2)_eCOR^{3''}$, aryl and aryl C_{1-3} alkyl, said aryl groups optionally substituted with a group selected from hydroxyl, C_{1-10} alkyl, C_{1-6} alkoxy, halogen, nitro and cyano; (ii) R^{3a} and R^{3b} both are C_{1-6} alkyl; (iii) R^{3a} and R^{3b} together are$(CH_2)_f$ so as to form a spiro ring; (iv) R^{3a} is hydrogen and R^{3b} and R^2 together are $(CH_2)_n$ so as to form a cyclic ring that includes the adjoining N and C atoms (v) R^{3b} is hydrogen and R^{3a} and R^2 together are $(CH_2)_n$ so as to form a cyclic ring that includes the adjoining N and C atoms, where c is 1 to 6, d is 0 to 2, e is 0 to 3, f is 2 to 5, n is 2 to 4, and where $R^{3'}$ is independently hydrogen or C_{1-6} alkyl and $R^{3''}$ is -OR' or $-N(R^{3'})_2$); (vi) R^{3a} is H and R^{3b} is H, CH_3, CH_2CH_3, $CH(CH_3)_2$, $CH_2CH(CH_3)_2$, $CH(CH_3)CH_2CH_3$, CH_2Ph, CH_2-indol-3-yl, $-CH_2CH_2SCH_3$, CH_2CO_2H, $CH_2C(O)NH_2$, CH_2CH_2COOH, $CH_2CH_2C(O)NH_2$, $CH_2CH_2CH_2CH_2NH_2$, $-CH_2CH_2CH_2NHC(NH)NH_2$, CH_2-imidazol-4-yl, CH_2OH, $CH(OH)CH_3$, CH_2((4'-OH)-Ph), CH_2SH, or lower cycloalkyl; or (viii) R^{3a} is CH_3, $-CH_2CH_3$, $CH(CH_3)_2$, $CH_2CH(CH_3)_2$, $CH(CH_3)CH_2CH_3$, CH_2Ph, CH_2-indol-3-yl, $-CH_2CH_2SCH_3$, CH_2CO_2H, $CH_2C(O)NH_2$, CH_2CH_2COOH, $CH_2CH_2C(O)NH_2$, $CH_2CH_2CH_2CH_2NH_2$, $-CH_2CH_2CH_2NHC(NH)NH_2$, CH_2-imidazol-4-yl, CH_2OH, $CH(OH)CH_3$, CH_2((4'-OH)-Ph), CH_2SH, or lower cycloalkyl and R^{3b} is H, where $R^{3'}$ is independently hydrogen or alkyl, which includes, but is not limited to, C_{1-20} alkyl, C_{1-10} alkyl, or C_{1-6} alkyl, $R^{3''}$ is –OR' or $-N(R^{3'})_2$);

Gilead Exhibit 2023
PGR2023-00046 - Page 0026

(d) R^4 is hydrogen, C_{1-10} alkyl, C_{1-10} alkyl optionally substituted with a lower alkyl, alkoxy, di(lower alkyl)-amino, or halogen, C_{1-10} haloalkyl, C_{3-10} cycloalkyl, cycloalkyl alkyl, cycloheteroalkyl, aminoacyl, aryl, such as phenyl, heteroaryl, such as, pyridinyl, substituted aryl, or substituted heteroaryl;

(e) R^5 is H, a lower alkyl, CN, vinyl, O-(lower alkyl), hydroxyl lower alkyl, i.e., $-(CH_2)_pOH$, where p is 1 -6, including hydroxyl methyl (CH_2OH), CH_2F, N_3, CH_2CN, CH_2NH_2, CH_2NHCH_3, $CH_2N(CH_3)_2$, alkyne (optionally substituted), or halogen, including F, Cl, Br, or I, with the provisos that when X is OH, base is cytosine and R^6 is H, R^5 cannot be N_3 and when X is OH, R^6 is CH_3 or CH_2F and B is a purine base, R^5 cannot be H;

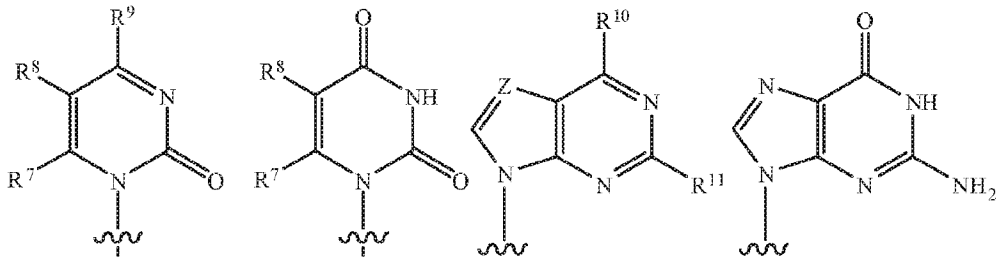
(f) R^6 is H, CH_3, CH_2F, CHF_2, CF_3, F, or CN;

(g) X is H, OH, F, OMe, halogen, NH_2, or N_3;

(h) Y is OH, H, C_{1-4} alkyl, C_{2-4} alkenyl, C_{2-4} alkynyl, vinyl, N_3, CN, Cl, Br, F, I, NO_2, $OC(O)O(C_{1-4}$ alkyl), $OC(O)O(C_{1-4}$ alkyl), $OC(O)O(C_{2-4}$ alkynyl), $OC(O)O(C_{2-4}$ alkenyl), OC_{1-10} haloalkyl, O(aminoacyl), $O(C_{1-10}$ acyl), $O(C_{1-4}$ alkyl), $O(C_{2-4}$ alkenyl), $S(C_{1-4}$ acyl), $S(C_{1-4}$ alkyl), $S(C_{2-4}$ alkynyl), $S(C_{2-4}$ alkenyl), $SO(C_{1-4}$ acyl), $SO(C_{1-4}$ alkyl), $SO(C_{2-4}$ alkynyl), $SO(C_{2-4}$ alkenyl), $SO_2(C_{1-4}$ acyl), $SO_2(C_{1-4}$ alkyl), $SO_2(C_{2-4}$ alkynyl), $SO_2(C_{2-4}$ alkenyl), $OS(O)_2(C_{1-4}$ acyl), $OS(O)_2(C_{1-4}$ alkyl), $OS(O)_2(C_{2-4}$ alkenyl), NH_2, $NH(C_{1-4}$ alkyl), $NH(C_{2-4}$ alkenyl), $NH(C_{2-4}$ alkynyl), $NH(C_{1-4}$ acyl), $N(C_{1-4}$ alkyl)$_2$, $N(C_{1-18}$ acyl)$_2$, wherein alkyl, alkynyl, alkenyl and vinyl are optionally substituted by N_3, CN, one to three halogen (Cl, Br, F, I), NO_2, $C(O)O(C_{1-4}$ alkyl), $C(O)O(C_{1-4}$ alkyl), $C(O)O(C_{2-4}$ alkynyl), $C(O)O(C_{2-4}$ alkenyl), $O(C_{1-4}$ acyl), $O(C_{1-4}$ alkyl), $O(C_{2-4}$ alkenyl), $S(C_{1-4}$ acyl), $S(C_{1-4}$ alkyl), $S(C_{2-4}$ alkynyl), $S(C_{2-4}$ alkenyl), $SO(C_{1-4}$ acyl), $SO(C_{1-4}$ alkyl), $SO(C_{2-4}$ alkynyl), $SO(C_{2-4}$ alkenyl), $SO_2(C_{1-4}$ acyl), $SO_2(C_{1-4}$ alkyl), $SO_2(C_{2-4}$ alkynyl), $SO_2(C_{2-4}$ alkenyl), $OS(O)_2(C_{1-4}$ acyl), $OS(O)_2(C_{1-4}$ alkyl), $OS(O)_2(C_{2-4}$ alkenyl), NH_2, $NH(C_{1-4}$ alkyl), $NH(C_{2-4}$ alkenyl), $NH(C_{2-4}$ alkynyl), $NH(C_{1-4}$ acyl), $N(C_{1-4}$ alkyl)$_2$, $N(C_{1-4}$ acyl)$_2$;

the base is a naturally occurring or modified purine or pyrimidine base represented by the following structures:

Gilead Exhibit 2023
PGR2023-00046 - Page 0027



a **b** **c** **d**

wherein

Z is N or CR^{12};

R^7, R^8,R^9, R^{10}, and $R^{11}$are independently H, F, Cl, Br, I, OH, OR', SH, SR', NH_2, NHR', NR'_2, lower alkyl of C_1-C_6, halogenated (F, Cl, Br, I) lower alkyl of C_1-C_6, lower alkenyl of C_2-C_6, halogenated (F, Cl, Br, I) lower alkenyl of C_2-C_6, lower alkynyl of C_2-C_6 such as C≡CH, halogenated (F, Cl, Br, I) lower alkynyl of C_2-C_6, lower alkoxy of C_1-C_6, halogenated (F, Cl, Br, I) lower alkoxy of C_1-C_6, CO_2H, CO_2R', $CONH_2$, CONHR', $CONR'_2$, $CH=CHCO_2H$, or $CH=CHCO_2R'$,

wherein R' is an optionally substituted alkyl , which includes, but is not limited to, an optionally substituted C_{1-20} alkyl, an optionally substituted C_{1-10} alkyl, an optionally substituted lower alkyl; an optionally substituted cycloalkyl; an optionally substituted alkynyl of C_2-C_6, an optionally substituted lower alkenyl of C_2-C_6, or optionally substituted acyl, which includes but is not limited to C(O) alkyl, C(O)(C_{1-20} alkyl), C(O)(C_{1-10} alkyl), or C(O)(lower alkyl) or alternatively, in the instance of NR'_2, each R' comprise at least one C atom that are joined to form a heterocycle comprising at least two carbon atoms; and

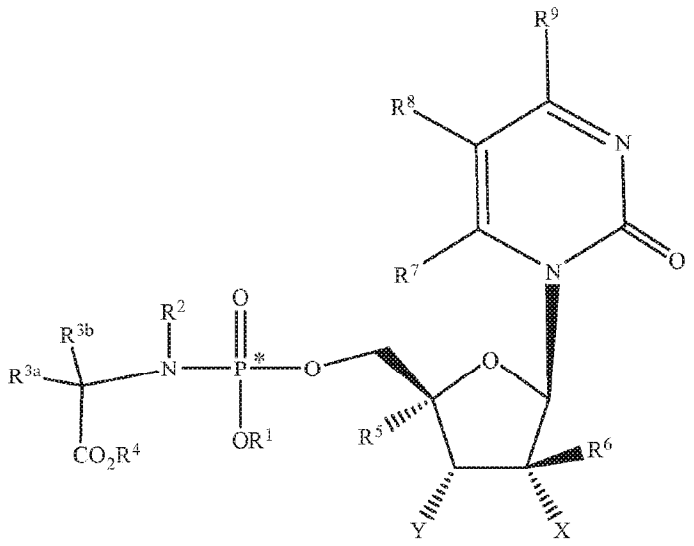
R^{12} is H, halogen (including F, Cl, Br, I), OH, OR', SH, SR', NH_2, NHR', NR'_2, NO_2 lower alkyl of C_1-C_6, halogenated (F, Cl, Br, I) lower alkyl of C_1-C_6, lower alkenyl of C_2-C_6, halogenated (F, Cl, Br, I) lower alkenyl of C_2-C_6 , lower alkynyl of C_2-C_6,

Gilead Exhibit 2023
PGR2023-00046 - Page 0028

halogenated (F, Cl, Br, I) lower alkynyl of C_2-C_6, lower alkoxy of C_1-C_6, halogenated (F, Cl, Br, I) lower alkoxy of C_1-C_6, CO_2H, CO_2R', $CONH_2$, $CONHR'$, $CONR'_2$, $CH{=}CHCO_2H$, or $CH{=}CHCO_2R'$; with the proviso that when base is represented by the structure c with R^{11} being hydrogen, R^{12} is not a: (i) $-C{\equiv}C-H$, (ii) $-C{=}CH_2$, or (iii) $-NO_2$.

As can be appreciated from the structure represented by formula **I** above, there are myriad ways to express the several embodiments and aspects of each embodiment of the present invention. As seen below, the inventors have disclosed certain embodiments directed to the compound of formula **I**, each having several aspects, based on the identity of the modified purine or pyrimidine base. This is not intended to be an explicit or implicit admission that the three embodiments are independent or distinct nor should it be interpreted as such. Rather, it is intended to convey information so that the full breadth of the present invention can be understood. Furthermore, the following embodiments, and aspects thereof, are not meant to be limiting on the full breadth of the invention as recited by the structure of formula **I**.

A first embodiment of the invention is directed to a compound represented by formula **I-1**:



I-1

Gilead Exhibit 2023
PGR2023-00046 - Page 0029

wherein

(a) R^1 is hydrogen, n-alkyl; branched alkyl; cycloalkyl; or aryl, which includes, but is not limited to, phenyl or naphthyl, where phenyl or naphthyl are optionally substituted with at least one of C_{1-6} alkyl, C_{2-6} alkenyl, C_{2-6} alkynyl, C_{1-6} alkoxy, F, Cl, Br, I, nitro, cyano, C_{1-6} haloalkyl, $-N(R^{1'})_2$, C_{1-6} acylamino, $-NHSO_2C_{1-6}$ alkyl, $-SO_2N(R^{1'})_2$, $COR^{1''}$, and $-SO_2C_{1-6}$ alkyl; ($R^{1'}$ is independently hydrogen or alkyl, which includes, but is not limited to, C_{1-20} alkyl, C_{1-10} alkyl, or C_{1-6} alkyl, $R^{1''}$ is –OR' or $-N(R^{1'})_2$);

(b) R^2 is hydrogen, C_{1-10} alkyl, R^{3a} or R^{3b} and R^2 together are $(CH_2)_n$ so as to form a cyclic ring that includes the adjoining N and C atoms, $C(O)CR^{3a}R^{3b}NHR^1$, where n is 2 to 4 and R^1, R^{3a}, and R^{3b};

(c) R^{3a} and R^{3b} are (i) independently selected from hydrogen, C_{1-10} alkyl, cycloalkyl, $-(CH_2)_c(NR^{3'})_2$, C_{1-6} hydroxyalkyl, $-CH_2SH$, $-(CH_2)_2S(O)_dMe$, $-(CH_2)_3NHC(=NH)NH_2$, (1H-indol-3-yl)methyl, (1H-imidazol-4-yl)methyl, $-(CH_2)_eCOR^{3''}$, aryl and aryl C_{1-3} alkyl, said aryl groups optionally substituted with a group selected from hydroxyl, C_{1-10} alkyl, C_{1-6} alkoxy, halogen, nitro and cyano; (ii) R^{3a} and R^{3b} both are C_{1-6} alkyl; (iii) R^{3a} and R^{3b} together are$(CH_2)_f$ so as to form a spiro ring; (iv) R^{3a} is hydrogen and R^{3b} and R^2 together are $(CH_2)_n$ so as to form a cyclic ring that includes the adjoining N and C atoms (v) R^{3b} is hydrogen and R^{3a} and R^2 together are $(CH_2)_n$ so as to form a cyclic ring that includes the adjoining N and C atoms, where c is 1 to 6, d is 0 to 2, e is 0 to 3, f is 2 to 5, n is 2 to 4, and where $R^{3'}$ is independently hydrogen or C_{1-6} alkyl and $R^{3''}$ is -OR' or $–N(R^{3'})_2$), (vi) R^{3a} is H and R^{3b} is H, CH_3, CH_2CH_3, $CH(CH_3)_2$, $CH_2CH(CH_3)_2$, $CH(CH_3)CH_2CH_3$, CH_2Ph, CH_2-indol-3-yl, $-CH_2CH_2SCH_3$, CH_2CO_2H, $CH_2C(O)NH_2$, CH_2CH_2COOH, $CH_2CH_2C(O)NH_2$, $CH_2CH_2CH_2CH_2NH_2$, $-CH_2CH_2CH_2NHC(NH)NH_2$, CH_2-imidazol-4-yl, CH_2OH, $CH(OH)CH_3$, CH_2((4'-OH)-Ph), CH_2SH, or lower cycloalkyl; or (viii) R^{3a} is CH_3, $-CH_2CH_3$, $CH(CH_3)_2$, $CH_2CH(CH_3)_2$, $CH(CH_3)CH_2CH_3$, CH_2Ph, CH_2-indol-3-yl, $-CH_2CH_2SCH_3$, CH_2CO_2H, $CH_2C(O)NH_2$, CH_2CH_2COOH, $CH_2CH_2C(O)NH_2$, $CH_2CH_2CH_2CH_2NH_2$, $-CH_2CH_2CH_2NHC(NH)NH_2$, CH_2-imidazol-4-yl, CH_2OH, $CH(OH)CH_3$, CH_2((4'-OH)-

Gilead Exhibit 2023
PGR2023-00046 - Page 0030

Ph), CH_2SH, or lower cycloalkyl and R^{3b} is H, where $R^{3'}$ is independently hydrogen or alkyl, which includes, but is not limited to, C_{1-20} alkyl, C_{1-10} alkyl, or C_{1-6} alkyl, $R^{3''}$ is –OR' or -$N(R^{3'})_2$);

(d) R^4 is hydrogen, C_{1-10} alkyl, C_{1-10} alkyl optionally substituted with a lower alkyl, alkoxy, di(lower alkyl)-amino, or halogen, C_{1-10} haloalkyl, C_{3-10} cycloalkyl, cycloalkyl alkyl, cycloheteroalkyl, aminoacyl, di(lower alkyl)-amino, aryl, such as phenyl, heteroaryl, such as, pyridinyl, substituted aryl, or substituted heteroaryl;

(e) R^5 is H, a lower alkyl, CN, vinyl, O-(lower alkyl), hydroxyl lower alkyl, i.e., -$(CH_2)_pOH$, where p is 1 -6, including hydroxyl methyl (CH_2OH), CH_2F, N_3, CH_2CN, CH_2NH_2, CH_2NHCH_3, $CH_2N(CH_3)_2$, alkyne (optionally substituted), or halogen, including F, Cl, Br, or I, with the provisos that when X is OH, base is cytosine and R^6 is H, R^5 cannot be N_3 and when X is OH, R^6 is CH_3 or CH_2F and B is a purine base, R^5 cannot be H;

(f) R^6 is H, CH_3, CH_2F, CHF_2, CF_3, F, or CN;

(g) X is H, OH, F, OMe, Cl, Br, I, NH_2, or N_3;

(h) Y is OH, H, C_{1-4} alkyl, C_{2-4} alkenyl, C_{2-4} alkynyl, vinyl, N_3, CN, Cl, Br, F, I, NO_2, $OC(O)O(C_{1-4}$ alkyl), $OC(O)O(C_{1-4}$ alkyl), $OC(O)O(C_{2-4}$ alkynyl), $OC(O)O(C_{2-4}$ alkenyl), OC_{1-10} haloalkyl, O(aminoacyl), $O(C_{1-10}$ acyl), $O(C_{1-4}$ alkyl), $O(C_{2-4}$ alkenyl), $S(C_{1-4}$ acyl), $S(C_{1-4}$ alkyl), $S(C_{2-4}$ alkynyl), $S(C_{2-4}$ alkenyl), $SO(C_{1-4}$ acyl), $SO(C_{1-4}$ alkyl), $SO(C_{2-4}$ alkynyl), $SO(C_{2-4}$ alkenyl), $SO_2(C_{1-4}$ acyl), $SO_2(C_{1-4}$ alkyl), $SO_2(C_{2-4}$ alkynyl), $SO_2(C_{2-4}$ alkenyl), $OS(O)_2(C_{1-4}$ acyl), $OS(O)_2(C_{1-4}$ alkyl), $OS(O)_2(C_{2-4}$ alkenyl), NH_2, $NH(C_{1-4}$ alkyl), $NH(C_{2-4}$ alkenyl), $NH(C_{2-4}$ alkynyl), $NH(C_{1-4}$ acyl), $N(C_{1-4}$ alkyl)$_2$, $N(C_{1-18}$ acyl)$_2$, wherein alkyl, alkynyl, alkenyl and vinyl are optionally substituted by N_3, CN, one to three halogen (Cl, Br, F, I), NO_2, $C(O)O(C_{1-4}$ alkyl), $C(O)O(C_{1-4}$ alkyl), $C(O)O(C_{2-4}$ alkynyl), $C(O)O(C_{2-4}$ alkenyl), $O(C_{1-4}$ acyl), $O(C_{1-4}$ alkyl), $O(C_{2-4}$ alkenyl), $S(C_{1-4}$ acyl), $S(C_{1-4}$ alkyl), $S(C_{2-4}$ alkynyl), $S(C_{2-4}$ alkenyl), $SO(C_{1-4}$ acyl), $SO(C_{1-4}$ alkyl), $SO(C_{2-4}$ alkynyl), $SO(C_{2-4}$ alkenyl), $SO_2(C_{1-4}$ acyl), $SO_2(C_{1-4}$ alkyl), $SO_2(C_{2-4}$ alkynyl), $SO_2(C_{2-4}$

Gilead Exhibit 2023
PGR2023-00046 - Page 0031

alkenyl), $OS(O)_2(C_{1-4}$ acyl), $OS(O)_2(C_{1-4}$ alkyl), $OS(O)_2(C_{2-4}$ alkenyl), NH_2, $NH(C_{1-4}$ alkyl), $NH(C_{2-4}$ alkenyl), $NH(C_{2-4}$ alkynyl), $NH(C_{1-4}$ acyl), $N(C_{1-4}$ alkyl)$_2$, $N(C_{1-4}$ acyl)$_2$;

(i) R^7, R^8,R^9 are independently H, F, Cl, Br, I, OH, OR', SH, SR', NH_2, NHR', NR'$_2$, lower alkyl, halogenated (F, Cl, Br, I) lower alkyl, lower alkenyl of C_2-C_6, CO_2H, CO_2R', $CONH_2$, CONHR', CONR'$_2$, wherein R' is a C_{1-20} alkyl; a C_{1-20} cycloalkyl; a C_2-C_6 alkenyl, a C_2-C_6 alkynyl.

A first aspect of the first embodiment is directed to a compound represented by formula **I-1**

wherein

(a) R^1 is hydrogen, n-alkyl or aryl, which includes, but is not limited to, phenyl or naphthyl, where phenyl or naphthyl are optionally substituted with at least one of C_{1-6} alkyl, C_{1-6} alkoxy, F, Cl, Br, I, nitro, cyano, C_{1-6} haloalkyl;

(b) R^2 is hydrogen or CH_3;

(c) R^{3a} and R^{3b} are independently (i) R^{3a} is hydrogen and R^{3b} and R^2 together are $(CH_2)_n$ so as to form a cyclic ring that includes the adjoining N and C atoms (v) R^{3b} is hydrogen and R^{3a} and R^2 together are $(CH_2)_n$ so as to form a cyclic ring that includes the adjoining N and C atoms, where c is 1 to 6, d is 0 to 2, e is 0 to 3, f is 3 to 5, n is 2 to 4, and where $R^{3'}$ is independently hydrogen or C_{1-6} alkyl and $R^{3''}$ is -OR' or $-N(R^{3'})_2$); (vi) R^{3a} is H and R^{3b} is H, CH_3, $CH(CH_3)_2$, $CH_2CH(CH_3)_2$, $CH(CH_3)CH_2CH_3$, CH_2Ph, CH_2-indol-3-yl, $-CH_2CH_2SCH_3$, CH_2CO_2H, $CH_2C(O)NH_2$, CH_2CH_2COOH, $CH_2CH_2C(O)NH_2$, $CH_2CH_2CH_2CH_2NH_2$, $-CH_2CH_2CH_2NHC(NH)NH_2$, CH_2-imidazol-4-yl, CH_2OH, $CH(OH)CH_3$, CH_2((4'-OH)-Ph), CH_2SH, or lower cycloalkyl; or (viii) R^{3a} is CH_3, $CH(CH_3)_2$, $CH_2CH(CH_3)_2$, $CH(CH_3)CH_2CH_3$, CH_2Ph, CH_2-indol-3-yl, $-CH_2CH_2SCH_3$, CH_2CO_2H, $CH_2C(O)NH_2$, CH_2CH_2COOH, $CH_2CH_2C(O)NH_2$, $CH_2CH_2CH_2CH_2NH_2$, $-CH_2CH_2CH_2NHC(NH)NH_2$, CH_2-imidazol-4-yl, CH_2OH, $CH(OH)CH_3$, CH_2((4'-OH)-Ph), or CH_2SH and R^{3b} is H;

Gilead Exhibit 2023
PGR2023-00046 - Page 0032

(d) R^4 is hydrogen, C_{1-10} alkyl, C_{1-10} alkyl optionally substituted with a lower alkyl, alkoxy, di(lower alkyl)-amino, or halogen, C_{1-10} haloalkyl, C_{3-10} cycloalkyl, cycloalkyl alkyl, cycloheteroalkyl, aminoacyl, aryl, such as phenyl, heteroaryl, such as, pyridinyl, substituted aryl, or substituted heteroaryl;

(e) R^5 is H, CN, CH_3, vinyl, OCH_3, OCH_2CH_3, CH_2OH, CH_2(halo), such as CH_2F, N_3, CH_2CN, CH_2N_3, CH_2NH_2, CH_2NHCH_3, $CH_2N(CH_3)_2$, halogen, including F, Cl, Br, or I, with the provisos that when X is OH , base is cytosine and R^6 is H, R^5 cannot be N_3;

(f) R^6 is H, CH_3, CH_2F, CHF_2, CF_3, F, or CN;

(g) X is H, OH, F, OMe, Cl, Br, I, NH_2, or N_3;

(h) Y is OH, H, C_{1-4} alkyl, vinyl, N_3, CN, Cl, Br, F, I, O(C_{1-6} acyl), O(C_{1-4} alkyl), NH_2, NH(C_{1-4} alkyl), NH(C_{2-4} alkenyl), NH(C_{2-4} alkynyl), NH(C_{1-4} acyl), N(C_{1-4} alkyl)$_2$, N(C_{1-18} acyl)$_2$, wherein alkyl, alkynyl, alkenyl and vinyl are optionally substituted by N_3, CN, one to three halogen (Cl, Br, F, I), NO_2, OC(O)O(C_{1-4} alkyl), OC(O)O(C_{1-4} alkyl), OC(O)O(C_{2-4} alkynyl), OC(O)O(C_{2-4} alkenyl), OC_{1-4} haloalkyl, O(aminoacyl), O(C_{1-4} acyl), O(C_{1-4} alkyl), O(C_{2-4} alkenyl), S(C_{1-4} acyl), S(C_{1-4} alkyl), S(C_{2-4} alkynyl), S(C_{2-4} alkenyl), SO(C_{1-4} acyl), SO(C_{1-4} alkyl), SO(C_{2-4} alkynyl), SO(C_{2-4} alkenyl), SO_2(C_{1-4} acyl), SO_2(C_{1-4} alkyl), SO_2(C_{2-4} alkynyl), SO_2(C_{2-4} alkenyl), OS(O)$_2$(C_{1-4} acyl), OS(O)$_2$(C_{1-4} alkyl), OS(O)$_2$(C_{2-4} alkenyl), NH_2, NH(C_{1-4} alkyl), NH(C_{2-4} alkenyl), NH(C_{2-4} alkynyl), NH(C_{1-4} acyl), N(C_{1-4} alkyl)$_2$, or N(C_{1-4} acyl)$_2$;

(i) R^7, R^8,R^9 are independently H, F, Cl, Br, I, OH, OR', SH, SR', NH_2, NHR', NR'$_2$, lower alkyl, halogenated (F, Cl, Br, I) lower alkyl, lower alkenyl of C_2-C_6, CO_2H, CO_2R', $CONH_2$, CONHR', CONR'$_2$, wherein R' is a C_{1-20} alkyl; a C_{1-20} cycloalkyl; a C_2-C_6 alkenyl, a C_2-C_6 alkynyl.

A second aspect of the first embodiment is directed to a compound represented by formula **I-1**

wherein

Gilead Exhibit 2023
PGR2023-00046 - Page 0033

(a) R^1 is hydrogen, n-alkyl or a substituted or unsubstituted phenyl, where the substitutent of the substituted phenyl is at least one of a C_{1-3} alkyl, a C_{1-3} alkoxy, F, Cl, Br, I, nitro, cyano, and a C_{1-3} haloalkyl;

(b) R^2 is hydrogen or CH_3;

(c) R^{3a} and R^{3b} are independently (i) R^{3a} is hydrogen and R^{3b} and R^2 together are $(CH_2)_n$ so as to form a cyclic ring that includes the adjoining N and C atoms (v) R^{3b} is hydrogen and R^{3a} and R^2 together are $(CH_2)_n$ so as to form a cyclic ring that includes the adjoining N and C atoms, where c is 1 to 6, d is 0 to 2, e is 0 to 3, f is 3 to 5, n is 2 to 4, and where $R^{3'}$ is independently hydrogen or C_{1-6} alkyl and $R^{3''}$ is -OR' or $-N(R^{3'})_2$); (vi) R^{3a} is H and R^{3b} is H, CH_3, $CH(CH_3)_2$, $CH_2CH(CH_3)_2$, $CH(CH_3)CH_2CH_3$, CH_2Ph, CH_2-indol-3-yl, $-CH_2CH_2SCH_3$, CH_2CO_2H, $CH_2C(O)NH_2$, CH_2CH_2COOH, $CH_2CH_2C(O)NH_2$, $CH_2CH_2CH_2CH_2NH_2$, $-CH_2CH_2CH_2NHC(NH)NH_2$, CH_2-imidazol-4-yl, CH_2OH, $CH(OH)CH_3$, $CH_2((4'\text{-}OH)\text{-}Ph)$, CH_2SH, or lower cycloalkyl; or (viii) R^{3a} is CH_3, $CH(CH_3)_2$, $CH_2CH(CH_3)_2$, $CH(CH_3)CH_2CH_3$, CH_2Ph, CH_2-indol-3-yl, $-CH_2CH_2SCH_3$, CH_2CO_2H, $CH_2C(O)NH_2$, CH_2CH_2COOH, $CH_2CH_2C(O)NH_2$, $CH_2CH_2CH_2CH_2NH_2$, $-CH_2CH_2CH_2NHC(NH)NH_2$, CH_2-imidazol-4-yl, CH_2OH, $CH(OH)CH_3$, $CH_2((4'\text{-}OH)\text{-}Ph)$, or CH_2SH and R^{3b} is H;

(d) R^4 is hydrogen, CH_3, Et, ^{i}Pr, ^{n}Pr, ^{n}Bu, 2-butyl, ^{t}Bu, benzyl, cyclopropyl, cyclobutyl, cyclopentyl, cyclohexyl, N-methyl-aziridin-2-yl, N-methyl-azetidin-3-yl, N-methyl-pyrrolidin-3-yl, N-methyl-pyrrolidin-4-yl, N-methyl-piperidin-4-yl, lower haloalkyl, di(lower alkyl)amino-lower alkyl, or aminoacyl;

(e) R^5 is H, CN, CH_3, OCH_3, CH_2OH, CH_2(halo), such as CH_2F, N_3, CH_2CN, CH_2N_3, CH_2NH_2, CH_2NHCH_3, $CH_2N(CH_3)_2$, halogen, including F, Cl, Br, or I, with the provisos that when X is OH , base is cytosine and R^6 is H, R^5 cannot be N_3;

(f) R^6 is H, CH_3, CH_2F, CHF_2, CF_3, F, or CN;

(g) X is H, OH, F, OCH_3, NH_2, or N_3;

Gilead Exhibit 2023
PGR2023-00046 - Page 0034

(h) Y is OH, H, CH_3, vinyl, N_3, CN, Cl, Br, F, I, $OC(O)CH_3$, OCH_3, NH_2, $NHCH_3$, NH(vinyl), NH(acetyl), $NH(C(O)CH_3)$, $N(CH_3)_2$, $N(C(O)CH_3)_2$, or O(aminoacyl),

(i) R^7 and R^8 are independently H, F, Cl, Br, I, OH, OCH_3, SH, SCH_3, NH_2, $NHCH_3$, $N(CH_3)_2$, CH_3, $CH_{3-q}X_q$, where X is F, Cl, Br, or I and q is 1 to 3, vinyl, CO_2H, CO_2CH_3, $CONH_2$, $CONHCH_3$, or $CON(CH_3)_2$; and

(j) R^9 is selected from among OH, OCH_3, SH, SCH_3, NH_2, $NHCH_3$, $N(CH_3)_2$, OC(O)(C1-20 alkyl), which include but are not limited to $OC(O)(CH_2)_sCH_3$, NHC(O)(C1-20 alkyl), which include but are not limited to $NHC(O)(CH_2)_sCH_3$, and $N(C(O)(CH_2)_sCH_3)_2$, which include but is not limited to $N(C(O)(CH_2)_sCH_3)_2$, where s is an integer selected from 0, 1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14, 15, 16, 17, 18, and 19.

A third aspect of the first embodiment is directed to a compound represented by formula **I-1**

wherein

(a) R^1 is hydrogen, n-alkyl or a substituted or unsubstituted phenyl, where the substitutent of the substituted phenyl is at least one of a CH_3, OCH_3, F, Cl, Br, I, nitro, cyano, and a $CH_{3-q}X_q$, where X is F, Cl, Br, or I, and q is 1-3;

(b) R^2 is hydrogen or CH_3;

(c) R^{3a} is H and R^{3b} is H, CH_3, $CH(CH_3)_2$, $CH_2CH(CH_3)_2$, $CH(CH_3)CH_2CH_3$, CH_2Ph, CH_2-indol-3-yl, $-CH_2CH_2SCH_3$, CH_2CO_2H, $CH_2C(O)NH_2$, CH_2CH_2COOH, $CH_2CH_2C(O)NH_2$, $CH_2CH_2CH_2CH_2NH_2$, $-CH_2CH_2CH_2NHC(NH)NH_2$, CH_2-imidazol-4-yl, CH_2OH, $CH(OH)CH_3$, CH_2((4'-OH)-Ph), CH_2SH, or lower cycloalkyl or R^{3a} is CH_3, $CH(CH_3)_2$, $CH_2CH(CH_3)_2$, $CH(CH_3)CH_2CH_3$, CH_2Ph, CH_2-indol-3-yl, $-CH_2CH_2SCH_3$, CH_2CO_2H, $CH_2C(O)NH_2$, CH_2CH_2COOH, $CH_2CH_2C(O)NH_2$, $CH_2CH_2CH_2CH_2NH_2$, $-CH_2CH_2CH_2NHC(NH)NH_2$, CH_2-imidazol-4-yl, CH_2OH, $CH(OH)CH_3$, CH_2((4'-OH)-Ph), CH_2SH, or lower cycloalkyl and R^{3b} is H;

Gilead Exhibit 2023
PGR2023-00046 - Page 0035

(d) R^4 is hydrogen, CH_3, Et, ^{i}Pr, ^{n}Pr, ^{n}Bu, 2-butyl, ^{t}Bu, benzyl, cyclopropyl, cyclobutyl, cyclopentyl, cyclohexyl, N-methyl-aziridin-2-yl, N-methyl-azetidin-3-yl, N-methyl-pyrrolidin-3-yl, N-methyl-pyrrolidin-4-yl, lower haloalkyl, di(lower alkyl)amino-lower alkyl, or aminoacyl;

(e) R^5 is H, CN, CH_3, OCH_3, CH_2OH, CH_2(halo), such as CH_2F, N_3, CH_2CN, CH_2N_3, CH_2NH_2, CH_2NHCH_3, $CH_2N(CH_3)_2$, halogen, including F, Cl, Br, or I, with the provisos that when X is OH , base is cytosine and R^6 is H, R^5 cannot be N_3;

(f) R^6 is H, CH_3, CH_2F, CHF_2, CF_3, F, or CN;

(g) X is H, OH, F, OCH_3, NH_2, or N_3;

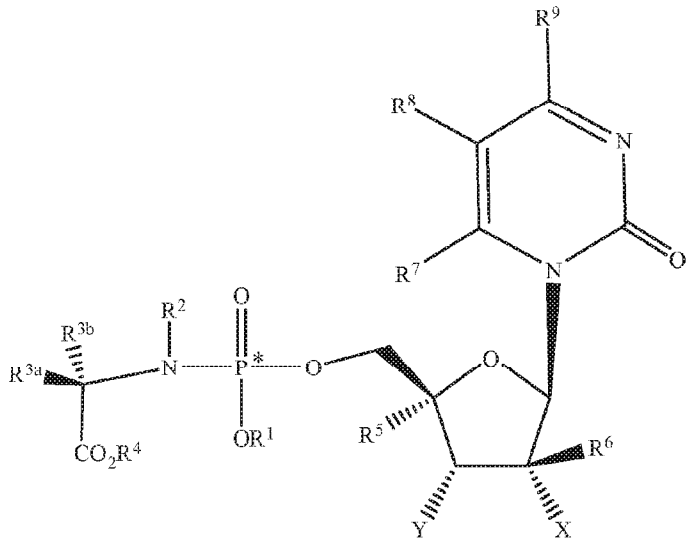
(h) Y is OH, H, CH_3, vinyl, N_3, CN, Cl, Br, F, I, $OC(O)CH_3$, OCH_3, NH_2, $NHCH_3$, NH(vinyl), NH(acetyl), $NH(C(O)CH_3)$, $N(CH_3)_2$, $N(C(O)CH_3)_2$, or O(aminoacyl);

(i) R^7 and R^8 are independently H, F, Cl, Br, I, OH, OCH_3, SH, SCH_3, NH_2, $NHCH_3$, $N(CH_3)_2$, CH_3, $CH_{3-q}X_q$, where X is F, Cl, Br, or I and q is 1 to 3, vinyl, CO_2H, CO_2CH_3, $CONH_2$, $CONHCH_3$, or $CON(CH_3)_2$, wherein R' is a C_{1-20} alkyl; a C_{1-20} cycloalkyl; a C_2-C_6 alkenyl, a C_2-C_6 alkynyl'; and

(j) R^9 is selected from among OH, OCH_3, SH, SCH_3, NH_2, $NHCH_3$, $N(CH_3)_2$, OC(O)(C1-20 alkyl), which include but are not limited to $OC(O)(CH_2)_sCH_3$, NHC(O)(C1-20 alkyl), which include but are not limited to $NHC(O)(CH_2)_sCH_3$, and $N(C(O)(CH_2)_sCH_3)_2$, which include but is not limited to $N(C(O)(CH_2)_sCH_3)_2$, where s is an integer selected from 0, 1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14, 15, 16, 17, 18, and 19.

A fourth aspect of the first embodiment is directed to a compound represented by formula **I-2**

Gilead Exhibit 2023
PGR2023-00046 - Page 0036



I-2

wherein

(a) R^1 is hydrogen, methyl, ethyl, *n*-propyl, *i*-propyl, or a substituted or unsubstituted phenyl, where the substitutent of the substituted phenyl is at least one of a CH_3, OCH_3, F, Cl, Br, I, nitro, cyano, and a $CH_{3-q}X_q$, where X is F, Cl, Br, or I, and q is 1-3;

(b) R^2 is hydrogen or CH_3;

(c) R^{3a} is H and R^{3b} is H, CH_3, $CH(CH_3)_2$, $CH_2CH(CH_3)_2$, $CH(CH_3)CH_2CH_3$, CH_2Ph, CH_2-indol-3-yl, $-CH_2CH_2SCH_3$, CH_2CO_2H, $CH_2C(O)NH_2$, CH_2CH_2COOH, $CH_2CH_2C(O)NH_2$, $CH_2CH_2CH_2CH_2NH_2$, $-CH_2CH_2CH_2NHC(NH)NH_2$, CH_2-imidazol-4-yl, CH_2OH, $CH(OH)CH_3$, CH_2((4'-OH)-Ph), CH_2SH, or lower cycloalkyl or R^{3a} is CH_3, $CH(CH_3)_2$, $CH_2CH(CH_3)_2$, $CH(CH_3)CH_2CH_3$, CH_2Ph, CH_2-indol-3-yl, $-CH_2CH_2SCH_3$, CH_2CO_2H, $CH_2C(O)NH_2$, CH_2CH_2COOH, $CH_2CH_2C(O)NH_2$, $CH_2CH_2CH_2CH_2NH_2$, $-CH_2CH_2CH_2NHC(NH)NH_2$, CH_2-imidazol-4-yl, CH_2OH, $CH(OH)CH_3$, CH_2((4'-OH)-Ph), CH_2SH, or lower cycloalkyl and R^{3b} is H;

Gilead Exhibit 2023
PGR2023-00046 - Page 0037

(d) R^4 is hydrogen, C_{1-10} alkyl, C_{1-10} alkyl optionally substituted with a lower alkyl, alkoxy or halogen, C_{1-10} haloalkyl, C_{3-10} cycloalkyl, cycloalkyl alkyl, cycloheteroalkyl, aminoacyl, di(lower alkyl)amino-lower alkyl, aryl, such as phenyl, heteroaryl, such as, pyridinyl, substituted aryl, or substituted heteroaryl;

(e) R^5 is H, CN, CH_3, OCH_3, CH_2OH, CH_2F, N_3, CH_2CN, CH_2N_3, CH_2NH_2, CH_2NHCH_3, $CH_2N(CH_3)_2$, halogen, including F, Cl, Br, or I, with the provisos that when X is OH , base is cytosine and R^6 is H, R^5 cannot be N_3;

(f) R^6 is H, CH_3, CH_2F, CHF_2, CF_3, F, or CN;

(g) X is H, OH, F, OCH_3, Cl, Br, I, NH_2, or N_3;

(h) Y is OH, H, CH_3, vinyl, N_3, CN, Cl, Br, F, I, $OC(O)CH_3$, OCH_3, NH_2, $NHCH_3$, NH(vinyl), NH(acetyl), $NH(C(O)CH_3)$, $N(CH_3)_2$, $N(C(O)CH_3)_2$, or O(aminoacyl);

(i) R^7 and R^8 are independently H, F, Cl, Br, I, OH, OCH_3, SH, SCH_3, NH_2, $NHCH_3$, $N(CH_3)_2$, CH_3, $CH_{3-q}X_q$, where X is F, Cl, Br, or I and q is 1 to 3, vinyl, CO_2H, CO_2CH_3, $CONH_2$, $CONHCH_3$, or $CON(CH_3)_2$, wherein R' is a C_{1-20} alkyl; a C_{1-20} cycloalkyl; a C_2-C_6 alkenyl, a C_2-C_6 alkynyl; and

(j) R^9 is selected from among OH, OCH_3, SH, SCH_3, NH_2, $NHCH_3$, $N(CH_3)_2$, OC(O)(C1-20 alkyl), which include but are not limited to $OC(O)(CH_2)_sCH_3$, NHC(O)(C1-20 alkyl), which include but are not limited to $NHC(O)(CH_2)_sCH_3$, and and $N(C(O)(CH_2)_sCH_3$, which include but is not limited to $N(C(O)(CH_2)_sCH_3)_2$, where s is an integer selected from 0, 1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14, 15, 16, 17, 18, and 19.

A fifth aspect of the first embodiment is directed to a compound represented by formula **I-2**

wherein

(a) R^1 is hydrogen, methyl, ethyl, *n*-propyl, *i*-propyl, phenyl, p-tolyl, p-bromo-phenyl, p-chloro-phenyl, p-fluorophenyl;

Gilead Exhibit 2023
PGR2023-00046 - Page 0038

(b) R^2 is hydrogen or CH_3;

(c) R^{3a} is H and R^{3b} is H, CH_3, $CH(CH_3)_2$, $CH_2CH(CH_3)_2$, $CH(CH_3)CH_2CH_3$, CH_2Ph, CH_2-indol-3-yl, $-CH_2CH_2SCH_3$, CH_2CO_2H, $CH_2C(O)NH_2$, CH_2CH_2COOH, $CH_2CH_2C(O)NH_2$, $CH_2CH_2CH_2CH_2NH_2$, $-CH_2CH_2CH_2NHC(NH)NH_2$, CH_2-imidazol-4-yl, CH_2OH, $CH(OH)CH_3$, CH_2((4'-OH)-Ph), CH_2SH, or lower cycloalkyl;

(d) R^4 is hydrogen, CH_3, Et, ^{i}Pr, ^{n}Pr, ^{n}Bu, 2-butyl, ^{t}Bu, benzyl, cyclopropyl, cyclobutyl, cyclopentyl, cyclohexyl, N-methyl-aziridin-2-yl, N-methyl-azetidin-3-yl, N-methyl-pyrrolidin-3-yl, N-methyl-pyrrolidin-4-yl, lower haloalkyl, di(lower alkyl)amino-lower alkyl, or aminoacyl;

(e) R^5 is H, CN, CH_3, OCH_3, CH_2OH, CH_2F, halogen, including F, Cl, Br, or I;

(f) R^6 is H, CH_3, CH_2F, CHF_2, CF_3, F, or CN;

(g) X is H, OH, F, OCH_3, NH_2, or N_3;

(h) Y is OH, H, CH_3, vinyl, N_3, CN, Cl, Br, F, I, $OC(O)CH_3$, OCH_3, or O(aminoacyl);

(i) R^7 and R^8 are independently H, F, Cl, Br, I, OH, OCH_3, SH, SCH_3, NH_2, $NHCH_3$, $N(CH_3)_2$, CH_3, $CH_{3-q}X_q$, where X is F, Cl, Br, or I and q is 1 to 3, vinyl, CO_2H, CO_2CH_3, $CONH_2$, $CONHCH_3$, or $CON(CH_3)_2$, wherein R' is a C_{1-20} alkyl; a C_{1-20} cycloalkyl; a C_2-C_6 alkenyl, a C_2-C_6 alkynyl; and

(j) R^9 is selected from among OH, OCH_3, SH, SCH_3, NH_2, $NHCH_3$, $N(CH_3)_2$, $OC(O)(C_{1-20}$ alkyl), which include but are not limited to $OC(O)(CH_2)_sCH_3$, $NHC(O)(C_{1-20}$ alkyl), which include but are not limited to $NHC(O)(CH_2)_sCH_3$, and $N(C(O)(CH_2)_sCH_3)_2$, which include but is not limited to $N(C(O)(CH_2)_sCH_3)_2$, where s is an integer selected from 0, 1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14, 15, 16, 17, 18, and 19.

A sixth aspect of the first embodiment is directed to a compound represented by formula **I-2**

Gilead Exhibit 2023
PGR2023-00046 - Page 0039

wherein

(a) R^1 is hydrogen, methyl, ethyl, *n*-propyl, *i*-propyl, phenyl, p-tolyl, p-bromo-phenyl, p-chloro-phenyl, p-fluorophenyl;

(b) R^2 is hydrogen or CH_3;

(c) R^{3a} is H and R^{3b} is H, CH_3, $CH(CH_3)_2$, $CH_2CH(CH_3)_2$, $CH(CH_3)CH_2CH_3$, CH_2Ph, or lower cycloalkyl;

(d) R^4 is hydrogen, $C_{1\text{-}10}$ alkyl, $C_{1\text{-}10}$ alkyl optionally substituted with a lower alkyl, alkoxy or halogen, $C_{1\text{-}10}$ haloalkyl, $C_{3\text{-}10}$ cycloalkyl, cycloalkyl alkyl, cycloheteroalkyl, aminoacyl, di(lower alkyl)amino-lower alkyl, aryl, such as phenyl, heteroaryl, such as, pyridinyl, substituted aryl, or substituted heteroaryl;

(e) R^5 is H, OMe, CN, CH_2F, F, Cl, Br, or I;

(f) R^6 is H, CH_3, CH_2F, CHF_2, CF_3, or F;

(g) X is H, OH, F, OCH_3, F, Cl, Br, I, or N_3;

(h) Y is H, OH, CH_3, F, Cl, Br, I, or N_3, OCH_3, $OC(O)CH_3$, or O(aminoacyl);

(i) R^7 and R^8 are independently H, F, Br, SCH_3, CH_3, $CH_{3\text{-}q}X_q$, where X is F, Cl, Br, or I and q is 1 to 3, vinyl, CO_2CH_3, $CONH_2$, $CONHCH_3$, or $CON(CH_3)_2$; and

(j) R^9 is selected from among OH, OCH_3, SH, SCH_3, NH_2, $NHCH_3$, $N(CH_3)_2$, $OC(O)(C_{1\text{-}20}$ alkyl), which include but are not limited to $OC(O)(CH_2)_sCH_3$, $NHC(O)(C_{1\text{-}20}$ alkyl), which include but are not limited to $NHC(O)(CH_2)_sCH_3$, and $N(C(O)(CH_2)_sCH_3)_2$, which include but is not limited to $N(C(O)(CH_2)_sCH_3)_2$, where s is an integer selected from 0, 1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14, 15, 16, 17, 18, and 19.

A seventh aspect of the first embodiment is directed to a compound represented by formula **I-2**

wherein

Gilead Exhibit 2023
PGR2023-00046 - Page 0040

(a) R^1 is hydrogen, methyl, ethyl, *n*-propyl, *i*-propyl, phenyl, p-tolyl, p-bromo-phenyl, p-chloro-phenyl, p-fluorophenyl;

(b) R^2 is hydrogen;

(c) R^{3a} is H and R^{3b} is H, CH_3, $CH(CH_3)_2$, $CH_2CH(CH_3)_2$, $CH(CH_3)CH_2CH_3$, CH_2Ph, or lower cycloalkyl;

(d) R^4 is hydrogen, CH_3, Et, ^{i}Pr, ^{n}Pr, ^{n}Bu, 2-butyl, ^{t}Bu, benzyl, cyclopropyl, cyclobutyl, cyclopentyl, cyclohexyl, N-methyl-aziridin-2-yl, N-methyl-azetidin-3-yl, N-methyl-pyrrolidin-3-yl, N-methyl-pyrrolidin-4-yl, N-methyl-piperidin-4-yl, lower haloalkyl, or di(lower alkyl)amino-lower alkyl;

(e) R^5 is H;

(f) R^6 is H, CH_3, CH_2F, CHF_2, CF_3, or F;

(g) X is H, OH, OCH_3, F, or N_3;

(h) Y is OH, OCH_3, $OC(O)CH_3$, or O(aminoacyl);

(i) R^7 and R^8 are independently H, F, Br, SCH_3, CH_3, $CH_{3-q}X_q$, where X is F, Cl, Br, or I and q is 1 to 3, vinyl, CO_2CH_3, $CONH_2$, $CONHCH_3$, or $CON(CH_3)_2$; and

(j) R^9 is selected from among OH, OCH_3, NH_2, $NHCH_3$, $N(CH_3)_2$, $OC(O)(C_{1-20}$ alkyl), which include but are not limited to $OC(O)(CH_2)_sCH_3$, $NHC(O)(C_{1-20}$ alkyl), which include but are not limited to $NHC(O)(CH_2)_sCH_3$, and $N(C(O)(CH_2)_sCH_3)_2$, which include but is not limited to $N(C(O)(CH_2)_sCH_3)_2$, where s is an integer selected from among 0, 1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14, 15, 16, 17, 18, and 19.

An eighth aspect of the first embodiment is directed to a compound represented by formula **I-2**

wherein

Gilead Exhibit 2023
PGR2023-00046 - Page 0041

(a) R^1 is hydrogen, methyl, phenyl, p-bromo-phenyl, p-chloro-phenyl, p-fluorophenyl;

(b) R^2 is hydrogen;

(c) R^{3a} is H and R^{3b} is H, CH_3, $CH(CH_3)_2$, $CH_2CH(CH_3)_2$, $CH(CH_3)CH_2CH_3$, CH_2Ph, or lower cycloalkyl;

(d) R^4 is hydrogen, CH_3, Et, ^{i}Pr, ^{n}Pr, ^{n}Bu, 2-butyl, ^{t}Bu, benzyl, cyclopropyl, cyclobutyl, cyclopentyl, cyclohexyl, N-methyl-aziridin-2-yl, N-methyl-azetidin-3-yl, N-methyl-pyrrolidin-3-yl, N-methyl-pyrrolidin-4-yl, N-methyl-piperidin-4-yl, lower haloalkyl, or di(lower alkyl)amino-lower alkyl;

(e) R^5 is H;

(f) R^6 is H, CH_3, CH_2F, CHF_2, CF_3, or F;

(g) X is H, OH, OCH_3, F, or N_3;

(h) Y is OH, OCH_3, $OC(O)CH_3$, or O(aminoacyl);

(i) R^7 and R^8 are independently H, F, Br, SCH_3, CH_3, $CH_{3-q}X_q$, where X is F, Cl, Br, or I and q is 1 to 3, vinyl, CO_2CH_3, $CONH_2$, $CONHCH_3$, or $CON(CH_3)_2$;

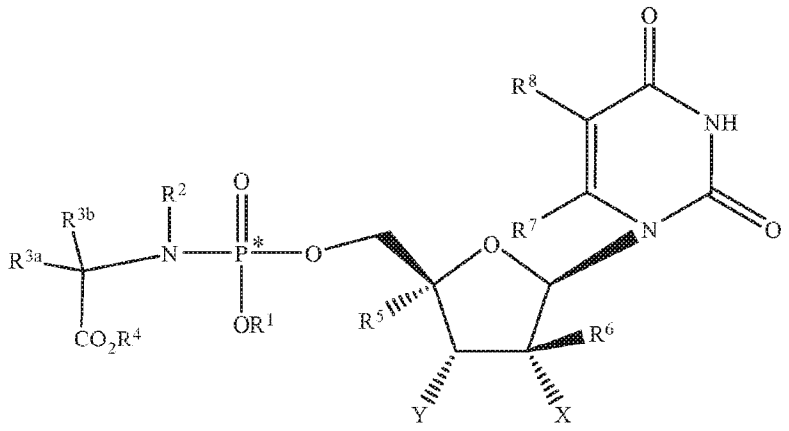
(j) R^9 is selected from among OH, OCH_3, NH_2, $NHCH_3$, $N(CH_3)_2$, $OC(O)(C_{1-20}$ alkyl), which include but are not limited to $OC(O)(CH_2)_sCH_3$, $NHC(O)(C_{1-20}$ alkyl), which include but are not limited to $NHC(O)(CH_2)_sCH_3$, and $N(C(O)(CH_2)_sCH_3)_2$, which include but is not limited to $N(C(O)(CH_2)_sCH_3)_2$, where s is an integer selected from among 0, 1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14, 15, 16, 17, 18, and 19.

A second embodiment of the invention is directed to a compound represented by formula **I** in which the base is a structure represented by formula **b** above, wherein R^1, R^2, R^{3a}, R^{3b}, R^4, R^5, R^6, X, Y, R^7, and $R^8$are defined in the Summary of the Invention section above.

A first aspect of the second embodiment is directed to a compound represented by

Gilead Exhibit 2023
PGR2023-00046 - Page 0042

formula **I-3**



I-3

wherein

(a) R^1 is hydrogen, n-alkyl; branched alkyl; cycloalkyl; or aryl, which includes, but is not limited to, phenyl or naphthyl, where phenyl or naphthyl are optionally substituted with at least one of C_{1-6} alkyl, C_{2-6} alkenyl, C_{2-6} alkynyl, C_{1-6} alkoxy, F, Cl, Br, I, nitro, cyano, C_{1-6} haloalkyl, $-N(R^{1'})_2$, C_{1-6} acylamino, $-NHSO_2C_{1-6}$ alkyl, $-SO_2N(R^{1'})_2$, $COR^{1''}$, and $-SO_2C_{1-6}$ alkyl; ($R^{1'}$ is independently hydrogen or alkyl, which includes, but is not limited to, C_{1-20} alkyl, C_{1-10} alkyl, or C_{1-6} alkyl, $R^{1''}$ is –OR' or $-N(R^{1'})_2$);

(b) R^2 is hydrogen or CH_3;

(c) R^{3a} and R^{3b} are (i) independently selected from hydrogen, C_{1-10} alkyl, cycloalkyl, $-(CH_2)_e(NR^{3'})_2$, C_{1-6} hydroxyalkyl, $-CH_2SH$, $-(CH_2)_2S(O)_dMe$, $-(CH_2)_3NHC(=NH)NH_2$, (1H-indol-3-yl)methyl, (1H-imidazol-4-yl)methyl, $-(CH_2)_eCOR^{3''}$, aryl and aryl C_{1-3} alkyl, said aryl groups optionally substituted with a group selected from hydroxyl, C_{1-10} alkyl, C_{1-6} alkoxy, halogen, nitro and cyano; (ii) R^{3a} and R^{3b} both are C_{1-6} alkyl; (iii) R^{3a} and R^{3b} together are$(CH_2)_f$ so as to form a spiro ring; (iv) R^{3a} is hydrogen and R^{3b} and R^2 together are $(CH_2)_n$ so as to form a cyclic ring that includes the adjoining N and C atoms (v) R^{3b} is hydrogen and R^{3a} and R^2 together are

Gilead Exhibit 2023
PGR2023-00046 - Page 0043

$(CH_2)_n$ so as to form a cyclic ring that includes the adjoining N and C atoms, where c is 1 to 6, d is 0 to 2, e is 0 to 3, f is 2 to 5, n is 2 to 4, and where $R^{3'}$ is independently hydrogen or C_{1-6} alkyl and $R^{3''}$ is -OR' or $-N(R^{3'})_2$); (vi) R^{3a} is H and R^{3b} is H, CH_3, CH_2CH_3, $CH(CH_3)_2$, $CH_2CH(CH_3)_2$, $CH(CH_3)CH_2CH_3$, CH_2Ph, CH_2-indol-3-yl, $-CH_2CH_2SCH_3$, CH_2CO_2H, $CH_2C(O)NH_2$, CH_2CH_2COOH, $CH_2CH_2C(O)NH_2$, $CH_2CH_2CH_2CH_2NH_2$, $-CH_2CH_2CH_2NHC(NH)NH_2$, CH_2-imidazol-4-yl, CH_2OH, $CH(OH)CH_3$, CH_2((4'-OH)-Ph), CH_2SH, or lower cycloalkyl; or (viii) R^{3a} is CH_3, $-CH_2CH_3$, $CH(CH_3)_2$, $CH_2CH(CH_3)_2$, $CH(CH_3)CH_2CH_3$, CH_2Ph, CH_2-indol-3-yl, $-CH_2CH_2SCH_3$, CH_2CO_2H, $CH_2C(O)NH_2$, CH_2CH_2COOH, $CH_2CH_2C(O)NH_2$, $CH_2CH_2CH_2CH_2NH_2$, $-CH_2CH_2CH_2NHC(NH)NH_2$, CH_2-imidazol-4-yl, CH_2OH, $CH(OH)CH_3$, CH_2((4'-OH)-Ph), CH_2SH, or lower cycloalkyl and R^{3b} is H, where $R^{3'}$ is independently hydrogen or alkyl, which includes, but is not limited to, C_{1-20} alkyl, C_{1-10} alkyl, or C_{1-6} alkyl, $R^{3''}$ is –OR' or $-N(R^{3'})_2$);

(d) R^4 is hydrogen, C_{1-10} alkyl, C_{1-10} alkyl optionally substituted with a lower alkyl, alkoxy or halogen, C_{1-10} haloalkyl, C_{3-10} cycloalkyl, cycloalkyl alkyl, cycloheteroalkyl, aminoacyl, di(lower alkyl)amino-lower alkyl, aryl, such as phenyl, heteroaryl, such as, pyridinyl, substituted aryl, or substituted heteroaryl;

(e) R^5 is H, a lower alkyl, CN, vinyl, O-(lower alkyl), hydroxyl lower alkyl, i.e., $-(CH_2)_pOH$, where p is 1 -6, including hydroxyl methyl (CH_2OH), CH_2F, N_3, CH_2CN, CH_2NH_2, CH_2NHCH_3, $CH_2N(CH_3)_2$, alkyne (optionally substituted), or halogen, including F, Cl, Br, or I, with the provisos that when X is OH, base is cytosine and R^6 is H, R^5 cannot be N_3 and when X is OH, R^6 is CH_3 or CH_2F and B is a purine base, R^5 cannot be H;

(f) R^6 is H, CH_3, CH_2F, CHF_2, CF_3, F, or CN;

(g) X is H, OH, F, OMe, Cl, Br, I, NH_2, or N_3;

(h) Y is OH, H, C_{1-4} alkyl, C_{2-4} alkenyl, C_{2-4} alkynyl, vinyl, N_3, CN, Cl, Br, F, I, NO_2, $OC(O)O(C_{1-4}$ alkyl), $OC(O)O(C_{1-4}$ alkyl), $OC(O)O(C_{2-4}$ alkynyl), $OC(O)O(C_{2-4}$ alkenyl), OC_{1-10} haloalkyl, O(aminoacyl), $O(C_{1-10}$ acyl), $O(C_{1-4}$ alkyl), $O(C_{2-4}$ alkenyl),

Gilead Exhibit 2023
PGR2023-00046 - Page 0044

$S(C_{1-4}$ acyl), $S(C_{1-4}$ alkyl), $S(C_{2-4}$ alkynyl), $S(C_{2-4}$ alkenyl), $SO(C_{1-4}$ acyl), $SO(C_{1-4}$ alkyl), $SO(C_{2-4}$ alkynyl), $SO(C_{2-4}$ alkenyl), $SO_2(C_{1-4}$ acyl), $SO_2(C_{1-4}$ alkyl), $SO_2(C_{2-4}$ alkynyl), $SO_2(C_{2-4}$ alkenyl), $OS(O)_2(C_{1-4}$ acyl), $OS(O)_2(C_{1-4}$ alkyl), $OS(O)_2(C_{2-4}$ alkenyl), NH_2, $NH(C_{1-4}$ alkyl), $NH(C_{2-4}$ alkenyl), $NH(C_{2-4}$ alkynyl), $NH(C_{1-4}$ acyl), $N(C_{1-4}$ alkyl)$_2$, or $N(C_{1-18}$ acyl)$_2$, wherein alkyl, alkynyl, alkenyl and vinyl are optionally substituted by N_3, CN, one to three halogen (Cl, Br, F, I), NO_2, $C(O)O(C_{1-4}$ alkyl), $C(O)O(C_{1-4}$ alkyl), $C(O)O(C_{2-4}$ alkynyl), $C(O)O(C_{2-4}$ alkenyl), $O(C_{1-4}$ acyl), $O(C_{1-4}$ alkyl), $O(C_{2-4}$ alkenyl), $S(C_{1-4}$ acyl), $S(C_{1-4}$ alkyl), $S(C_{2-4}$ alkynyl), $S(C_{2-4}$ alkenyl), $SO(C_{1-4}$ acyl), $SO(C_{1-4}$ alkyl), $SO(C_{2-4}$ alkynyl), $SO(C_{2-4}$ alkenyl), $SO_2(C_{1-4}$ acyl), $SO_2(C_{1-4}$ alkyl), $SO_2(C_{2-4}$ alkynyl), $SO_2(C_{2-4}$ alkenyl), $OS(O)_2(C_{1-4}$ acyl), $OS(O)_2(C_{1-4}$ alkyl), $OS(O)_2(C_{2-4}$ alkenyl), NH_2, $NH(C_{1-4}$ alkyl), $NH(C_{2-4}$ alkenyl), $NH(C_{2-4}$ alkynyl), $NH(C_{1-4}$ acyl), $N(C_{1-4}$ alkyl)$_2$, or $N(C_{1-4}$ acyl)$_2$;

(i) R^7 and R^8 are independently H, F, Cl, Br, I, OH, OR', SH, SR', NH_2, NHR', NR'$_2$, lower alkyl, halogenated (F, Cl, Br, I) lower alkyl, lower alkenyl of C_2-C_6, CO_2H, CO_2R', $CONH_2$, CONHR', CONR'$_2$, wherein R' is a C_{1-20} alkyl; a C_{1-20} cycloalkyl; a C_2-C_6 alkenyl, a C_2-C_6 alkynyl.

The second aspect of the second embodiment is directed to a compound represented by formula **I-3**

wherein

(a) R^1 is hydrogen, n-alkyl or aryl, which includes, but is not limited to, phenyl or naphthyl, where phenyl or naphthyl are optionally substituted with at least one of C_{1-6} alkyl, C_{1-6} alkoxy, F, Cl, Br, I, nitro, cyano, C_{1-6} haloalkyl;

(b) R^2 is hydrogen or CH_3;

(c) R^{3a} and R^{3b} are independently (i) R^{3a} is hydrogen and R^{3b} and R^2 together are $(CH_2)_n$ so as to form a cyclic ring that includes the adjoining N and C atoms (v) R^{3b} is hydrogen and R^{3a} and R^2 together are $(CH_2)_n$ so as to form a cyclic ring that includes the adjoining N and C atoms, where c is 1 to 6, d is 0 to 2, e is 0 to 3, f is 3 to 5, n is 2 to 4, and where $R^{3'}$ is independently hydrogen or C_{1-6} alkyl and $R^{3''}$ is -OR' or $-N(R^{3'})_2$); (vi)

Gilead Exhibit 2023
PGR2023-00046 - Page 0045

R^{3a} is H and R^{3b} is H, CH_3, $CH(CH_3)_2$, $CH_2CH(CH_3)_2$, $CH(CH_3)CH_2CH_3$, CH_2Ph, CH_2-indol-3-yl, $-CH_2CH_2SCH_3$, CH_2CO_2H, $CH_2C(O)NH_2$, CH_2CH_2COOH, $CH_2CH_2C(O)NH_2$, $CH_2CH_2CH_2CH_2NH_2$, $-CH_2CH_2CH_2NHC(NH)NH_2$, CH_2-imidazol-4-yl, CH_2OH, $CH(OH)CH_3$, $CH_2((4'\text{-}OH)\text{-}Ph)$, CH_2SH, or lower cycloalkyl; or (viii) R^{3a} is CH_3, $CH(CH_3)_2$, $CH_2CH(CH_3)_2$, $CH(CH_3)CH_2CH_3$, CH_2Ph, CH_2-indol-3-yl, $-CH_2CH_2SCH_3$, CH_2CO_2H, $CH_2C(O)NH_2$, CH_2CH_2COOH, $CH_2CH_2C(O)NH_2$, $CH_2CH_2CH_2CH_2NH_2$, $-CH_2CH_2CH_2NHC(NH)NH_2$, CH_2-imidazol-4-yl, CH_2OH, $CH(OH)CH_3$, $CH_2((4'\text{-}OH)\text{-}Ph)$, or CH_2SH and R^{3b} is H;

(d) R^4 is hydrogen, $C_{1\text{-}10}$ alkyl, $C_{1\text{-}10}$ alkyl optionally substituted with a lower alkyl, alkoxy or halogen, $C_{1\text{-}10}$ haloalkyl, $C_{3\text{-}10}$ cycloalkyl, cycloalkyl alkyl, cycloheteroalkyl, aminoacyl, di(lower alkyl)amino-lower alkyl, aryl, such as phenyl, heteroaryl, such as, pyridinyl, substituted aryl, or substituted heteroaryl;

(e) R^5 is H, CN, CH_3, vinyl, OCH_3, OCH_2CH_3, CH_2OH, CH_2(halo), such as CH_2F, N_3, CH_2CN, CH_2N_3, CH_2NH_2, CH_2NHCH_3, $CH_2N(CH_3)_2$, halogen, including F, Cl, Br, or I;

(f) R^6 is H, CH_3, CH_2F, CHF_2, CF_3, F, or CN;

(g) X is H, OH, F, OMe, halogen, NH_2, or N_3;

(h) Y is OH, H, $C_{1\text{-}4}$ alkyl, vinyl, N_3, CN, Cl, Br, F, I, $O(C_{1\text{-}6}$ acyl), $O(C_{1\text{-}4}$ alkyl), NH_2, $NH(C_{1\text{-}4}$ alkyl), $NH(C_{2\text{-}4}$ alkenyl), $NH(C_{2\text{-}4}$ alkynyl), $NH(C_{1\text{-}4}$ acyl), $N(C_{1\text{-}4}$ alkyl)$_2$, $N(C_{1\text{-}18}$ acyl)$_2$, wherein alkyl, alkynyl, alkenyl and vinyl are optionally substituted by N_3, CN, one to three halogen (Cl, Br, F, I), NO_2, $OC(O)O(C_{1\text{-}4}$ alkyl), $OC(O)O(C_{1\text{-}4}$ alkyl), $OC(O)O(C_{2\text{-}4}$ alkynyl), $OC(O)O(C_{2\text{-}4}$ alkenyl), $OC_{1\text{-}10}$ haloalkyl, O(aminoacyl), $O(C_{1\text{-}4}$ acyl), $O(C_{1\text{-}4}$ alkyl), $O(C_{2\text{-}4}$ alkenyl), $S(C_{1\text{-}4}$ acyl), $S(C_{1\text{-}4}$ alkyl), $S(C_{2\text{-}4}$ alkynyl), $S(C_{2\text{-}4}$ alkenyl), $SO(C_{1\text{-}4}$ acyl), $SO(C_{1\text{-}4}$ alkyl), $SO(C_{2\text{-}4}$ alkynyl), $SO(C_{2\text{-}4}$ alkenyl), $SO_2(C_{1\text{-}4}$ acyl), $SO_2(C_{1\text{-}4}$ alkyl), $SO_2(C_{2\text{-}4}$ alkynyl), $SO_2(C_{2\text{-}4}$ alkenyl), $OS(O)_2(C_{1\text{-}4}$ acyl), $OS(O)_2(C_{1\text{-}4}$ alkyl), $OS(O)_2(C_{2\text{-}4}$ alkenyl), NH_2, $NH(C_{1\text{-}4}$ alkyl), $NH(C_{2\text{-}4}$ alkenyl), $NH(C_{2\text{-}4}$ alkynyl), $NH(C_{1\text{-}4}$ acyl), $N(C_{1\text{-}4}$ alkyl)$_2$, $N(C_{1\text{-}4}$ acyl)$_2$;

Gilead Exhibit 2023
PGR2023-00046 - Page 0046

(i) R^7 and R^8 are independently H, F, Cl, Br, I, OH, OR', SH, SR', NH_2, NHR', NR'$_2$, lower alkyl, halogenated (F, Cl, Br, I) lower alkyl, lower alkenyl of C_2-C_6, CO_2H, CO_2R', $CONH_2$, CONHR', CONR'$_2$, wherein R' is a C_{1-20} alkyl, a C_{1-20} cycloalkyl; a C_2-C_6 alkenyl, a C_2-C_6 alkynyl.

The third aspect of the second embodiment is directed to a compound represented by formula **I-3**

wherein

(a) R^1 is hydrogen, n-alkyl or a substituted or unsubstituted phenyl, where the substitutent of the substituted phenyl is at least one of a C_{1-3} alkyl, a C_{1-3} alkoxy, F, Cl, Br, I, nitro, cyano, and a C_{1-3} haloalkyl;

(b) R^2 is hydrogen, CH_3, R^{3a} or R^{3b} and R^2 together are $(CH_2)_3$ so as to form a cyclic ring that includes the adjoining N and C atoms, $C(O)CR^{3a}R^{3b}NHR^1$, where n is 2 to 4 and R^1, R^{3a}, and R^{3b} are as defined herein;

(c) R^{3a} and R^{3b} are independently (i) R^{3a} is hydrogen and R^{3b} and R^2 together are $(CH_2)_n$ so as to form a cyclic ring that includes the adjoining N and C atoms (v) R^{3b} is hydrogen and R^{3a} and R^2 together are $(CH_2)_n$ so as to form a cyclic ring that includes the adjoining N and C atoms, where c is 1 to 6, d is 0 to 2, e is 0 to 3, f is 3 to 5, n is 2 to 4, and where $R^{3'}$ is independently hydrogen or C_{1-6} alkyl and $R^{3''}$ is -OR' or $-N(R^{3'})_2$); (vi) R^{3a} is H and R^{3b} is H, CH_3, $CH(CH_3)_2$, $CH_2CH(CH_3)_2$, $CH(CH_3)CH_2CH_3$, CH_2Ph, CH_2-indol-3-yl, $-CH_2CH_2SCH_3$, CH_2CO_2H, $CH_2C(O)NH_2$, CH_2CH_2COOH, $CH_2CH_2C(O)NH_2$, $CH_2CH_2CH_2CH_2NH_2$, $-CH_2CH_2CH_2NHC(NH)NH_2$, CH_2-imidazol-4-yl, CH_2OH, $CH(OH)CH_3$, CH_2((4'-OH)-Ph), CH_2SH, or lower cycloalkyl; or (viii) R^{3a} is CH_3, $CH(CH_3)_2$, $CH_2CH(CH_3)_2$, $CH(CH_3)CH_2CH_3$, CH_2Ph, CH_2-indol-3-yl, $-CH_2CH_2SCH_3$, CH_2CO_2H, $CH_2C(O)NH_2$, CH_2CH_2COOH, $CH_2CH_2C(O)NH_2$, $CH_2CH_2CH_2CH_2NH_2$, $-CH_2CH_2CH_2NHC(NH)NH_2$, CH_2-imidazol-4-yl, CH_2OH, $CH(OH)CH_3$, CH_2((4'-OH)-Ph), CH_2SH, or lower cycloalkyl and R^{3b} is H;

(d) R^4 is hydrogen, CH_3, Et, ^{i}Pr, ^{n}Pr, ^{n}Bu, 2-butyl, ^{t}Bu, benzyl, cyclopropyl, cyclobutyl, cyclopentyl, cyclohexyl, N-methyl-aziridin-2-yl, N-methyl-azetidin-3-yl, N-

Gilead Exhibit 2023
PGR2023-00046 - Page 0047

methyl-pyrrolidin-3-yl, N-methyl-pyrrolidin-4-yl, N-methyl-piperidin-4-yl, lower haloalkyl, or di(lower alkyl)amino-lower alkyl;

(e) R^5 is H, CN, CH_3, OCH_3, CH_2OH, CH_2(halo), such as CH_2F, N_3, CH_2CN, CH_2N_3, CH_2NH_2, CH_2NHCH_3, $CH_2N(CH_3)_2$, halogen, including F, Cl, Br, or I;

(f) R^6 is H, CH_3, CH_2F, CHF_2, CF_3, F, or CN;

(g) X is H, OH, F, OCH_3, halogen, NH_2, or N_3

(h) Y is OH, H, CH_3, vinyl, N_3, CN, Cl, Br, F, I, $OC(O)CH_3$, OCH_3, NH_2, $NHCH_3$, NH(vinyl), NH(acetyl), $NH(C(O)CH_3)$, $N(CH_3)_2$, $N(C(O)CH_3)_2$;

(i) R^7 and R^8 are independently H, F, Cl, Br, I, OH, OCH_3, SH, SCH_3, NH_2, $NHCH_3$, $N(CH_3)_2$, CH_3, $CH_{3-q}X_q$, where X is F, Cl, Br, or I and q is 1 to 3, vinyl, CO_2H, CO_2CH_3, $CONH_2$, $CONHCH_3$, or $CON(CH_3)_2$.

The fourth aspect of the second embodiment is directed to a compound represented by formula **I-3**

wherein

(a) R^1 is hydrogen, n-alkyl or a substituted or unsubstituted phenyl, where the substitutent of the substituted phenyl is at least one of a CH_3, OCH_3, F, Cl, Br, I, nitro, cyano, and a $CH_{3-q}X_q$, where X is F, Cl, Br, or I, and q is 1-3;

(b) R^2 is hydrogen or CH_3;

(c) R^{3a} is H and R^{3b} is H, CH_3, $CH(CH_3)_2$, $CH_2CH(CH_3)_2$, $CH(CH_3)CH_2CH_3$, CH_2Ph, CH_2-indol-3-yl, $-CH_2CH_2SCH_3$, CH_2CO_2H, $CH_2C(O)NH_2$, CH_2CH_2COOH, $CH_2CH_2C(O)NH_2$, $CH_2CH_2CH_2CH_2NH_2$, $-CH_2CH_2CH_2NHC(NH)NH_2$, CH_2-imidazol-4-yl, CH_2OH, $CH(OH)CH_3$, CH_2((4'-OH)-Ph), CH_2SH, or lower cycloalkyl or R^{3a} is CH_3, $CH(CH_3)_2$, $CH_2CH(CH_3)_2$, $CH(CH_3)CH_2CH_3$, CH_2Ph, CH_2-indol-3-yl, $-CH_2CH_2SCH_3$, CH_2CO_2H, $CH_2C(O)NH_2$, CH_2CH_2COOH, $CH_2CH_2C(O)NH_2$, $CH_2CH_2CH_2CH_2NH_2$, -

Gilead Exhibit 2023
PGR2023-00046 - Page 0048

$CH_2CH_2CH_2NHC(NH)NH_2$, CH_2-imidazol-4-yl, CH_2OH, $CH(OH)CH_3$, CH_2((4'-OH)-Ph), CH_2SH, or lower cycloalkyl and R^{3b} is H;

(d) R^4 is hydrogen, CH_3, Et, ^{i}Pr, ^{n}Pr, ^{n}Bu, 2-butyl, ^{t}Bu, benzyl, cyclopropyl, cyclobutyl, cyclopentyl, cyclohexyl, N-methyl-aziridin-2-yl, N-methyl-azetidin-3-yl, N-methyl-pyrrolidin-3-yl, N-methyl-pyrrolidin-4-yl, N-methyl-piperidin-4-yl, lower haloalkyl, or di(lower alkyl)amino-lower alkyl;

(e) R^5 is H, CN, CH_3, OCH_3, CH_2OH, CH_2(halo), such as CH_2F, N_3, CH_2CN, CH_2N_3, CH_2NH_2, CH_2NHCH_3, $CH_2N(CH_3)_2$, halogen, including F, Cl, Br, or I;

(f) R^6 is H, CH_3, CH_2F, CHF_2, CF_3, F, or CN;

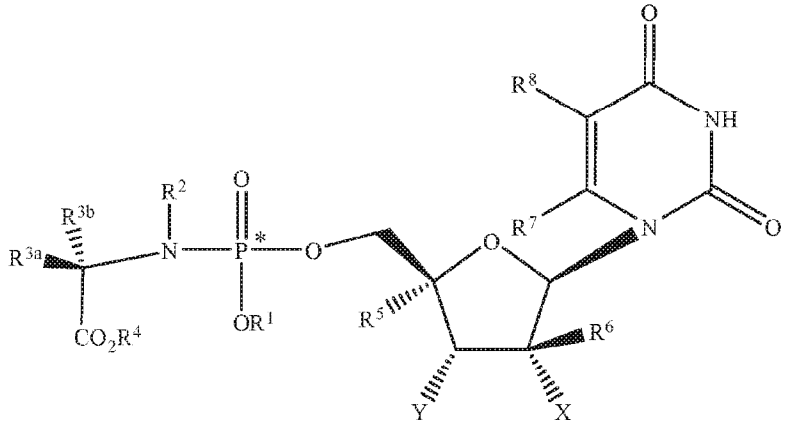
(g) X is H, OH, F, OCH_3, NH_2, or N_3;

(h) Y is OH, H, CH_3, vinyl, N_3, CN, Cl, Br, F, I, $OC(O)CH_3$, OCH_3, NH_2, $NHCH_3$, NH(vinyl), NH(acetyl), $NH(C(O)CH_3)$, $N(CH_3)_2$, $N(C(O)CH_3)_2$;

(i) R^7 and R^8 are independently H, F, Cl, Br, I, OH, OCH_3, SH, SCH_3, NH_2, $NHCH_3$, $N(CH_3)_2$, CH_3, $CH_{3-q}X_q$, where X is F, Cl, Br, or I and q is 1 to 3, vinyl, CO_2H, CO_2CH_3, $CONH_2$, $CONHCH_3$, or $CON(CH_3)_2$, wherein R' is a C_{1-20} alkyl; a C_{1-20} cycloalkyl; a C_2-C_6 alkenyl, a C_2-C_6 alkynyl.

The fifth aspect of the second embodiment is directed to a compound represented by formula **I-4**

Gilead Exhibit 2023
PGR2023-00046 - Page 0049



I-4

wherein

(a) R^1 is hydrogen, methyl, ethyl, *n*-propyl, *i*-propyl, or a substituted or unsubstituted phenyl, where the substitutent of the substituted phenyl is at least one of a CH_3, OCH_3, F, Cl, Br, I, nitro, cyano, and a $CH_{3-q}X_q$, where X is F, Cl, Br, or I, and q is 1-3;

(b) R^2 is hydrogen or CH_3;

(c) R^{3a} is H and R^{3b} is H, CH_3, $CH(CH_3)_2$, $CH_2CH(CH_3)_2$, $CH(CH_3)CH_2CH_3$, CH_2Ph, CH_2-indol-3-yl, $-CH_2CH_2SCH_3$, CH_2CO_2H, $CH_2C(O)NH_2$, CH_2CH_2COOH, $CH_2CH_2C(O)NH_2$, $CH_2CH_2CH_2CH_2NH_2$, $-CH_2CH_2CH_2NHC(NH)NH_2$, CH_2-imidazol-4-yl, CH_2OH, $CH(OH)CH_3$, CH_2((4'-OH)-Ph), CH_2SH, or lower cycloalkyl or R^{3a} is CH_3, $CH(CH_3)_2$, $CH_2CH(CH_3)_2$, $CH(CH_3)CH_2CH_3$, CH_2Ph, CH_2-indol-3-yl, $-CH_2CH_2SCH_3$, CH_2CO_2H, $CH_2C(O)NH_2$, CH_2CH_2COOH, $CH_2CH_2C(O)NH_2$, $CH_2CH_2CH_2CH_2NH_2$, $-CH_2CH_2CH_2NHC(NH)NH_2$, CH_2-imidazol-4-yl, CH_2OH, $CH(OH)CH_3$, CH_2((4'-OH)-Ph), CH_2SH, or lower cycloalkyl and R^{3b} is H;

(d) R^4 is hydrogen, CH_3, Et, ^{i}Pr, ^{n}Pr, ^{n}Bu, 2-butyl, ^{t}Bu, benzyl, cyclopropyl, cyclobutyl, cyclopentyl, cyclohexyl, N-methyl-aziridin-2-yl, N-methyl-azetidin-3-yl, N-methyl-pyrrolidin-3-yl, N-methyl-pyrrolidin-4-yl, N-methyl-piperidin-4-yl, lower haloalkyl, or di(lower alkyl)amino-lower alkyl;

Gilead Exhibit 2023
PGR2023-00046 - Page 0050

(e) R^5 is H, CN, CH_3, OCH_3, CH_2OH, CH_2F, N_3, CH_2CN, CH_2N_3, CH_2NH_2, CH_2NHCH_3, $CH_2N(CH_3)_2$, halogen, including F, Cl, Br, or I;

(f) R^6 is H, CH_3, CH_2F, CHF_2, CF_3, F, or CN;

(g) X is H, OH, F, OCH_3, Cl, Br, I, NH_2, or N_3;

(h) Y is OH, H, CH_3, vinyl, N_3, CN, Cl, Br, F, I, $OC(O)CH_3$, OCH_3, NH_2, $NHCH_3$, NH(vinyl), NH(acetyl), $NH(C(O)CH_3)$, $N(CH_3)_2$, $N(C(O)CH_3)_2$;

(i) R^7 and R^8 are independently H, F, Cl, Br, I, OH, OCH_3, SH, SCH_3, NH_2, $NHCH_3$, $N(CH_3)_2$, CH_3, $CH_{3-q}X_q$, where X is F, Cl, Br, or I and q is 1 to 3, vinyl, CO_2H, CO_2CH_3, $CONH_2$, $CONHCH_3$, or $CON(CH_3)_2$, wherein R' is a C_{1-20} alkyl; a C_{1-20} cycloalkyl; a C_2-C_6 alkenyl, a C_2-C_6 alkynyl,

The sixth aspect of the second embodiment is directed to a compound represented by formula **I-4**

wherein

(a) R^1 is hydrogen, methyl, ethyl, *n*-propyl, *i*-propyl, phenyl, p-tolyl, p-bromo-phenyl, p-chloro-phenyl, p-fluorophenyl;

(b) R^2 is hydrogen or CH_3;

(c) R^{3a} is H and R^{3b} is H, CH_3, $CH(CH_3)_2$, $CH_2CH(CH_3)_2$, $CH(CH_3)CH_2CH_3$, CH_2Ph, CH_2-indol-3-yl, $-CH_2CH_2SCH_3$, CH_2CO_2H, $CH_2C(O)NH_2$, CH_2CH_2COOH, $CH_2CH_2C(O)NH_2$, $CH_2CH_2CH_2CH_2NH_2$, $-CH_2CH_2CH_2NHC(NH)NH_2$, CH_2-imidazol-4-yl, CH_2OH, $CH(OH)CH_3$, CH_2((4'-OH)-Ph), CH_2SH, or lower cycloalkyl;

(d) R^4 is hydrogen, CH_3, Et, ^{i}Pr, ^{n}Pr, ^{n}Bu, 2-butyl, ^{t}Bu, benzyl, cyclopropyl, cyclobutyl, cyclopentyl, cyclohexyl, N-methyl-aziridin-2-yl, N-methyl-azetidin-3-yl, N-methyl-pyrrolidin-3-yl, N-methyl-pyrrolidin-4-yl, N-methyl-piperidin-4-yl, lower haloalkyl, or di(lower alkyl)amino-lower alkyl;

Gilead Exhibit 2023
PGR2023-00046 - Page 0051

(e) R^5 is H, CN, CH_3, OCH_3, CH_2OH, CH_2F, halogen, including F, Cl, Br, or I;

(f) R^6 is H, CH_3, CH_2F, CHF_2, CF_3, F, or CN;

(g) X is H, OH, F, OCH_3, NH_2, or N_3;

(h) Y is OH, H, CH_3, vinyl, NH_2, N_3, CN, Cl, Br, F, I, $OC(O)CH_3$, OCH_3;

(i) R^7 and R^8 are independently H, F, Cl, Br, I, OH, OCH_3, SH, SCH_3, NH_2, $NHCH_3$, $N(CH_3)_2$, CH_3, $CH_{3-q}X_q$, where X is F, Cl, Br, or I and q is 1 to 3, vinyl, CO_2H, CO_2CH_3, $CONH_2$, $CONHCH_3$, or $CON(CH_3)_2$, wherein R' is a C_{1-20} alkyl; a C_{1-20} cycloalkyl; a C_2-C_6 alkenyl, a C_2-C_6 alkynyl.

The seventh aspect of the second embodiment is directed to a compound represented by formula **I-4**

wherein

(a) R^1 is hydrogen, methyl, ethyl, *n*-propyl, *i*-propyl, phenyl, p-tolyl, p-bromo-phenyl, p-chloro-phenyl, p-fluorophenyl;

(b) R^2 is hydrogen or CH_3;

(c) R^{3a} is H and R^{3b} is H, CH_3, $CH(CH_3)_2$, $CH_2CH(CH_3)_2$, $CH(CH_3)CH_2CH_3$, CH_2Ph, or lower cycloalkyl;

(d) R^4 is hydrogen, CH_3, Et, ^{i}Pr, ^{n}Pr, ^{n}Bu, 2-butyl, ^{t}Bu, benzyl, cyclopropyl, cyclobutyl, cyclopentyl, cyclohexyl, N-methyl-aziridin-2-yl, N-methyl-azetidin-3-yl, N-methyl-pyrrolidin-3-yl, N-methyl-pyrrolidin-4-yl, N-methyl-piperidin-4-yl, lower haloalkyl, or di(lower alkyl)amino-lower alkyl;

(e) R^5 is H, OMe, CN, CH_2F, F, Cl, Br, or I;

(f) R^6 is H, CH_3, CH_2F, CHF_2, CF_3, or F;

(g) X is H, OH, F, OCH_3, F, Cl, Br, I, NH_2 or N_3;

Gilead Exhibit 2023
PGR2023-00046 - Page 0052

(h) Y is H, OH, CH_3, F, Cl, Br, I, NH_2 or N_3, OCH3, or $OC(O)CH_3$;

(i) R^7 and R^8 are independently H, F, Br, SCH_3, CH_3, $CH_{3-q}X_q$, where X is F, Cl, Br, or I and q is 1 to 3, vinyl, CO_2CH_3, $CONH_2$, $CONHCH_3$, or $CON(CH_3)_2$;

The eighth aspect of the second embodiment is directed to a compound represented by formula **I-4**

wherein

(a) R^1 is hydrogen, methyl, ethyl, *n*-propyl, *i*-propyl, phenyl, p-tolyl, p-bromo-phenyl, p-chloro-phenyl, p-fluorophenyl;

(b) R^2 is hydrogen,

(c) R^{3a} is H and R^{3b} is H, CH_3, $CH(CH_3)_2$, $CH_2CH(CH_3)_2$, $CH(CH_3)CH_2CH_3$, CH_2Ph, or lower cycloalkyl;

(d) R^4 is hydrogen, CH_3, Et, ^{i}Pr, ^{n}Pr, ^{n}Bu, 2-butyl, ^{t}Bu, benzyl, cyclopropyl, cyclobutyl, cyclopentyl, cyclohexyl, N-methyl-aziridin-2-yl, N-methyl-azetidin-3-yl, N-methyl-pyrrolidin-3-yl, N-methyl-pyrrolidin-4-yl, N-methyl-piperidin-4-yl, lower haloalkyl, or di(lower alkyl)amino-lower alkyl;

(e) R^5 is H;

(f) R^6 is H, CH_3, CH_2F, CHF_2, CF_3, or F;

(g) X is H, OH, OCH_3, F, NH_2 or N_3;

(h) Y is OH, NH_2, OCH_3, or $OC(O)CH_3$;

(i) R^7 and R^8 are independently H, F, Br, SCH_3, CH_3, $CH_{3-q}X_q$, where X is F, Cl, Br, or I and q is 1 to 3, vinyl, CO_2CH_3, $CONH_2$, $CONHCH_3$, or $CON(CH_3)_2$.

The ninth aspect of the second embodiment is directed to a compound represented by formula **I-4**

Gilead Exhibit 2023
PGR2023-00046 - Page 0053

wherein

(a) R^1 is hydrogen, methyl, phenyl, p-bromo-phenyl, p-chloro-phenyl, p-fluorophenyl;

(b) R^2 is hydrogen;

(c) R^{3a} is H and R^{3b} is H, CH_3, $CH(CH_3)_2$, $CH_2CH(CH_3)_2$, $CH(CH_3)CH_2CH_3$, CH_2Ph, or lower cycloalkyl;

(d) R^4 is hydrogen, CH_3, Et, ^{i}Pr, ^{n}Pr, ^{n}Bu, 2-butyl, ^{t}Bu, benzyl, cyclopropyl, cyclobutyl, cyclopentyl, cyclohexyl, N-methyl-aziridin-2-yl, N-methyl-azetidin-3-yl, N-methyl-pyrrolidin-3-yl, N-methyl-pyrrolidin-4-yl, N-methyl-piperidin-4-yl, lower haloalkyl, or di(lower alkyl)amino-lower alkyl;

(e) R^5 is H;

(f) R^6 is H, CH_3, CH_2F, CHF_2, CF_3, or F;

(g) X is H, OH, OCH_3, F, or N_3;

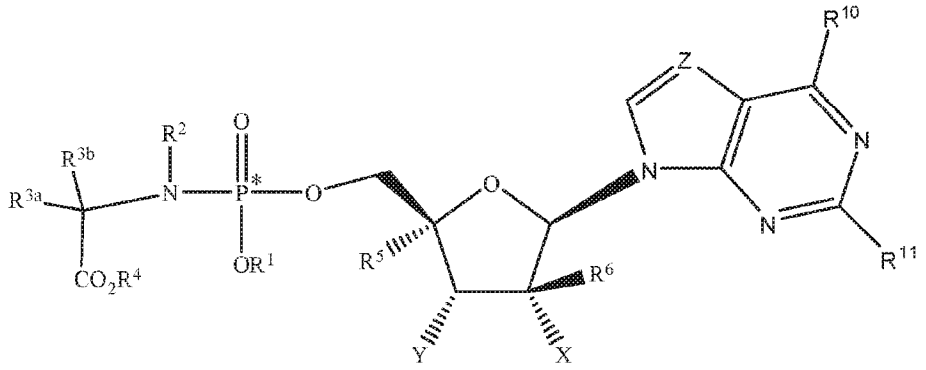
(h) Y is OH, OCH_3, or $OC(O)CH_3$;

(i) R^7 and R^8 are independently H, F, Br, SCH_3, CH_3, $CH_{3-q}X_q$, where X is F, Cl, Br, or I and q is 1 to 3, vinyl, CO_2CH_3, $CONH_2$, $CONHCH_3$, or $CON(CH_3)_2$.

A third embodiment of the invention is directed to a compound represented by formula **I** in which the base is a structure represented by formula **c** above, wherein R^1, R^2, R^{3a}, R^{3b}, R^4, R^5, R^6, X, Y, Z, R^{10}, R^{11}, and R^{12} are defined in the Summary of the Invention section above; with the proviso that R^{11} is not H.

A first aspect of the third embodiment is directed to a compound represented by formula **I-5**

Gilead Exhibit 2023
PGR2023-00046 - Page 0054



I-5

wherein

(a) R^1 is hydrogen, n-alkyl; branched alkyl; cycloalkyl; or aryl, which includes, but is not limited to, phenyl or naphthyl, where phenyl or naphthyl are optionally substituted with at least one of C_{1-6} alkyl, C_{2-6} alkenyl, C_{2-6} alkynyl, C_{1-6} alkoxy, F, Cl, Br, I, nitro, cyano, C_{1-6} haloalkyl, $-N(R^{1'})_2$, C_{1-6} acylamino, $-NHSO_2C_{1-6}$ alkyl, $-SO_2N(R^{1'})_2$, $COR^{1''}$, and $-SO_2C_{1-6}$ alkyl; ($R^{1'}$ is independently hydrogen or alkyl, which includes, but is not limited to, C_{1-20} alkyl, C_{1-10} alkyl, or C_{1-6} alkyl, $R^{1''}$ is –OR' or $-N(R^{1'})_2$);

(b) R^2 is hydrogen or CH_3;

(c) R^{3a} and R^{3b} are (i) independently selected from hydrogen, C_{1-10} alkyl, cycloalkyl, $-(CH_2)_c(NR^{3'})_2$, C_{1-6} hydroxyalkyl, $-CH_2SH$, $-(CH_2)_2S(O)_dMe$, $-(CH_2)_3NHC(=NH)NH_2$, (1H-indol-3-yl)methyl, (1H-imidazol-4-yl)methyl, $-(CH_2)_eCOR^{3''}$, aryl and aryl C_{1-3} alkyl, said aryl groups optionally substituted with a group selected from hydroxyl, C_{1-10} alkyl, C_{1-6} alkoxy, halogen, nitro and cyano; (ii) R^{3a} and R^{3b} both are C_{1-6} alkyl; (iii) R^{3a} and R^{3b} together are$(CH_2)_f$ so as to form a spiro ring; (iv) R^{3a} is hydrogen and R^{3b} and R^2 together are $(CH_2)_n$ so as to form a cyclic ring that includes the adjoining N and C atoms (v) R^{3b} is hydrogen and R^{3a} and R^2 together are $(CH_2)_n$ so as to form a cyclic ring that includes the adjoining N and C atoms, where c is 1 to 6, d is 0 to 2, e is 0 to 3, f is 2 to 5, n is 2 to 4, and where $R^{3'}$ is independently hydrogen

Gilead Exhibit 2023
PGR2023-00046 - Page 0055

or C_{1-6} alkyl and $R^{3''}$ is -OR' or –$N(R^{3'})_2$); (vi) R^{3a} is H and R^{3b} is from H, CH_3, CH_2CH_3, $CH(CH_3)_2$, $CH_2CH(CH_3)_2$, $CH(CH_3)CH_2CH_3$, CH_2Ph, CH_2-indol-3-yl, -$CH_2CH_2SCH_3$, CH_2CO_2H, $CH_2C(O)NH_2$, CH_2CH_2COOH, $CH_2CH_2C(O)NH_2$, $CH_2CH_2CH_2CH_2NH_2$, -$CH_2CH_2CH_2NHC(NH)NH_2$, CH_2-imidazol-4-yl, CH_2OH, $CH(OH)CH_3$, CH_2((4'-OH)-Ph), CH_2SH, or lower cycloalkyl; or (viii) R^{3a} is CH_3, -CH_2CH_3, $CH(CH_3)_2$, $CH_2CH(CH_3)_2$, $CH(CH_3)CH_2CH_3$, CH_2Ph, CH_2-indol-3-yl, -$CH_2CH_2SCH_3$, CH_2CO_2H, $CH_2C(O)NH_2$, CH_2CH_2COOH, $CH_2CH_2C(O)NH_2$, $CH_2CH_2CH_2CH_2NH_2$, -$CH_2CH_2CH_2NHC(NH)NH_2$, CH_2-imidazol-4-yl, CH_2OH, $CH(OH)CH_3$, CH_2((4'-OH)-Ph), CH_2SH, or lower cycloalkyl and R^{3b} is H, where $R^{3'}$ is independently hydrogen or alkyl, which includes, but is not limited to, C_{1-20} alkyl, C_{1-10} alkyl, or C_{1-6} alkyl, $R^{3''}$ is –OR' or -$N(R^{3'})_2$);

(d) R^4 is hydrogen, C_{1-10} alkyl, C_{1-10} alkyl optionally substituted with a lower alkyl, alkoxy or halogen, C_{1-10} haloalkyl, C_{3-10} cycloalkyl, cycloalkyl alkyl, cycloheteroalkyl, aminoacyl, di(lower alkyl)amino-lower alkyl, aryl, such as phenyl, heteroaryl, such as, pyridinyl, substituted aryl, or substituted heteroaryl;

(e) R^5 is H, a lower alkyl, CN, vinyl, O-(lower alkyl), hydroxyl lower alkyl, i.e., -$(CH_2)_pOH$, where p is 1 -6, including hydroxyl methyl (CH_2OH), CH_2F, N_3, CH_2CN, CH_2NH_2, CH_2NHCH_3, $CH_2N(CH_3)_2$, alkyne (optionally substituted), or halogen, including F, Cl, Br, or I, with the provisos that when X is OH, base is cytosine and R^6 is H, R^5 cannot be N_3 and when X is OH, R^6 is CH_3 or CH_2F and B is a purine base, R^5 cannot be H;

(f) R^6 is H, CH_3, CH_2F, CHF_2, CF_3, F, or CN;

(g) X is H, OH, F, OMe, halogen, NH_2, or N_3;

(h) Y is OH, H, C_{1-4} alkyl, C_{2-4} alkenyl, C_{2-4} alkynyl, vinyl, N_3, CN, Cl, Br, F, I, NO_2, OC(O)O(C_{1-4} alkyl), OC(O)O(C_{1-4} alkyl), OC(O)O(C_{2-4} alkynyl), OC(O)O(C_{2-4} alkenyl), OC_{1-10} haloalkyl, O(aminoacyl), O(C_{1-10} acyl), O(C_{1-4} alkyl), O(C_{2-4} alkenyl), S(C_{1-4} acyl), S(C_{1-4} alkyl), S(C_{2-4} alkynyl), S(C_{2-4} alkenyl), SO(C_{1-4} acyl), SO(C_{1-4} alkyl), SO(C_{2-4} alkynyl), SO(C_{2-4} alkenyl), SO_2(C_{1-4} acyl), SO_2(C_{1-4} alkyl), SO_2(C_{2-4} alkynyl),

Gilead Exhibit 2023
PGR2023-00046 - Page 0056

$SO_2(C_{2-4}$ alkenyl), $OS(O)_2(C_{1-4}$ acyl), $OS(O)_2(C_{1-4}$ alkyl), $OS(O)_2(C_{2-4}$ alkenyl), NH_2, $NH(C_{1-4}$ alkyl), $NH(C_{2-4}$ alkenyl), $NH(C_{2-4}$ alkynyl), $NH(C_{1-4}$ acyl), $N(C_{1-4}$ alkyl)$_2$, $N(C_{1-18}$ acyl)$_2$, wherein alkyl, alkynyl, alkenyl and vinyl are optionally substituted by N_3, CN, one to three halogen (Cl, Br, F, I), NO_2, $C(O)O(C_{1-4}$ alkyl), $C(O)O(C_{1-4}$ alkyl), $C(O)O(C_{2-4}$ alkynyl), $C(O)O(C_{2-4}$ alkenyl), $O(C_{1-4}$ acyl), $O(C_{1-4}$ alkyl), $O(C_{2-4}$ alkenyl), $S(C_{1-4}$ acyl), $S(C_{1-4}$ alkyl), $S(C_{2-4}$ alkynyl), $S(C_{2-4}$ alkenyl), $SO(C_{1-4}$ acyl), $SO(C_{1-4}$ alkyl), $SO(C_{2-4}$ alkynyl), $SO(C_{2-4}$ alkenyl), $SO_2(C_{1-4}$ acyl), $SO_2(C_{1-4}$ alkyl), $SO_2(C_{2-4}$ alkynyl), $SO_2(C_{2-4}$ alkenyl), $OS(O)_2(C_{1-4}$ acyl), $OS(O)_2(C_{1-4}$ alkyl), $OS(O)_2(C_{2-4}$ alkenyl), NH_2, $NH(C_{1-4}$ alkyl), $NH(C_{2-4}$ alkenyl), $NH(C_{2-4}$ alkynyl), $NH(C_{1-4}$ acyl), $N(C_{1-4}$ alkyl)$_2$, $N(C_{1-4}$ acyl)$_2$;

(i) R^{10} and R^{11} are independently H, F, Cl, Br, I, OH, OR', SH, SR', NH_2, NHR', NR'$_2$, lower alkyl of C_1-C_6, halogenated (F, Cl, Br, I) lower alkyl of C_1-C_6, lower alkenyl of C_2-C_6, halogenated (F, Cl, Br, I) lower alkenyl of C_2-C_6, lower alkynyl of C_2-C_6 such as C≡CH, halogenated (F, Cl, Br, I) lower alkynyl of C_2-C_6, lower alkoxy of C_1-C_6, halogenated (F, Cl, Br, I) lower alkoxy of C_1-C_6, CO_2H, CO_2R', $CONH_2$, CONHR', CONR'$_2$, CH=$CHCO_2H$, or CH=$CHCO_2R'$, with the proviso that when R^{10} is OH and R^{11} is not NH_2;

wherein R' is an optionally substituted alkyl , which includes, but is not limited to, an optionally substituted C_{1-20} alkyl, an optionally substituted C_{1-10} alkyl, an optionally substituted lower alkyl; an optionally substituted cycloalkyl; an optionally substituted alkynyl of C_2-C_6, an optionally substituted lower alkenyl of C_2-C_6, or optionally substituted acyl, which includes but is not limited to C(O) alkyl, $C(O)(C_{1-20}$ alkyl), $C(O)(C_{1-10}$ alkyl), or C(O)(lower alkyl) or alternatively, in the instance of NR'$_2$, each R' comprise at least one C atom that are joined to form a heterocycle comprising at least two carbon atoms; and

(j) Z is N or CR^{12}; and

R^{12} is an H, halogen (including F, Cl, Br, I), OH, OR', SH, SR', NH_2, NHR', NR'$_2$, NO_2 lower alkyl of C_1-C_6, halogenated (F, Cl, Br, I) lower alkyl of C_1-C_6, lower alkenyl of C_2-C_6, halogenated (F, Cl, Br, I) lower alkenyl of C_2-C_6 , lower alkynyl of C_2-C_6, halogenated (F, Cl, Br, I) lower alkynyl of C_2-C_6, lower alkoxy of C_1-C_6, halogenated (F,

Gilead Exhibit 2023
PGR2023-00046 - Page 0057

Cl, Br, I) lower alkoxy of C_1-C_6, CO_2H, CO_2R', $CONH_2$, $CONHR'$, $CONR'_2$, $CH=CHCO_2H$, or $CH=CHCO_2R'$.

A second aspect of the third embodiment is directed to a compound represented by formula **I-5**

wherein

(a) R^1 is hydrogen, methyl, ethyl, *n*-propyl, *i*-propyl, phenyl, p-tolyl, p-bromo-phenyl, p-chloro-phenyl, p-fluorophenyl;

(b) R^2 is hydrogen or CH_3;

(c) R^{3a} is H and R^{3b} is H, CH_3, $CH(CH_3)_2$, $CH_2CH(CH_3)_2$, $CH(CH_3)CH_2CH_3$, CH_2Ph, CH_2-indol-3-yl, $-CH_2CH_2SCH_3$, CH_2CO_2H, $CH_2C(O)NH_2$, CH_2CH_2COOH, $CH_2CH_2C(O)NH_2$, $CH_2CH_2CH_2CH_2NH_2$, $-CH_2CH_2CH_2NHC(NH)NH_2$, CH_2-imidazol-4-yl, CH_2OH, $CH(OH)CH_3$, CH_2((4'-OH)-Ph), CH_2SH, or lower cycloalkyl;

(d) R^4 is hydrogen, CH_3, Et, ^{i}Pr, ^{n}Pr, ^{n}Bu, 2-butyl, ^{t}Bu, benzyl, cyclopropyl, cyclobutyl, cyclopentyl, cyclohexyl, N-methyl-aziridin-2-yl, N-methyl-azetidin-3-yl, N-methyl-pyrrolidin-3-yl, N-methyl-pyrrolidin-4-yl, lower haloalkyl, or di(lower alkyl)amino-lower alkyl;

(e) R^5 is H, CN, CH_3, OCH_3, CH_2OH, CH_2F, halogen, including F, Cl, Br, or I, with the provisos that when X is OH, R^6 is CH_3 or CH_2F, R^5 cannot be H.

(f) R^6 is H, CH_3, CH_2F, CHF_2, CF_3, F, or CN;

(g) X is H, OH, F, OCH_3, Cl, Br, I, NH_2, or N_3;

(h) Y is OH, H, CH_3, vinyl, NH_2, N_3, CN, Cl, Br, F, I, $OC(O)CH_3$, OCH_3;

(i) R^{10} and R^{11} are independently H, F, Br, I, OH, OR', NH_2, NHR', NR'_2, CO_2R', $CONH_2$, $CONHR'$, $CONR'_2$, $CH=CHCO_2H$, or $CH=CHCO_2R'$, with the proviso that when R^{10} is OH and R^{11} is not NH_2;

Gilead Exhibit 2023
PGR2023-00046 - Page 0058

wherein R' is a lower alkyl, a lower cycloalkyl, or C(O)(lower alkyl) or alternatively, in the instance of NR'_2, each R' comprise at least one C atom that are joined to form a heterocycle comprising at least two carbon atoms; and

(j) Z is N or CR^{12}; and

R^{12} is an H, halogen (including F, Cl, Br, I), OR', NH_2, NHR', NR'_2, NO_2, lower alkyl of C_1-C_6, CO_2R', $CONH_2$, CONHR', $CONR'_2$, $CH{=}CHCO_2H$, or $CH{=}CHCO_2R'$.

A third aspect of the third embodiment is directed to a compound represented by formula **I-5**

wherein

(a) R^1 is hydrogen, methyl, ethyl, *n*-propyl, *i*-propyl, phenyl, p-tolyl, p-bromo-phenyl, p-chloro-phenyl, p-fluorophenyl;

(b) R^2 is hydrogen or CH_3;

(c) R^{3a} is H and R^{3b} is H, CH_3, $CH(CH_3)_2$, $CH_2CH(CH_3)_2$, $CH(CH_3)CH_2CH_3$, CH_2Ph, or lower cycloalkyl;

(d) R^4 is hydrogen, CH_3, Et, ^{i}Pr, ^{n}Pr, ^{n}Bu, 2-butyl, ^{t}Bu, benzyl, cyclopropyl, cyclobutyl, cyclopentyl, cyclohexyl, N-methyl-aziridin-2-yl, N-methyl-azetidin-3-yl, N-methyl-pyrrolidin-3-yl, N-methyl-pyrrolidin-4-yl, N-methyl-piperidin-4-yl, lower haloalkyl, or di(lower alkyl)amino-lower alkyl;

(e) R^5 is H, CN, CH_2F, F, Cl, Br, or I; with the proviso that X is OH, R^6 is CH_3 or CH_2F, R^5 cannot be H;

(f) R^6 is H, CH_3, CH_2F, CHF_2, CF_3, or F;

(g) X is H, OH, F, OCH_3, F, Cl, Br, I, NH_2 or N_3;

(h) Y is H, OH, CH_3, F, Cl, Br, I, NH_2 or N_3, OCH_3, or $OC(O)CH_3$;

Gilead Exhibit 2023
PGR2023-00046 - Page 0059

(i) R^{10} and R^{11} are independently H, F, Br, I, OH, OR', NH_2, NHR', NR'$_2$, CO_2R', $CONH_2$, CONHR', CONR'$_2$, CH=$CHCO_2H$, or CH=$CHCO_2R'$, with the proviso that when R^{10} is OH and R^{11} is not NH_2;

wherein R' is a lower alkyl, a lower cycloalkyl, or C(O)(lower alkyl) or alternatively, in the instance of NR'$_2$, each R' comprise at least one C atom that are joined to form a heterocycle comprising at least two carbon atoms; and

(j) Z is N or CR^{12}; and

R^{12} is an H, halogen (including F, Cl, Br, I), OR', NH_2, NHR', NR'$_2$, NO_2, lower alkyl of C_1-C_6, CO_2R', $CONH_2$, CONHR', CONR'$_2$, CH=$CHCO_2H$, or CH=$CHCO_2R'$.

A fourth aspect of the third embodiment is directed to a compound represented by formula **I-5**

wherein

(a) R^1 is hydrogen, methyl, ethyl, *n*-propyl, *i*-propyl, phenyl, p-tolyl, p-bromo-phenyl, p-chloro-phenyl, p-fluorophenyl;

(b) R^2 is hydrogen;

(c) R^{3a} is H and R^{3b} is H, CH_3, $CH(CH_3)_2$, $CH_2CH(CH_3)_2$, $CH(CH_3)CH_2CH_3$, CH_2Ph, or lower cycloalkyl;

(d) R^4 is hydrogen, CH_3, Et, ^{i}Pr, ^{n}Pr, ^{n}Bu, 2-butyl, ^{t}Bu, benzyl, cyclopropyl, cyclobutyl, cyclopentyl, cyclohexyl, N-methyl-aziridin-2-yl, N-methyl-azetidin-3-yl, N-methyl-pyrrolidin-3-yl, N-methyl-pyrrolidin-4-yl, N-methyl-piperidin-4-yl, lower haloalkyl, or di(lower alkyl)amino-lower alkyl;

(e) R^5 is H, with the provisos that when X is OH, R^6 is CH_3 or CH_2F, R^5 cannot be H;

(f) R^6 is H, CH_3, CH_2F, CHF_2, CF_3, or F;

Gilead Exhibit 2023
PGR2023-00046 - Page 0060

(g) X is H, OH, OCH_3, F, NH_2 or N_3;

(h) Y is OH, NH_2, OCH_3, or $OC(O)CH_3$;

(i) R^{10} and R^{11} are independently H, F, Br, I, OH, OR', NH_2, NHR', NR'$_2$, CO_2R', $CONH_2$, CONHR', CONR'$_2$, CH=$CHCO_2H$, or CH=$CHCO_2R'$, with the proviso that when R^{10} is OH and R^{11} is not NH_2;

wherein R' is a lower alkyl, a lower cycloalkyl, or C(O)(lower alkyl) or alternatively, in the instance of NR'$_2$, each R' comprise at least one C atom that are joined to form a heterocycle comprising at least two carbon atoms; and

(j) Z is N or CR^{12}; and

R^{12} is an H, halogen (including F, Cl, Br, I), OR', NH_2, NHR', NR'$_2$, NO_2, lower alkyl of C_1-C_6, CO_2R', $CONH_2$, CONHR', CONR'$_2$, CH=$CHCO_2H$, or CH=$CHCO_2R'$.

A fifth aspect of the third embodiment is directed to a compound represented by formula **I-5**

wherein

(a) R^1 is hydrogen, methyl, phenyl, p-bromo-phenyl, p-chloro-phenyl, p-fluorophenyl;

(b) R^2 is hydrogen;

(c) R^{3a} is H and R^{3b} is H, CH_3, $CH(CH_3)_2$, $CH_2CH(CH_3)_2$, $CH(CH_3)CH_2CH_3$, CH_2Ph, or lower cycloalkyl;

(d) R^4 is hydrogen, CH_3, Et, ^{i}Pr, ^{n}Pr, ^{n}Bu, 2-butyl, ^{t}Bu, benzyl, cyclopropyl, cyclobutyl, cyclopentyl, cyclohexyl, N-methyl-aziridin-2-yl, N-methyl-azetidin-3-yl, N-methyl-pyrrolidin-3-yl, N-methyl-pyrrolidin-4-yl, N-methyl-piperidin-4-yl, lower haloalkyl, or di(lower alkyl)amino-lower alkyl;

Gilead Exhibit 2023
PGR2023-00046 - Page 0061

(e) R^5 is H, with the provisos that when X is OH, R^6 is CH_3 or CH_2F, R^5 cannot be H;

(f) R^6 is H, CH_3, CH_2F, CHF_2, CF_3, or F;

(g) X is H, OH, OCH_3, F, NH_2 or N_3;

(h) Y is OH, NH_2, OCH_3, or $OC(O)CH_3$;

(i) R^{10} and R^{11} are independently H, F, Br, I, OH, OR', NH_2, NHR', NR'$_2$, CO_2R', $CONH_2$, CONHR', CONR'$_2$, $CH{=}CHCO_2H$, or $CH{=}CHCO_2R'$, with the proviso that when R^{10} is OH and R^{11} is not NH_2;

wherein R' is a lower alkyl, a lower cycloalkyl, or C(O)(lower alkyl) or alternatively, in the instance of NR'$_2$, each R' comprise at least one C atom that are joined to form a heterocycle comprising at least two carbon atoms; and

(j) Z is N or CR^{12}; and

R^{12} is an H, halogen (including F, Cl, Br, I), OR', NH_2, NHR', NR'$_2$, NO_2, lower alkyl of C_1-C_6, CO_2R', $CONH_2$, CONHR', CONR'$_2$, $CH{=}CHCO_2H$, or $CH{=}CHCO_2R'$.

A sixth aspect of the third embodiment is directed to a compound represented by formula **I-5**

wherein

(a) R^1 is hydrogen, methyl, ethyl, *n*-propyl, *i*-propyl, phenyl, p-tolyl, p-bromo-phenyl, p-chloro-phenyl, p-fluorophenyl;

(b) R^2 is hydrogen or CH_3;

(c) R^{3a} is H and R^{3b} is H, CH_3, $CH(CH_3)_2$, $CH_2CH(CH_3)_2$, $CH(CH_3)CH_2CH_3$, CH_2Ph, CH_2-indol-3-yl, $-CH_2CH_2SCH_3$, CH_2CO_2H, $CH_2C(O)NH_2$, CH_2CH_2COOH, $CH_2CH_2C(O)NH_2$, $CH_2CH_2CH_2CH_2NH_2$, $-CH_2CH_2CH_2NHC(NH)NH_2$, CH_2-imidazol-4-yl, CH_2OH, $CH(OH)CH_3$, CH_2((4'-OH)-Ph), CH_2SH, or lower cycloalkyl;

Gilead Exhibit 2023
PGR2023-00046 - Page 0062

(d) R^4 is hydrogen, CH_3, Et, ^{i}Pr, ^{n}Pr, ^{n}Bu, 2-butyl, ^{t}Bu, benzyl, cyclopropyl, cyclobutyl, cyclopentyl, cyclohexyl, N-methyl-aziridin-2-yl, N-methyl-azetidin-3-yl, N-methyl-pyrrolidin-3-yl, N-methyl-pyrrolidin-4-yl, N-methyl-piperidin-4-yl, lower haloalkyl, or di(lower alkyl)amino-lower alkyl;

(e) R^5 is H, CN, CH_3, OCH_3, CH_2OH, CH_2F, halogen, including F, Cl, Br, or I, with the provisos that when X is OH, R^6 is CH_3 or CH_2F, R^5 cannot be H.

(f) R^6 is H, CH_3, CH_2F, CHF_2, CF_3, F, or CN;

(g) X is H, OH, F, OCH_3, Cl, Br, I, NH_2, or N_3;

(h) Y is OH, H, CH_3, vinyl, NH_2, N_3, CN, Cl, Br, F, I, $OC(O)CH_3$, OCH_3;

(i) R^{10} is NH_2 and R^{11} is H, F, Br, I, OH, OR', NH_2, NHR', NR'$_2$, CO_2R', $CONH_2$, CONHR', CONR'$_2$, $CH{=}CHCO_2H$, or $CH{=}CHCO_2R'$;

wherein R' is a lower alkyl, a lower cycloalkyl, or C(O)(lower alkyl) or alternatively, in the instance of NR'$_2$, each R' comprise at least one C atom that are joined to form a heterocycle comprising at least two carbon atoms; and

(j) Z is N or CR^{12}; and

R^{12} is an H, halogen (including F, Cl, Br, I), OR', NH_2, NHR', NR'$_2$, NO_2, lower alkyl of C_1-C_6, CO_2R', $CONH_2$, CONHR', CONR'$_2$, $CH{=}CHCO_2H$, or $CH{=}CHCO_2R'$.

A seventh aspect of the third embodiment is directed to a compound represented by formula **I-5**

wherein

(a) R^1 is hydrogen, methyl, ethyl, *n*-propyl, *i*-propyl, phenyl, p-tolyl, p-bromo-phenyl, p-chloro-phenyl, p-fluorophenyl;

(b) R^2 is hydrogen or CH_3;

Gilead Exhibit 2023
PGR2023-00046 - Page 0063

(c) R^{3a} is H and R^{3b} is H, CH_3, $CH(CH_3)_2$, $CH_2CH(CH_3)_2$, $CH(CH_3)CH_2CH_3$, CH_2Ph, or lower cycloalkyl;

(d) R^4 is hydrogen, CH_3, Et, ^{i}Pr, ^{n}Pr, ^{n}Bu, 2-butyl, ^{t}Bu, benzyl, cyclopropyl, cyclobutyl, cyclopentyl, cyclohexyl, N-methyl-aziridin-2-yl, N-methyl-azetidin-3-yl, N-methyl-pyrrolidin-3-yl, N-methyl-pyrrolidin-4-yl, N-methyl-piperidin-4-yl, lower haloalkyl, or di(lower alkyl)amino-lower alkyl;

(e) R^5 is H, CN, CH_2F, F, Cl, Br, or I; with the proviso that X is OH, R^6 is CH_3 or CH_2F, R^5 cannot be H;

(f) R^6 is H, CH_3, CH_2F, CHF_2, CF_3, or F;

(g) X is H, OH, F, OCH_3, F, Cl, Br, I, NH_2 or N_3;

(h) Y is H, OH, CH_3, F, Cl, Br, I, NH_2 or N_3, OCH_3, or $OC(O)CH_3$;

(i) R^{10} is NH_2 and R^{11} is H, F, Br, I, OH, OR', NH_2, NHR', NR'$_2$, CO_2R', $CONH_2$, CONHR', CONR'$_2$, CH=$CHCO_2$H, or CH=$CHCO_2$R';

wherein R' is a lower alkyl, a lower cycloalkyl, or C(O)(lower alkyl) or alternatively, in the instance of NR'$_2$, each R' comprise at least one C atom that are joined to form a heterocycle comprising at least two carbon atoms; and

(j) Z is N or CR^{12}; and

R^{12} is an H, halogen (including F, Cl, Br, I), OR', NH_2, NHR', NR'$_2$, NO_2, lower alkyl of C_1-C_6, CO_2R', $CONH_2$, CONHR', CONR'$_2$, CH=$CHCO_2$H, or CH=$CHCO_2$R'.

An eighth aspect of the third embodiment is directed to a compound represented by formula **I-5**

wherein

(a) R^1 is hydrogen, methyl, ethyl, *n*-propyl, *i*-propyl, phenyl, p-tolyl, p-bromo-phenyl, p-chloro-phenyl, p-fluorophenyl;

Gilead Exhibit 2023
PGR2023-00046 - Page 0064

(b) R^2 is hydrogen;

(c) R^{3a} is H and R^{3b} is H, CH_3, $CH(CH_3)_2$, $CH_2CH(CH_3)_2$, $CH(CH_3)CH_2CH_3$, CH_2Ph, or lower cycloalkyl;

(d) R^4 is hydrogen, CH_3, Et, ^{i}Pr, ^{n}Pr, ^{n}Bu, 2-butyl, ^{t}Bu, benzyl, cyclopropyl, cyclobutyl, cyclopentyl, cyclohexyl, N-methyl-aziridin-2-yl, N-methyl-azetidin-3-yl, N-methyl-pyrrolidin-3-yl, N-methyl-pyrrolidin-4-yl, N-methyl-piperidin-4-yl, lower haloalkyl;

(e) R^5 is H, with the provisos that when X is OH, R^6 is CH_3 or CH_2F, R^5 cannot be H;

(f) R^6 is H, CH_3, CH_2F, CHF_2, CF_3, or F;

(g) X is H, OH, OCH_3, F, NH_2 or N_3;

(h) Y is OH, NH_2, OCH_3, or $OC(O)CH_3$;

(i) R^{10} is NH_2 and R^{11} is H, F, Br, I, OH, OR', NH_2, NHR', NR'$_2$, CO_2R', $CONH_2$, CONHR', CONR'$_2$, CH=CHCO_2H, or CH=CHCO_2R';

wherein R' is a lower alkyl, a lower cycloalkyl, or C(O)(lower alkyl) or alternatively, in the instance of NR'$_2$, each R' comprise at least one C atom that are joined to form a heterocycle comprising at least two carbon atoms; and

(j) Z is N or CR^{12}; and

R^{12} is an H, halogen (including F, Cl, Br, I), OR', NH_2, NHR', NR'$_2$, NO_2, lower alkyl of C_1-C_6, CO_2R', $CONH_2$, CONHR', CONR'$_2$, CH=CHCO_2H, or CH=CHCO_2R'.

A ninth aspect of the third embodiment is directed to a compound represented by formula **I-5**

wherein

Gilead Exhibit 2023
PGR2023-00046 - Page 0065

(a) R^1 is hydrogen, methyl, phenyl, p-bromo-phenyl, p-chloro-phenyl, p-fluorophenyl;

(b) R^2 is hydrogen;

(c) R^{3a} is H and R^{3b} is H, CH_3, $CH(CH_3)_2$, $CH_2CH(CH_3)_2$, $CH(CH_3)CH_2CH_3$, CH_2Ph, or lower cycloalkyl;

(d) R^4 is hydrogen, CH_3, Et, ^{i}Pr, ^{n}Pr, ^{n}Bu, 2-butyl, ^{t}Bu, benzyl, cyclopropyl, cyclobutyl, cyclopentyl, cyclohexyl, N-methyl-aziridin-2-yl, N-methyl-azetidin-3-yl, N-methyl-pyrrolidin-3-yl, or N-methyl-pyrrolidin-4-yl, lower haloalkyl, or di(lower alkyl)amino-lower alkyl;

(e) R^5 is H, with the provisos that when X is OH, R^6 is CH_3 or CH_2F, R^5 cannot be H;

(f) R^6 is H, CH_3, CH_2F, CHF_2, CF_3, or F;

(g) X is H, OH, OCH_3, F, NH_2 or N_3;

(h) Y is OH, NH_2, OCH_3, or $OC(O)CH_3$;

(i) R^{10} is NH_2 and R^{11} is H, F, Br, I, OH, OR', NH_2, NHR', NR'$_2$, CO_2R', $CONH_2$, CONHR', CONR'$_2$, CH=CHCO_2H, or CH=CHCO_2R';

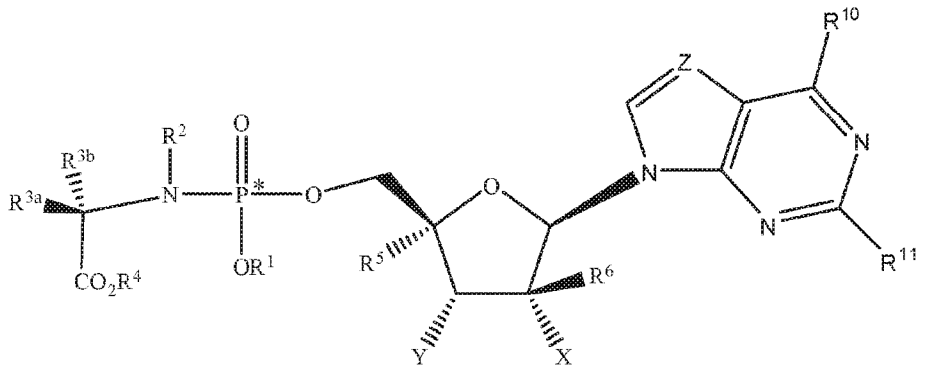
wherein R' is a lower alkyl, a lower cycloalkyl, or C(O)(lower alkyl) or alternatively, in the instance of NR'$_2$, each R' comprise at least one C atom that are joined to form a heterocycle comprising at least two carbon atoms; and

(j) Z is N or CR^{12}; and

R^{12} is an H, halogen (including F, Cl, Br, I), OR', NH_2, NHR', NR'$_2$, NO_2, lower alkyl of C_1-C_6, CO_2R', $CONH_2$, CONHR', CONR'$_2$, CH=CHCO_2H, or CH=CHCO_2R'.

A tenth aspect of the third embodiment is directed to a compound represented by formula **I-6**

Gilead Exhibit 2023
PGR2023-00046 - Page 0066



I-6

wherein

(a) R^1 is hydrogen, n-alkyl; branched alkyl; cycloalkyl; or aryl, which includes, but is not limited to, phenyl or naphthyl, where phenyl or naphthyl are optionally substituted with at least one of C_{1-6} alkyl, C_{2-6} alkenyl, C_{2-6} alkynyl, C_{1-6} alkoxy, F, Cl, Br, I, nitro, cyano, C_{1-6} haloalkyl, $-N(R^{1'})_2$, C_{1-6} acylamino, $-NHSO_2C_{1-6}$ alkyl, $-SO_2N(R^{1'})_2$, $COR^{1''}$, and $-SO_2C_{1-6}$ alkyl; ($R^{1'}$ is independently hydrogen or alkyl, which includes, but is not limited to, C_{1-20} alkyl, C_{1-10} alkyl, or C_{1-6} alkyl, $R^{1''}$ is –OR' or $-N(R^{1'})_2$);

(b) R^2 is hydrogen or CH_3;

(c) R^{3a} and R^{3b} are (i) independently selected from hydrogen, C_{1-10} alkyl, cycloalkyl, $-(CH_2)_c(NR^{3'})_2$, C_{1-6} hydroxyalkyl, $-CH_2SH$, $-(CH_2)_2S(O)_dMe$, $-(CH_2)_3NHC(=NH)NH_2$, (1H-indol-3-yl)methyl, (1H-imidazol-4-yl)methyl, $-(CH_2)_eCOR^{3''}$, aryl and aryl C_{1-3} alkyl, said aryl groups optionally substituted with a group selected from hydroxyl, C_{1-10} alkyl, C_{1-6} alkoxy, halogen, nitro and cyano; (ii) R^{3a} and R^{3b} both are C_{1-6} alkyl; (iii) R^{3a} and R^{3b} together are$(CH_2)_f$ so as to form a spiro ring; (iv) R^{3a} is hydrogen and R^{3b} and R^2 together are $(CH_2)_n$ so as to form a cyclic ring that includes the adjoining N and C atoms (v) R^{3b} is hydrogen and R^{3a} and R^2 together are $(CH_2)_n$ so as to form a cyclic ring that includes the adjoining N and C atoms, where c is 1 to 6, d is 0 to 2, e is 0 to 3, f is 2 to 5, n is 2 to 4, and where $R^{3'}$ is independently hydrogen

Gilead Exhibit 2023
PGR2023-00046 - Page 0067

or C_{1-6} alkyl and $R^{3''}$ is -OR' or –$N(R^{3'})_2$); (vi) R^{3a} is H and R^{3b} is H, CH_3, CH_2CH_3, $CH(CH_3)_2$, $CH_2CH(CH_3)_2$, $CH(CH_3)CH_2CH_3$, CH_2Ph, CH_2-indol-3-yl, -$CH_2CH_2SCH_3$, CH_2CO_2H, $CH_2C(O)NH_2$, CH_2CH_2COOH, $CH_2CH_2C(O)NH_2$, $CH_2CH_2CH_2CH_2NH_2$, -$CH_2CH_2CH_2NHC(NH)NH_2$, CH_2-imidazol-4-yl, CH_2OH, $CH(OH)CH_3$, CH_2((4'-OH)-Ph), CH_2SH, or lower cycloalkyl; or (viii) R^{3a} is CH_3, -CH_2CH_3, $CH(CH_3)_2$, $CH_2CH(CH_3)_2$, $CH(CH_3)CH_2CH_3$, CH_2Ph, CH_2-indol-3-yl, -$CH_2CH_2SCH_3$, CH_2CO_2H, $CH_2C(O)NH_2$, CH_2CH_2COOH, $CH_2CH_2C(O)NH_2$, $CH_2CH_2CH_2CH_2NH_2$, -$CH_2CH_2CH_2NHC(NH)NH_2$, CH_2-imidazol-4-yl, CH_2OH, $CH(OH)CH_3$, CH_2((4'-OH)-Ph), CH_2SH, or lower cycloalkyl and R^{3b} is H, where $R^{3'}$ is independently hydrogen or alkyl, which includes, but is not limited to, C_{1-20} alkyl, C_{1-10} alkyl, or C_{1-6} alkyl, $R^{3''}$ is –OR' or -$N(R^{3'})_2$);

(d) R^4 is hydrogen, C_{1-10} alkyl, C_{1-10} alkyl optionally substituted with a lower alkyl, alkoxy or halogen, C_{1-10} haloalkyl, C_{3-10} cycloalkyl, cycloalkyl alkyl, cycloheteroalkyl, aminoacyl, di(lower alkyl)amino-lower alkyl, aryl, such as phenyl, heteroaryl, such as, pyridinyl, substituted aryl, or substituted heteroaryl;

(e) R^5 is H, a lower alkyl, CN, vinyl, O-(lower alkyl), hydroxyl lower alkyl, i.e., -$(CH_2)_pOH$, where p is 1 -6, including hydroxyl methyl (CH_2OH), CH_2F, N_3, CH_2CN, CH_2NH_2, CH_2NHCH_3, $CH_2N(CH_3)_2$, alkyne (optionally substituted), or halogen, including F, Cl, Br, or I, with the provisos that when X is OH, base is cytosine and R^6 is H, R^5 cannot be N_3 and when X is OH, R^6 is CH_3 or CH_2F and B is a purine base, R^5 cannot be H;

(f) R^6 is H, CH_3, CH_2F, CHF_2, CF_3, F, or CN;

(g) X is H, OH, F, OMe, Cl, Br, I, NH_2, or N_3;

(h) Y is OH, H, C_{1-4} alkyl, C_{2-4} alkenyl, C_{2-4} alkynyl, vinyl, N_3, CN, Cl, Br, F, I, NO_2, OC(O)O(C_{1-4} alkyl), OC(O)O(C_{1-4} alkyl), OC(O)O(C_{2-4} alkynyl), OC(O)O(C_{2-4} alkenyl), OC_{1-10} haloalkyl, O(aminoacyl), O(C_{1-10} acyl), O(C_{1-4} alkyl), O(C_{2-4} alkenyl), S(C_{1-4} acyl), S(C_{1-4} alkyl), S(C_{2-4} alkynyl), S(C_{2-4} alkenyl), SO(C_{1-4} acyl), SO(C_{1-4} alkyl), SO(C_{2-4} alkynyl), SO(C_{2-4} alkenyl), SO_2(C_{1-4} acyl), SO_2(C_{1-4} alkyl), SO_2(C_{2-4} alkynyl),

Gilead Exhibit 2023
PGR2023-00046 - Page 0068

$SO_2(C_{2-4}$ alkenyl), $OS(O)_2(C_{1-4}$ acyl), $OS(O)_2(C_{1-4}$ alkyl), $OS(O)_2(C_{2-4}$ alkenyl), NH_2, $NH(C_{1-4}$ alkyl), $NH(C_{2-4}$ alkenyl), $NH(C_{2-4}$ alkynyl), $NH(C_{1-4}$ acyl), $N(C_{1-4}$ alkyl)$_2$, $N(C_{1-18}$ acyl)$_2$, wherein alkyl, alkynyl, alkenyl and vinyl are optionally substituted by N_3, CN, one to three halogen (Cl, Br, F, I), NO_2, $C(O)O(C_{1-4}$ alkyl), $C(O)O(C_{1-4}$ alkyl), $C(O)O(C_{2-4}$ alkynyl), $C(O)O(C_{2-4}$ alkenyl), $O(C_{1-4}$ acyl), $O(C_{1-4}$ alkyl), $O(C_{2-4}$ alkenyl), $S(C_{1-4}$ acyl), $S(C_{1-4}$ alkyl), $S(C_{2-4}$ alkynyl), $S(C_{2-4}$ alkenyl), $SO(C_{1-4}$ acyl), $SO(C_{1-4}$ alkyl), $SO(C_{2-4}$ alkynyl), $SO(C_{2-4}$ alkenyl), $SO_2(C_{1-4}$ acyl), $SO_2(C_{1-4}$ alkyl), $SO_2(C_{2-4}$ alkynyl), $SO_2(C_{2-4}$ alkenyl), $OS(O)_2(C_{1-4}$ acyl), $OS(O)_2(C_{1-4}$ alkyl), $OS(O)_2(C_{2-4}$ alkenyl), NH_2, $NH(C_{1-4}$ alkyl), $NH(C_{2-4}$ alkenyl), $NH(C_{2-4}$ alkynyl), $NH(C_{1-4}$ acyl), $N(C_{1-4}$ alkyl)$_2$, $N(C_{1-4}$ acyl)$_2$;

(i) R^{10} and R^{11} are independently H, F, Br, I, OH, OR', NH_2, NHR', NR'$_2$, CO_2R', $CONH_2$, CONHR', CONR'$_2$, CH=CHCO_2H, or CH=CHCO_2R', with the proviso that when R^{10} is OH and R^{11} is not NH_2;

wherein R' is a lower alkyl, a lower cycloalkyl, or C(O)(lower alkyl) or alternatively, in the instance of NR'$_2$, each R' comprise at least one C atom that are joined to form a heterocycle comprising at least two carbon atoms; and

(j) Z is N or CR^{12}; and

R^{12} is an H, halogen (including F, Cl, Br, I), OR', NH_2, NHR', NR'$_2$, NO_2, lower alkyl of C_1-C_6, CO_2R', $CONH_2$, CONHR', CONR'$_2$, CH=CHCO_2H, or CH=CHCO_2R'.

An eleventh aspect of the third embodiment is directed to a compound represented by formula **I-6**

wherein

(a) R^1 is hydrogen, methyl, ethyl, *n*-propyl, *i*-propyl, phenyl, p-tolyl, p-bromo-phenyl, p-chloro-phenyl, p-fluorophenyl;

(b) R^2 is hydrogen or CH_3;

(c) R^{3a} is H and R^{3b} is H, CH_3, $CH(CH_3)_2$, $CH_2CH(CH_3)_2$, $CH(CH_3)CH_2CH_3$, CH_2Ph, CH_2-indol-3-yl, -$CH_2CH_2SCH_3$, CH_2CO_2H, $CH_2C(O)NH_2$, CH_2CH_2COOH,

Gilead Exhibit 2023
PGR2023-00046 - Page 0069

$CH_2CH_2C(O)NH_2$, $CH_2CH_2CH_2CH_2NH_2$, $-CH_2CH_2CH_2NHC(NH)NH_2$, CH_2-imidazol-4-yl, CH_2OH, $CH(OH)CH_3$, CH_2((4'-OH)-Ph), CH_2SH, or lower cycloalkyl;

(d) R^4 is hydrogen, CH_3, Et, ^{i}Pr, ^{n}Pr, ^{n}Bu, 2-butyl, ^{t}Bu, benzyl, cyclopropyl, cyclobutyl, cyclopentyl, cyclohexyl, N-methyl-aziridin-2-yl, N-methyl-azetidin-3-yl, N-methyl-pyrrolidin-3-yl, N-methyl-pyrrolidin-4-yl, N-methyl-piperidin-4-yl, lower haloalkyl, or di(lower alkyl)amino-lower alkyl;

(e) R^5 is H, CN, CH_3, OCH_3, CH_2OH, CH_2F, halogen, including F, Cl, Br, or I, with the provisos that when X is OH, R^6 is CH_3 or CH_2F, R^5 cannot be H;

(f) R^6 is H, CH_3, CH_2F, CHF_2, CF_3, F, or CN;

(g) X is H, OH, F, OCH_3, Cl, Br, I, NH_2, or N_3;

(h) Y is OH, H, CH_3, vinyl, NH_2, N_3, CN, Cl, Br, F, I, $OC(O)CH_3$, OCH_3;

(i) R^{10} and R^{11} are independently H, F, Br, I, OH, OR', NH_2, NHR', NR'$_2$, CO_2R', $CONH_2$, CONHR', CONR'$_2$, $CH{=}CHCO_2H$, or $CH{=}CHCO_2R'$, with the proviso that when R^{10} is OH and R^{11} is not NH_2;

wherein R' is a lower alkyl, a lower cycloalkyl, or C(O)(lower alkyl) or alternatively, in the instance of NR'$_2$, each R' comprise at least one C atom that are joined to form a heterocycle comprising at least two carbon atoms; and

(j) Z is N or CR^{12}; and

R^{12} is an H, halogen (including F, Cl, Br, I), OR', NH_2, NHR', NR'$_2$, NO_2, lower alkyl of C_1-C_6, CO_2R', $CONH_2$, CONHR', CONR'$_2$, $CH{=}CHCO_2H$, or $CH{=}CHCO_2R'$.

A twelvth aspect of the third embodiment is directed to a compound represented by formula **I-6**

wherein

Gilead Exhibit 2023
PGR2023-00046 - Page 0070

(a) R^1 is hydrogen, methyl, ethyl, *n*-propyl, *i*-propyl, phenyl, p-tolyl, p-bromo-phenyl, p-chloro-phenyl, p-fluorophenyl;

(b) R^2 is hydrogen or CH_3;

(c) R^{3a} is H and R^{3b} is H, CH_3, $CH(CH_3)_2$, $CH_2CH(CH_3)_2$, $CH(CH_3)CH_2CH_3$, CH_2Ph, or lower cycloalkyl;

(d) R^4 is hydrogen, CH_3, Et, ^{i}Pr, ^{n}Pr, ^{n}Bu, 2-butyl, ^{t}Bu, benzyl, cyclopropyl, cyclobutyl, cyclopentyl, cyclohexyl, N-methyl-aziridin-2-yl, N-methyl-azetidin-3-yl, N-methyl-pyrrolidin-3-yl, N-methyl-pyrrolidin-4-yl, N-methyl-piperidin-4-yl, lower haloalkyl, or di(lower alkyl)amino-lower alkyl;

(e) R^5 is H, CN, CH_2F, F, Cl, Br, or I, with the provisos that when X is OH, R^6 is CH_3 or CH_2F, R^5 cannot be H;

(f) R^6 is H, CH_3, CH_2F, CHF_2, CF_3, or F;

(g) X is H, OH, F, OCH_3, F, Cl, Br, I, NH_2 or N_3;

(h) Y is H, OH, CH_3, F, Cl, Br, I, NH_2 or N_3, OCH_3, or $OC(O)CH_3$;

(i) R^{10} and R^{11} are independently H, F, Br, I, OH, OR', NH_2, NHR', NR'$_2$, CO_2R', $CONH_2$, CONHR', CONR'$_2$, CH=CHCO$_2$H, or CH=CHCO$_2$R', with the proviso that when R^{10} is OH and R^{11} is not NH_2;

wherein R' is a lower alkyl, a lower cycloalkyl, or C(O)(lower alkyl) or alternatively, in the instance of NR'$_2$, each R' comprise at least one C atom that are joined to form a heterocycle comprising at least two carbon atoms; and

(j) Z is N or CR^{12}; and

R^{12} is a H, halogen (including F, Cl, Br, I), OR', NH_2, NHR', NR'$_2$, NO_2, lower alkyl of C_1-C_6, CO_2R', $CONH_2$, CONHR', CONR'$_2$, CH=CHCO$_2$H, or CH=CHCO$_2$R'.

A thirteenth aspect of the third embodiment is directed to a compound represented

Gilead Exhibit 2023
PGR2023-00046 - Page 0071

by formula **I-6**

wherein

(a) R^1 is hydrogen, methyl, ethyl, *n*-propyl, *i*-propyl, phenyl, p-tolyl, p-bromo-phenyl, p-chloro-phenyl, p-fluorophenyl;

(b) R^2 is hydrogen;

(c) R^{3a} is H and R^{3b} is H, CH_3, $CH(CH_3)_2$, $CH_2CH(CH_3)_2$, $CH(CH_3)CH_2CH_3$, CH_2Ph, or lower cycloalkyl;

(d) R^4 is hydrogen, CH_3, Et, ^{i}Pr, ^{n}Pr, ^{n}Bu, 2-butyl, ^{t}Bu, benzyl, cyclopropyl, cyclobutyl, cyclopentyl, cyclohexyl, N-methyl-aziridin-2-yl, N-methyl-azetidin-3-yl, N-methyl-pyrrolidin-3-yl, N-methyl-pyrrolidin-4-yl, N-methyl-piperidin-4-yl, lower haloalkyl, or di(lower alkyl)amino-lower alkyl;

(e) R^5 is H, with the provisos that when X is OH, R^6 is CH_3 or CH_2F, R^5 cannot be H;

(f) R^6 is H, CH_3, CH_2F, CHF_2, CF_3, or F;

(g) X is H, OH, OCH_3, F, NH_2 or N_3;

(h) Y is OH, NH_2, OCH_3, or $OC(O)CH_3$;

(i) R^{10} and R^{11} are independently H, F, Br, I, OH, OR', NH_2, NHR', NR'$_2$, CO_2R', $CONH_2$, CONHR', CONR'$_2$, $CH{=}CHCO_2H$, or $CH{=}CHCO_2R'$, with the proviso that when R^{10} is OH and R^{11} is not NH_2;

wherein R' is a lower alkyl, a lower cycloalkyl, or C(O)(lower alkyl) or alternatively, in the instance of NR'$_2$, each R' comprise at least one C atom that are joined to form a heterocycle comprising at least two carbon atoms; and

(j) Z is N or CR^{12}; and

Gilead Exhibit 2023
PGR2023-00046 - Page 0072

R^{12} is an H, halogen (including F, Cl, Br, I), OR', NH_2, NHR', NR'$_2$, NO_2, lower alkyl of C_1-C_6, CO_2R', $CONH_2$, CONHR', CONR'$_2$, CH=$CHCO_2H$, or CH=$CHCO_2R'$.

A fourteenth aspect of the third embodiment is directed to a compound represented by formula **I-6**

wherein

(a) R^1 is hydrogen, methyl, phenyl, p-bromo-phenyl, p-chloro-phenyl, p-fluorophenyl;

(b) R^2 is hydrogen;

(c) R^{3a} is H and R^{3b} is H, CH_3, $CH(CH_3)_2$, $CH_2CH(CH_3)_2$, $CH(CH_3)CH_2CH_3$, CH_2Ph, or lower cycloalkyl;

(d) R^4 is hydrogen, CH_3, Et, ^{i}Pr, ^{n}Pr, ^{n}Bu, 2-butyl, ^{t}Bu, benzyl, cyclopropyl, cyclobutyl, cyclopentyl, cyclohexyl, N-methyl-aziridin-2-yl, N-methyl-azetidin-3-yl, N-methyl-pyrrolidin-3-yl, N-methyl-pyrrolidin-4-yl, N-methyl-piperidin-4-yl, lower haloalkyl, or di(lower alkyl)amino-lower alkyl;

(e) R^5 is H, with the provisos that when X is OH, R^6 is CH_3 or CH_2F, R^5 cannot be H;

(f) R^6 is H, CH_3, CH_2F, CHF_2, CF_3, or F;

(g) X is H, OH, OCH_3, F, NH_2 or N_3;

(h) Y is OH, NH_2, OCH_3, or $OC(O)CH_3$;

(i) R^{10} and R^{11} are independently H, F, Br, I, OH, OR', NH_2, NHR', NR'$_2$, CO_2R', $CONH_2$, CONHR', CONR'$_2$, CH=$CHCO_2H$, or CH=$CHCO_2R'$, with the proviso that when R^{10} is OH and R^{11} is not NH_2;

Gilead Exhibit 2023
PGR2023-00046 - Page 0073

wherein R' is a lower alkyl, a lower cycloalkyl, or C(O)(lower alkyl) or alternatively, in the instance of NR'_2, each R' comprise at least one C atom that are joined to form a heterocycle comprising at least two carbon atoms; and

(j) Z is N or CR^{12}; and

R^{12} is an H, halogen (including F, Cl, Br, I), OR', NH_2, NHR', NR'_2, NO_2, lower alkyl of C_1-C_6, CO_2R', $CONH_2$, CONHR', $CONR'_2$, $CH=CHCO_2H$, or $CH=CHCO_2R'$.

A fifteenth aspect of the third embodiment is directed to a compound represented by formula **I-6**

wherein

(a) R^1 is hydrogen, n-alkyl; branched alkyl; cycloalkyl; or aryl, which includes, but is not limited to, phenyl or naphthyl, where phenyl or naphthyl are optionally substituted with at least one of C_{1-6} alkyl, C_{2-6} alkenyl, C_{2-6} alkynyl, C_{1-6} alkoxy, F, Cl, Br, I, nitro, cyano, C_{1-6} haloalkyl, $-N(R^{1'})_2$, C_{1-6} acylamino, $-NHSO_2C_{1-6}$ alkyl, $-SO_2N(R^{1'})_2$, $COR^{1''}$, and $-SO_2C_{1-6}$ alkyl; ($R^{1'}$ is independently hydrogen or alkyl, which includes, but is not limited to, C_{1-20} alkyl, C_{1-10} alkyl, or C_{1-6} alkyl, $R^{1''}$ is –OR' or $-N(R^{1'})_2$);

(b) R^2 is hydrogen or CH_3;

(c) R^{3a} and R^{3b} are (i) independently selected from hydrogen, C_{1-10} alkyl, cycloalkyl, $-(CH_2)_c(NR^{3'})_2$, C_{1-6} hydroxyalkyl, $-CH_2SH$, $-(CH_2)_2S(O)_dMe$, $-(CH_2)_3NHC(=NH)NH_2$, (1H-indol-3-yl)methyl, (1H-imidazol-4-yl)methyl, $-(CH_2)_eCOR^{3''}$, aryl and aryl C_{1-3} alkyl, said aryl groups optionally substituted with a group selected from hydroxyl, C_{1-10} alkyl, C_{1-6} alkoxy, halogen, nitro and cyano; (ii) R^{3a} and R^{3b} both are C_{1-6} alkyl; (iii) R^{3a} and R^{3b} together are$(CH_2)_f$ so as to form a spiro ring; (iv) R^{3a} is hydrogen and R^{3b} and R^2 together are $(CH_2)_n$ so as to form a cyclic ring that includes the adjoining N and C atoms (v) R^{3b} is hydrogen and R^{3a} and R^2 together are $(CH_2)_n$ so as to form a cyclic ring that includes the adjoining N and C atoms, where c is 1 to 6, d is 0 to 2, e is 0 to 3, f is 2 to 5, n is 2 to 4, and where $R^{3'}$ is independently hydrogen

Gilead Exhibit 2023
PGR2023-00046 - Page 0074

or C_{1-6} alkyl and $R^{3''}$ is -OR' or –$N(R^{3'})_2$); (vi) R^{3a} is H and R^{3b} is H, CH_3, CH_2CH_3, $CH(CH_3)_2$, $CH_2CH(CH_3)_2$, $CH(CH_3)CH_2CH_3$, CH_2Ph, CH_2-indol-3-yl, -$CH_2CH_2SCH_3$, CH_2CO_2H, $CH_2C(O)NH_2$, CH_2CH_2COOH, $CH_2CH_2C(O)NH_2$, $CH_2CH_2CH_2CH_2NH_2$, -$CH_2CH_2CH_2NHC(NH)NH_2$, CH_2-imidazol-4-yl, CH_2OH, $CH(OH)CH_3$, CH_2((4'-OH)-Ph), CH_2SH, or lower cycloalkyl; or (viii) R^{3a} is CH_3, -CH_2CH_3, $CH(CH_3)_2$, $CH_2CH(CH_3)_2$, $CH(CH_3)CH_2CH_3$, CH_2Ph, CH_2-indol-3-yl, -$CH_2CH_2SCH_3$, CH_2CO_2H, $CH_2C(O)NH_2$, CH_2CH_2COOH, $CH_2CH_2C(O)NH_2$, $CH_2CH_2CH_2CH_2NH_2$, -$CH_2CH_2CH_2NHC(NH)NH_2$, CH_2-imidazol-4-yl, CH_2OH, $CH(OH)CH_3$, CH_2((4'-OH)-Ph), CH_2SH, or lower cycloalkyl and R^{3b} is H, where $R^{3'}$ is independently hydrogen or alkyl, which includes, but is not limited to, C_{1-20} alkyl, C_{1-10} alkyl, or C_{1-6} alkyl, $R^{3''}$ is –OR' or -$N(R^{3'})_2$);

(d) R^4 is hydrogen, C_{1-10} alkyl, C_{1-10} alkyl optionally substituted with a lower alkyl, alkoxy or halogen, C_{1-10} haloalkyl, C_{3-10} cycloalkyl, cycloalkyl alkyl, cycloheteroalkyl, aminoacyl, di(lower alkyl)amino-lower alkyl, aryl, such as phenyl, heteroaryl, such as, pyridinyl, substituted aryl, or substituted heteroaryl;

(e) R^5 is H, a lower alkyl, CN, vinyl, O-(lower alkyl), hydroxyl lower alkyl, i.e., -$(CH_2)_pOH$, where p is 1 -6, including hydroxyl methyl (CH_2OH), CH_2F, N_3, CH_2CN, CH_2NH_2, CH_2NHCH_3, $CH_2N(CH_3)_2$, alkyne (optionally substituted), or halogen, including F, Cl, Br, or I, with the provisos that when X is OH, base is cytosine and R^6 is H, R^5 cannot be N_3 and when X is OH, R^6 is CH_3 or CH_2F and B is a purine base, R^5 cannot be H;

(f) R^6 is H, CH_3, CH_2F, CHF_2, CF_3, F, or CN;

(g) X is H, OH, F, OMe, halogen, NH_2, or N_3;

(h) Y is OH, H, C_{1-4} alkyl, C_{2-4} alkenyl, C_{2-4} alkynyl, vinyl, N_3, CN, Cl, Br, F, I, NO_2, OC(O)O(C_{1-4} alkyl), OC(O)O(C_{1-4} alkyl), OC(O)O(C_{2-4} alkynyl), OC(O)O(C_{2-4} alkenyl), OC_{1-10} haloalkyl, O(aminoacyl), O(C_{1-10} acyl), O(C_{1-4} alkyl), O(C_{2-4} alkenyl), S(C_{1-4} acyl), S(C_{1-4} alkyl), S(C_{2-4} alkynyl), S(C_{2-4} alkenyl), SO(C_{1-4} acyl), SO(C_{1-4} alkyl), SO(C_{2-4} alkynyl), SO(C_{2-4} alkenyl), SO_2(C_{1-4} acyl), SO_2(C_{1-4} alkyl), SO_2(C_{2-4} alkynyl),

Gilead Exhibit 2023
PGR2023-00046 - Page 0075

$SO_2(C_{2-4}$ alkenyl), $OS(O)_2(C_{1-4}$ acyl), $OS(O)_2(C_{1-4}$ alkyl), $OS(O)_2(C_{2-4}$ alkenyl), NH_2, $NH(C_{1-4}$ alkyl), $NH(C_{2-4}$ alkenyl), $NH(C_{2-4}$ alkynyl), $NH(C_{1-4}$ acyl), $N(C_{1-4}$ alkyl)$_2$, $N(C_{1-18}$ acyl)$_2$, wherein alkyl, alkynyl, alkenyl and vinyl are optionally substituted by N_3, CN, one to three halogen (Cl, Br, F, I), NO_2, $C(O)O(C_{1-4}$ alkyl), $C(O)O(C_{1-4}$ alkyl), $C(O)O(C_{2-4}$ alkynyl), $C(O)O(C_{2-4}$ alkenyl), $O(C_{1-4}$ acyl), $O(C_{1-4}$ alkyl), $O(C_{2-4}$ alkenyl), $S(C_{1-4}$ acyl), $S(C_{1-4}$ alkyl), $S(C_{2-4}$ alkynyl), $S(C_{2-4}$ alkenyl), $SO(C_{1-4}$ acyl), $SO(C_{1-4}$ alkyl), $SO(C_{2-4}$ alkynyl), $SO(C_{2-4}$ alkenyl), $SO_2(C_{1-4}$ acyl), $SO_2(C_{1-4}$ alkyl), $SO_2(C_{2-4}$ alkynyl), $SO_2(C_{2-4}$ alkenyl), $OS(O)_2(C_{1-4}$ acyl), $OS(O)_2(C_{1-4}$ alkyl), $OS(O)_2(C_{2-4}$ alkenyl), NH_2, $NH(C_{1-4}$ alkyl), $NH(C_{2-4}$ alkenyl), $NH(C_{2-4}$ alkynyl), $NH(C_{1-4}$ acyl), $N(C_{1-4}$ alkyl)$_2$, $N(C_{1-4}$ acyl)$_2$;

(i) R^{10} is NH_2 and R^{11} is H, F, Br, I, OH, OR', NH_2, NHR', NR'$_2$, CO_2R', $CONH_2$, CONHR', CONR'$_2$, $CH{=}CHCO_2H$, or $CH{=}CHCO_2R'$;

wherein R' is a lower alkyl, a lower cycloalkyl, or C(O)(lower alkyl) or alternatively, in the instance of NR'$_2$, each R' comprise at least one C atom that are joined to form a heterocycle comprising at least two carbon atoms; and

(j) Z is N or CR^{12}; and

R^{12} is an H, halogen (including F, Cl, Br, I), OR', NH_2, NHR', NR'$_2$, NO_2, lower alkyl of C_1-C_6, CO_2R', $CONH_2$, CONHR', CONR'$_2$, $CH{=}CHCO_2H$, or $CH{=}CHCO_2R'$.

An sixteenth aspect of the third embodiment is directed to a compound represented by formula **I-6**

wherein

(a) R^1 is hydrogen, methyl, ethyl, *n*-propyl, *i*-propyl, phenyl, p-tolyl, p-bromo-phenyl, p-chloro-phenyl, p-fluorophenyl;

(b) R^2 is hydrogen or CH_3;

(c) R^{3a} is H and R^{3b} is H, CH_3, $CH(CH_3)_2$, $CH_2CH(CH_3)_2$, $CH(CH_3)CH_2CH_3$, CH_2Ph, CH_2-indol-3-yl, $-CH_2CH_2SCH_3$, CH_2CO_2H, $CH_2C(O)NH_2$, CH_2CH_2COOH,

Gilead Exhibit 2023
PGR2023-00046 - Page 0076

$CH_2CH_2C(O)NH_2$, $CH_2CH_2CH_2CH_2NH_2$, $-CH_2CH_2CH_2NHC(NH)NH_2$, CH_2-imidazol-4-yl, CH_2OH, $CH(OH)CH_3$, CH_2((4'-OH)-Ph), CH_2SH, or lower cycloalkyl;

(d) R^4 is hydrogen, CH_3, Et, ^{i}Pr, ^{n}Pr, ^{n}Bu, 2-butyl, ^{t}Bu, benzyl, cyclopropyl, cyclobutyl, cyclopentyl, cyclohexyl, N-methyl-aziridin-2-yl, N-methyl-azetidin-3-yl, N-methyl-pyrrolidin-3-yl, N-methyl-pyrrolidin-4-yl, N-methyl-piperidin-4-yl, lower haloalkyl, or di(lower alkyl)amino-lower alkyl;

(e) R^5 is H, CN, CH_3, OCH_3, CH_2OH, CH_2F, halogen, including F, Cl, Br, or I, with the provisos that when X is OH, R^6 is CH_3 or CH_2F, R^5 cannot be H;

(f) R^6 is H, CH_3, CH_2F, CHF_2, CF_3, F, or CN;

(g) X is H, OH, F, OCH_3, Cl, Br, I, NH_2, or N_3;

(h) Y is OH, H, CH_3, vinyl, NH_2, N_3, CN, Cl, Br, F, I, $OC(O)CH_3$, OCH_3;

(i) R^{10} is NH_2 and R^{11} is H, F, Br, I, OH, OR', NH_2, NHR', NR'$_2$, CO_2R', $CONH_2$, CONHR', CONR'$_2$, CH=$CHCO_2$H, or CH=$CHCO_2$R';

wherein R' is a lower alkyl, a lower cycloalkyl, or C(O)(lower alkyl) or alternatively, in the instance of NR'$_2$, each R' comprise at least one C atom that are joined to form a heterocycle comprising at least two carbon atoms; and

(j) Z is N or CR^{12}; and

R^{12} is an H, halogen (including F, Cl, Br, I), OR', NH_2, NHR', NR'$_2$, NO_2, lower alkyl of C_1-C_6, CO_2R', $CONH_2$, CONHR', CONR'$_2$, CH=$CHCO_2$H, or CH=$CHCO_2$R'.

A seventeenth aspect of the third embodiment is directed to a compound represented by formula **I-6**

wherein

(a) R^1 is hydrogen, methyl, ethyl, *n*-propyl, *i*-propyl, phenyl, p-tolyl, p-bromo-phenyl, p-chloro-phenyl, p-fluorophenyl;

Gilead Exhibit 2023
PGR2023-00046 - Page 0077

(b) R^2 is hydrogen or CH_3;

(c) R^{3a} is H and R^{3b} is H, CH_3, $CH(CH_3)_2$, $CH_2CH(CH_3)_2$, $CH(CH_3)CH_2CH_3$, CH_2Ph, or lower cycloalkyl;

(d) R^4 is hydrogen, CH_3, Et, ^{i}Pr, ^{n}Pr, ^{n}Bu, 2-butyl, ^{t}Bu, benzyl, cyclopropyl, cyclobutyl, cyclopentyl, cyclohexyl, N-methyl-aziridin-2-yl, N-methyl-azetidin-3-yl, N-methyl-pyrrolidin-3-yl, N-methyl-pyrrolidin-4-yl, N-methyl-piperidin-4-yl, lower haloalkyl, or di(lower alkyl)amino-lower alkyl;

(e) R^5 is H, CN, CH_2F, F, Cl, Br, or I, with the provisos that when X is OH, R^6 is CH_3 or CH_2F, R^5 cannot be H;

(f) R^6 is H, CH_3, CH_2F, CHF_2, CF_3, or F;

(g) X is H, OH, F, OCH_3, F, Cl, Br, I, NH_2 or N_3;

(h) Y is H, OH, CH_3, F, Cl, Br, I, NH_2 or N_3, OCH_3, or $OC(O)CH_3$;

(i) R^{10} is NH_2 and R^{11} is H, F, Br, I, OH, OR', NH_2, NHR', NR'$_2$, CO_2R', $CONH_2$, CONHR', CONR'$_2$, $CH{=}CHCO_2H$, or $CH{=}CHCO_2R'$;

wherein R' is a lower alkyl, a lower cycloalkyl, or C(O)(lower alkyl) or alternatively, in the instance of NR'$_2$, each R' comprise at least one C atom that are joined to form a heterocycle comprising at least two carbon atoms; and

(j) Z is N or CR^{12}; and

R^{12} is an H, halogen (including F, Cl, Br, I), OR', NH_2, NHR', NR'$_2$, NO_2, lower alkyl of C_1-C_6, CO_2R', $CONH_2$, CONHR', CONR'$_2$, $CH{=}CHCO_2H$, or $CH{=}CHCO_2R'$.

An eighteenth aspect of the third embodiment is directed to a compound represented by formula **I-6**

wherein

Gilead Exhibit 2023
PGR2023-00046 - Page 0078

(a) R^1 is hydrogen, methyl, ethyl, *n*-propyl, *i*-propyl, phenyl, p-tolyl, p-bromo-phenyl, p-chloro-phenyl, p-fluorophenyl;

(b) R^2 is hydrogen;

(c) R^{3a} is H and R^{3b} is H, CH_3, $CH(CH_3)_2$, $CH_2CH(CH_3)_2$, $CH(CH_3)CH_2CH_3$, CH_2Ph, or lower cycloalkyl;

(d) R^4 is hydrogen, CH_3, Et, ^{i}Pr, ^{n}Pr, ^{n}Bu, 2-butyl, ^{t}Bu, benzyl, cyclopropyl, cyclobutyl, cyclopentyl, cyclohexyl, N-methyl-aziridin-2-yl, N-methyl-azetidin-3-yl, N-methyl-pyrrolidin-3-yl, N-methyl-pyrrolidin-4-yl, N-methyl-piperidin-4-yl, lower haloalkyl, or di(lower alkyl)amino-lower alkyl;

(e) R^5 is H, with the provisos that when X is OH, R^6 is CH_3 or CH_2F, R^5 cannot be H;

(f) R^6 is H, CH_3, CH_2F, CHF_2, CF_3, or F;

(g) X is H, OH, OCH_3, F, NH_2 or N_3;

(h) Y is OH, NH_2, OCH_3, or $OC(O)CH_3$;

(i) R^{10} is NH_2 and R^{11} is H, F, Br, I, OH, OR', NH_2, NHR', NR'$_2$, CO_2R', $CONH_2$, CONHR', CONR'$_2$, CH=CHCO_2H, or CH=CHCO_2R';

wherein R' is a lower alkyl, a lower cycloalkyl, or C(O)(lower alkyl) or alternatively, in the instance of NR'$_2$, each R' comprise at least one C atom that are joined to form a heterocycle comprising at least two carbon atoms; and

(j) Z is N or CR^{12}; and

R^{12} is an H, halogen (including F, Cl, Br, I), OR', NH_2, NHR', NR'$_2$, NO_2, lower alkyl of C_1-C_6, CO_2R', $CONH_2$, CONHR', CONR'$_2$, CH=CHCO_2H, or CH=CHCO_2R'.

A nineteenth aspect of the third embodiment is directed to a compound represented by formula **I-6**

Gilead Exhibit 2023
PGR2023-00046 - Page 0079

wherein

(a) R^1 is hydrogen, methyl, phenyl, p-bromo-phenyl, p-chloro-phenyl, p-fluorophenyl;

(b) R^2 is hydrogen;

(c) R^{3a} is H and R^{3b} is H, CH_3, $CH(CH_3)_2$, $CH_2CH(CH_3)_2$, $CH(CH_3)CH_2CH_3$, CH_2Ph, or lower cycloalkyl;

(d) R^4 is hydrogen, CH_3, Et, ^{i}Pr, ^{n}Pr, ^{n}Bu, 2-butyl, ^{t}Bu, benzyl, cyclopropyl, cyclobutyl, cyclopentyl, cyclohexyl, N-methyl-aziridin-2-yl, N-methyl-azetidin-3-yl, N-methyl-pyrrolidin-3-yl, N-methyl-pyrrolidin-4-yl, N-methyl-piperidin-4-yl, lower haloalkyl, or di(lower alkyl)amino-lower alkyl;

(e) R^5 is H, with the provisos that when X is OH, R^6 is CH_3 or CH_2F, R^5 cannot be H;

(f) R^6 is H, CH_3, CH_2F, CHF_2, CF_3, or F;

(g) X is H, OH, OCH_3, F, NH_2 or N_3;

(h) Y is OH, NH_2, OCH_3, or $OC(O)CH_3$;

(i) R^{10} is NH_2 and R^{11} are independently H, F, Br, I, OH, OR', NH_2, NHR', NR'_2, CO_2R', $CONH_2$, CONHR', $CONR'_2$, $CH{=}CHCO_2H$, or $CH{=}CHCO_2R'$;

wherein R' is a lower alkyl, a lower cycloalkyl, or C(O)(lower alkyl) or alternatively, in the instance of NR'_2, each R' comprise at least one C atom that are joined to form a heterocycle comprising at least two carbon atoms; and

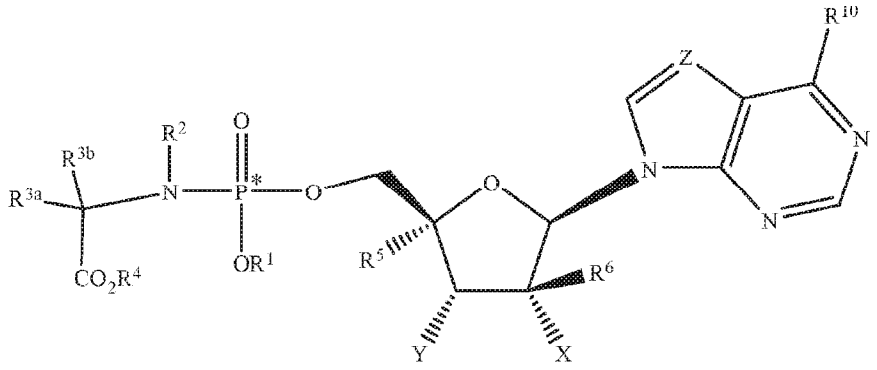
(j) Z is N or CR^{12}; and

R^{12} is an H, halogen (including F, Cl, Br, I), OR', NH_2, NHR', NR'_2, NO_2, lower alkyl of C_1-C_6, CO_2R', $CONH_2$, CONHR', $CONR'_2$, $CH{=}CHCO_2H$, or $CH{=}CHCO_2R'$.

Gilead Exhibit 2023
PGR2023-00046 - Page 0080

A fourth embodiment of the invention is directed to a compound represented by formula I in which the base is a structure represented by formula **c** above, where R^{11} is H and R^2, R^{3a}, R^{3b}, R^4, R^5, R^6, X, and Y are defined in the Summary of the Invention section above.

A first aspect of the fourth embodiment is directed to a compound represented by formula **I-7**



I-7

wherein

(a) R^1 is hydrogen, n-alkyl; branched alkyl; cycloalkyl; or aryl, which includes, but is not limited to, phenyl or naphthyl, where phenyl or naphthyl are optionally substituted with at least one of C_{1-6} alkyl, C_{2-6} alkenyl, C_{2-6} alkynyl, C_{1-6} alkoxy, F, Cl, Br, I, nitro, cyano, C_{1-6} haloalkyl, $-N(R^{1'})_2$, C_{1-6} acylamino, $-NHSO_2C_{1-6}$ alkyl, $-SO_2N(R^{1'})_2$, $COR^{1''}$, and $-SO_2C_{1-6}$ alkyl; ($R^{1'}$ is independently hydrogen or alkyl, which includes, but is not limited to, C_{1-20} alkyl, C_{1-10} alkyl, or C_{1-6} alkyl, $R^{1''}$ is –OR' or $-N(R^{1'})_2$);

(b) R^2 is hydrogen or CH_3;

(c) R^{3a} and R^{3b} are (i) independently selected from hydrogen, C_{1-10} alkyl, cycloalkyl, $-(CH_2)_d(NR^{3'})_2$, C_{1-6} hydroxyalkyl, $-CH_2SH$, $-(CH_2)_2S(O)_dMe$, $-(CH_2)_3NHC(=NH)NH_2$, (1H-indol-3-yl)methyl, (1H-imidazol-4-yl)methyl, -

Gilead Exhibit 2023
PGR2023-00046 - Page 0081

$(CH_2)_eCOR^{3''}$, aryl and aryl C_{1-3} alkyl, said aryl groups optionally substituted with a group selected from hydroxyl, C_{1-10} alkyl, C_{1-6} alkoxy, halogen, nitro and cyano; (ii) R^{3a} and R^{3b} both are C_{1-6} alkyl; (iii) R^{3a} and R^{3b} together are$(CH_2)_f$ so as to form a spiro ring; (iv) R^{3a} is hydrogen and R^{3b} and R^2 together are $(CH_2)_n$ so as to form a cyclic ring that includes the adjoining N and C atoms (v) R^{3b} is hydrogen and R^{3a} and R^2 together are $(CH_2)_n$ so as to form a cyclic ring that includes the adjoining N and C atoms, where c is 1 to 6, d is 0 to 2, e is 0 to 3, f is 2 to 5, n is 2 to 4, and where $R^{3'}$ is independently hydrogen or C_{1-6} alkyl and $R^{3''}$ is -OR' or $-N(R^{3'})_2$); (vi) R^{3a} is H and R^{3b} is H, CH_3, CH_2CH_3, $CH(CH_3)_2$, $CH_2CH(CH_3)_2$, $CH(CH_3)CH_2CH_3$, CH_2Ph, CH_2-indol-3-yl, $-CH_2CH_2SCH_3$, CH_2CO_2H, $CH_2C(O)NH_2$, CH_2CH_2COOH, $CH_2CH_2C(O)NH_2$, $CH_2CH_2CH_2CH_2NH_2$, $-CH_2CH_2CH_2NHC(NH)NH_2$, CH_2-imidazol-4-yl, CH_2OH, $CH(OH)CH_3$, CH_2((4'-OH)-Ph), CH_2SH, or lower cycloalkyl; or (viii) R^{3a} is CH_3, $-CH_2CH_3$, $CH(CH_3)_2$, $CH_2CH(CH_3)_2$, $CH(CH_3)CH_2CH_3$, CH_2Ph, CH_2-indol-3-yl, $-CH_2CH_2SCH_3$, CH_2CO_2H, $CH_2C(O)NH_2$, CH_2CH_2COOH, $CH_2CH_2C(O)NH_2$, $CH_2CH_2CH_2CH_2NH_2$, $-CH_2CH_2CH_2NHC(NH)NH_2$, CH_2-imidazol-4-yl, CH_2OH, $CH(OH)CH_3$, CH_2((4'-OH)-Ph), CH_2SH, or lower cycloalkyl and R^{3b} is H, where $R^{3'}$ is independently hydrogen or alkyl, which includes, but is not limited to, C_{1-20} alkyl, C_{1-10} alkyl, or C_{1-6} alkyl, $R^{3''}$ is –OR' or $-N(R^{3'})_2$);

(d) R^4 is hydrogen, C_{1-10} alkyl, C_{1-10} alkyl optionally substituted with a lower alkyl, alkoxy or halogen, C_{1-10} haloalkyl, C_{3-10} cycloalkyl, cycloalkyl alkyl, cycloheteroalkyl, aminoacyl, di(lower alkyl)amino-lower alkyl, aryl, such as phenyl, heteroaryl, such as, pyridinyl, substituted aryl, or substituted heteroaryl;

(e) R^5 is H, a lower alkyl, CN, vinyl, O-(lower alkyl), hydroxyl lower alkyl, i.e., $-(CH_2)_pOH$, where p is 1 -6, including hydroxyl methyl (CH_2OH), CH_2F, N_3, CH_2CN, CH_2NH_2, CH_2NHCH_3, $CH_2N(CH_3)_2$, alkyne (optionally substituted), or halogen, including F, Cl, Br, or I, with the provisos that when X is OH, base is cytosine and R^6 is H, R^5 cannot be N_3 and when X is OH, R^6 is CH_3 or CH_2F and B is a purine base, R^5 cannot be H;

(f) R^6 is H, CH_3, CH_2F, CHF_2, CF_3, F, or CN;

Gilead Exhibit 2023
PGR2023-00046 - Page 0082

(g) X is H, OH, F, OMe, halogen, NH_2, or N_3;

(h) Y is OH, H, C_{1-4} alkyl, C_{2-4} alkenyl, C_{2-4} alkynyl, vinyl, N_3, CN, Cl, Br, F, I, NO_2, $OC(O)O(C_{1-4}$ alkyl), $OC(O)O(C_{1-4}$ alkyl), $OC(O)O(C_{2-4}$ alkynyl), $OC(O)O(C_{2-4}$ alkenyl), OC_{1-10} haloalkyl, O(aminoacyl), $O(C_{1-10}$ acyl), $O(C_{1-4}$ alkyl), $O(C_{2-4}$ alkenyl), $S(C_{1-4}$ acyl), $S(C_{1-4}$ alkyl), $S(C_{2-4}$ alkynyl), $S(C_{2-4}$ alkenyl), $SO(C_{1-4}$ acyl), $SO(C_{1-4}$ alkyl), $SO(C_{2-4}$ alkynyl), $SO(C_{2-4}$ alkenyl), $SO_2(C_{1-4}$ acyl), $SO_2(C_{1-4}$ alkyl), $SO_2(C_{2-4}$ alkynyl), $SO_2(C_{2-4}$ alkenyl), $OS(O)_2(C_{1-4}$ acyl), $OS(O)_2(C_{1-4}$ alkyl), $OS(O)_2(C_{2-4}$ alkenyl), NH_2, $NH(C_{1-4}$ alkyl), $NH(C_{2-4}$ alkenyl), $NH(C_{2-4}$ alkynyl), $NH(C_{1-4}$ acyl), $N(C_{1-4}$ alkyl)$_2$, $N(C_{1-18}$ acyl)$_2$, wherein alkyl, alkynyl, alkenyl and vinyl are optionally substituted by N_3, CN, one to three halogen (Cl, Br, F, I), NO_2, $C(O)O(C_{1-4}$ alkyl), $C(O)O(C_{1-4}$ alkyl), $C(O)O(C_{2-4}$ alkynyl), $C(O)O(C_{2-4}$ alkenyl), $O(C_{1-4}$ acyl), $O(C_{1-4}$ alkyl), $O(C_{2-4}$ alkenyl), $S(C_{1-4}$ acyl), $S(C_{1-4}$ alkyl), $S(C_{2-4}$ alkynyl), $S(C_{2-4}$ alkenyl), $SO(C_{1-4}$ acyl), $SO(C_{1-4}$ alkyl), $SO(C_{2-4}$ alkynyl), $SO(C_{2-4}$ alkenyl), $SO_2(C_{1-4}$ acyl), $SO_2(C_{1-4}$ alkyl), $SO_2(C_{2-4}$ alkynyl), $SO_2(C_{2-4}$ alkenyl), $OS(O)_2(C_{1-4}$ acyl), $OS(O)_2(C_{1-4}$ alkyl), $OS(O)_2(C_{2-4}$ alkenyl), NH_2, $NH(C_{1-4}$ alkyl), $NH(C_{2-4}$ alkenyl), $NH(C_{2-4}$ alkynyl), $NH(C_{1-4}$ acyl), $N(C_{1-4}$ alkyl)$_2$, $N(C_{1-4}$ acyl)$_2$;

(i) R^{10} is H, F, Cl, Br, I, OH, OR', SH, SR', NH_2, NHR', NR'$_2$, lower alkyl of C_1-C_6, halogenated (F, Cl, Br, I) lower alkyl of C_1-C_6, lower alkenyl of C_2-C_6, halogenated (F, Cl, Br, I) lower alkenyl of C_2-C_6, lower alkynyl of C_2-C_6 such as C≡CH, halogenated (F, Cl, Br, I) lower alkynyl of C_2-C_6, lower alkoxy of C_1-C_6, halogenated (F, Cl, Br, I) lower alkoxy of C_1-C_6, CO_2H, CO_2R', $CONH_2$, CONHR', CONR'$_2$, $CH=CHCO_2H$, or $CH=CHCO_2R'$,

wherein R' is an optionally substituted alkyl , which includes, but is not limited to, an optionally substituted C_{1-20} alkyl, an optionally substituted C_{1-10} alkyl, an optionally substituted lower alkyl; an optionally substituted cycloalkyl; an optionally substituted alkynyl of C_2-C_6, an optionally substituted lower alkenyl of C_2-C_6, or optionally substituted acyl, which includes but is not limited to C(O) alkyl, $C(O)(C_{1-20}$ alkyl), $C(O)(C_{1-10}$ alkyl), or C(O)(lower alkyl) or alternatively, in the instance of NR'$_2$, each R' comprise at least one C atom that are joined to form a heterocycle comprising at least two carbon atoms; and

Gilead Exhibit 2023
PGR2023-00046 - Page 0083

(j) Z is N or CR^{12}; and

R^{12} is H, halogen (including F, Cl, Br, I), OH, OR', SH, SR', NH_2, NHR', NR'$_2$, NO_2 lower alkyl of C_1-C_6, halogenated (F, Cl, Br, I) lower alkyl of C_1-C_6, lower alkenyl of C_2-C_6, halogenated (F, Cl, Br, I) lower alkenyl of C_2-C_6 , lower alkynyl of C_2-C_6, halogenated (F, Cl, Br, I) lower alkynyl of C_2-C_6, lower alkoxy of C_1-C_6, halogenated (F, Cl, Br, I) lower alkoxy of C_1-C_6, CO_2H, CO_2R', $CONH_2$, CONHR', CONR'$_2$, $CH=CHCO_2H$, or $CH=CHCO_2R'$; with the proviso that R^{12} is not a: (i) –C≡C–H, (ii) –$C=CH_2$, or (iii) $–NO_2$.

A second aspect of the fourth embodiment is directed to a compound represented by formula **I-7**

wherein

(a) R^1 is hydrogen, methyl, ethyl, *n*-propyl, *i*-propyl, phenyl, p-tolyl, p-bromo-phenyl, p-chloro-phenyl, p-fluorophenyl;

(b) R^2 is hydrogen or CH_3;

(c) R^{3a} is H and R^{3b} is H, CH_3, $CH(CH_3)_2$, $CH_2CH(CH_3)_2$, $CH(CH_3)CH_2CH_3$, CH_2Ph, CH_2-indol-3-yl, $-CH_2CH_2SCH_3$, CH_2CO_2H, $CH_2C(O)NH_2$, CH_2CH_2COOH, $CH_2CH_2C(O)NH_2$, $CH_2CH_2CH_2CH_2NH_2$, $-CH_2CH_2CH_2NHC(NH)NH_2$, CH_2-imidazol-4-yl, CH_2OH, $CH(OH)CH_3$, CH_2((4'-OH)-Ph), CH_2SH, or lower cycloalkyl;

(d) R^4 is hydrogen, CH_3, Et, ^{i}Pr, ^{n}Pr, ^{n}Bu, 2-butyl, ^{t}Bu, benzyl, cyclopropyl, cyclobutyl, cyclopentyl, cyclohexyl, N-methyl-aziridin-2-yl, N-methyl-azetidin-3-yl, N-methyl-pyrrolidin-3-yl, N-methyl-pyrrolidin-4-yl, N-methyl-piperidin-4-yl, lower haloalkyl, or di(lower alkyl)amino-lower alkyl;

(e) R^5 is H, CN, CH_3, OCH_3, CH_2OH, CH_2F, halogen, including F, Cl, Br, or I, with the provisos that when X is OH, R^6 is CH_3 or CH_2F, R^5 cannot be H.

(f) R^6 is H, CH_3, CH_2F, CHF_2, CF_3, F, or CN;

Gilead Exhibit 2023
PGR2023-00046 - Page 0084

(g) X is H, OH, F, OCH_3, halogen, NH_2, or N_3;

(h) Y is OH, H, CH_3, vinyl, NH_2, N_3, CN, Cl, Br, F, I, $OC(O)CH_3$, OCH_3;

(i) R^{10} is H, F, Br, I, OH, OR', NH_2, NHR', NR'$_2$, CO_2R', $CONH_2$, CONHR', CONR'$_2$, $CH=CHCO_2H$, or $CH=CHCO_2R'$,

wherein R' is a lower alkyl, a lower cycloalkyl, or C(O)(lower alkyl) or alternatively, in the instance of NR'$_2$, each R' comprise at least one C atom that are joined to form a heterocycle comprising at least two carbon atoms; and

(j) Z is N or CR^{12}; and

R^{12} is H, halogen (including F, Cl, Br, I), OR', NH_2, NHR', NR'$_2$, NO_2, lower alkyl of C_1-C_6, CO_2R', $CONH_2$, CONHR', CONR'$_2$, $CH=CHCO_2H$, or $CH=CHCO_2R'$; with the proviso that R^{12} is not a: (i) $-C\equiv C-H$, (ii) $-C=CH_2$, or (iii) $-NO_2$.

A third aspect of the third embodiment is directed to a compound represented by formula **I-7**

wherein

(a) R^1 is hydrogen, methyl, ethyl, *n*-propyl, *i*-propyl, phenyl, p-tolyl, p-bromo-phenyl, p-chloro-phenyl, p-fluorophenyl;

(b) R^2 is hydrogen or CH_3;

(c) R^{3a} is H and R^{3b} is H, CH_3, $CH(CH_3)_2$, $CH_2CH(CH_3)_2$, $CH(CH_3)CH_2CH_3$, CH_2Ph, or lower cycloalkyl;

(d) R^4 is hydrogen, CH_3, Et, ^{i}Pr, ^{n}Pr, ^{n}Bu, 2-butyl, ^{t}Bu, benzyl, cyclopropyl, cyclobutyl, cyclopentyl, cyclohexyl, N-methyl-aziridin-2-yl, N-methyl-azetidin-3-yl, N-methyl-pyrrolidin-3-yl, N-methyl-pyrrolidin-4-yl, N-methyl-piperidin-4-yl, lower haloalkyl, or di(lower alkyl)amino-lower alkyl;

Gilead Exhibit 2023
PGR2023-00046 - Page 0085

(e) R^5 is H, CN, CH_2F, F, Cl, Br, or I; with the proviso that X is OH, R^6 is CH_3 or CH_2F, R^5 cannot be H;

(f) R^6 is H, CH_3, CH_2F, CHF_2, CF_3, or F;

(g) X is H, OH, F, OCH_3, F, Cl, Br, I, NH_2 or N_3;

(h) Y is H, OH, CH_3, F, Cl, Br, I, NH_2 or N_3, OCH_3, or $OC(O)CH_3$;

(i) R^{10} is H, F, Br, I, OH, OR', NH_2, NHR', NR'$_2$, CO_2R', $CONH_2$, CONHR', CONR'$_2$, $CH{=}CHCO_2H$, or $CH{=}CHCO_2R'$,

wherein R' is a lower alkyl, a lower cycloalkyl, or C(O)(lower alkyl) or alternatively, in the instance of NR'$_2$, each R' comprise at least one C atom that are joined to form a heterocycle comprising at least two carbon atoms; and

(j) Z is N or CR^{12}; and

R^{12} is H, halogen (including F, Cl, Br, I), OR', NH_2, NHR', NR'$_2$, NO_2, lower alkyl of C_1-C_6, CO_2R', $CONH_2$, CONHR', CONR'$_2$, $CH{=}CHCO_2H$, or $CH{=}CHCO_2R'$; with the proviso that R^{12} is not a: (i) $-C{\equiv}C-H$, (ii) $-C{=}CH_2$, or (iii) $-NO_2$.

A fourth aspect of the fourth embodiment is directed to a compound represented by formula **I-7**

wherein

(a) R^1 is hydrogen, methyl, ethyl, *n*-propyl, *i*-propyl, phenyl, p-tolyl, p-bromo-phenyl, p-chloro-phenyl, p-fluorophenyl;

(b) R^2 is hydrogen;

(c) R^{3a} is H and R^{3b} is H, CH_3, $CH(CH_3)_2$, $CH_2CH(CH_3)_2$, $CH(CH_3)CH_2CH_3$, CH_2Ph, or lower cycloalkyl;

(d) R^4 is hydrogen, CH_3, Et, ^{i}Pr, ^{n}Pr, ^{n}Bu, 2-butyl, ^{t}Bu, benzyl, cyclopropyl, cyclobutyl, cyclopentyl, cyclohexyl, N-methyl-aziridin-2-yl, N-methyl-azetidin-3-yl, N-

Gilead Exhibit 2023
PGR2023-00046 - Page 0086

methyl-pyrrolidin-3-yl, N-methyl-pyrrolidin-4-yl, N-methyl-piperidin-4-yl, lower haloalkyl, or di(lower alkyl)amino-lower alkyl;

(e) R^5 is H, with the provisos that when X is OH, R^6 is CH_3 or CH_2F, R^5 cannot be H;

(f) R^6 is H, CH_3, CH_2F, CHF_2, CF_3, or F;

(g) X is H, OH, OCH_3, F, NH_2 or N_3;

(h) Y is OH, NH_2, OCH_3, or $OC(O)CH_3$;

(i) R^{10} and R^{11} H, F, Br, I, OH, OR', NH_2, NHR', NR'$_2$, CO_2R', $CONH_2$, CONHR', CONR'$_2$, $CH=CHCO_2H$, or $CH=CHCO_2R'$,

wherein R' is a lower alkyl, a lower cycloalkyl, or C(O)(lower alkyl) or alternatively, in the instance of NR'$_2$, each R' comprise at least one C atom that are joined to form a heterocycle comprising at least two carbon atoms; and

(j) Z is N or CR^{12}; and

R^{12} is an H, halogen (including F, Cl, Br, I), OR', NH_2, NHR', NR'$_2$, NO_2, lower alkyl of C_1-C_6, CO_2R', $CONH_2$, CONHR', CONR'$_2$, $CH=CHCO_2H$, or $CH=CHCO_2R'$; with the proviso that R^{12} is not a: (i) $-C\equiv C-H$, (ii) $-C=CH_2$, or (iii) $-NO_2$.

A fifth aspect of the fourth embodiment is directed to a compound represented by formula I-7

wherein

(a) R^1 is hydrogen, methyl, phenyl, p-bromo-phenyl, p-chloro-phenyl, p-fluorophenyl;

(b) R^2 is hydrogen;

(c) R^{3a} is H and R^{3b} is H, CH_3, $CH(CH_3)_2$, $CH_2CH(CH_3)_2$, $CH(CH_3)CH_2CH_3$, CH_2Ph, or lower cycloalkyl;

Gilead Exhibit 2023
PGR2023-00046 - Page 0087

(d) R^4 is hydrogen, CH_3, Et, ^{i}Pr, ^{n}Pr, ^{n}Bu, 2-butyl, ^{t}Bu, benzyl, cyclopropyl, cyclobutyl, cyclopentyl, cyclohexyl, N-methyl-aziridin-2-yl, N-methyl-azetidin-3-yl, N-methyl-pyrrolidin-3-yl, N-methyl-pyrrolidin-4-yl, N-methyl-piperidin-4-yl, lower haloalkyl, or di(lower alkyl)amino-lower alkyl;

(e) R^5 is H, with the provisos that when X is OH, R^6 is CH_3 or CH_2F, R^5 cannot be H;

(f) R^6 is H, CH_3, CH_2F, CHF_2, CF_3, or F;

(g) X is H, OH, OCH_3, F, NH_2 or N_3;

(h) Y is OH, NH_2, OCH_3, or $OC(O)CH_3$;

(i) R^{10} is H, F, Br, I, OH, OR', NH_2, NHR', NR'$_2$, CO_2R', $CONH_2$, CONHR', CONR'$_2$, CH=CHCO$_2$H, or CH=CHCO$_2$R',

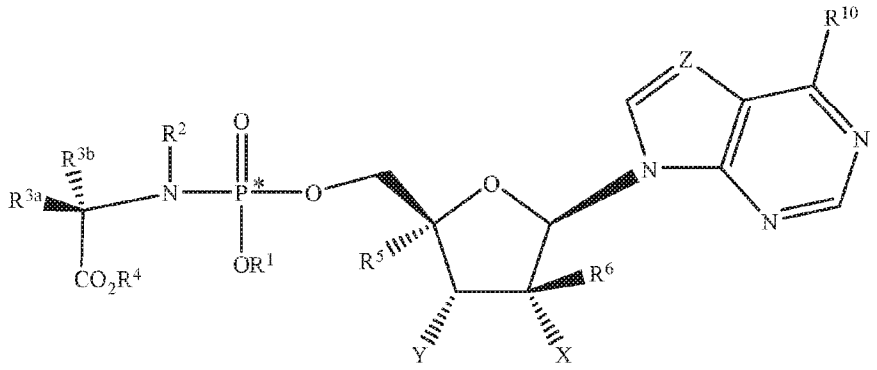
wherein R' is a lower alkyl, a lower cycloalkyl, or C(O)(lower alkyl) or alternatively, in the instance of NR'$_2$, each R' comprise at least one C atom that are joined to form a heterocycle comprising at least two carbon atoms; and

(j) Z is N or CR^{12}; and

R^{12} is H, halogen (including F, Cl, Br, I), OR', NH_2, NHR', NR'$_2$, NO_2, lower alkyl of C_1-C_6, CO_2R', $CONH_2$, CONHR', CONR'$_2$, CH=CHCO$_2$H, or CH=CHCO$_2$R'.

A sixth aspect of the fourth embodiment is directed to a compound represented by formula **I-8**

Gilead Exhibit 2023
PGR2023-00046 - Page 0088



I-8

wherein

(a) R^1 is hydrogen, n-alkyl; branched alkyl; cycloalkyl; or aryl, which includes, but is not limited to, phenyl or naphthyl, where phenyl or naphthyl are optionally substituted with at least one of C_{1-6} alkyl, C_{2-6} alkenyl, C_{2-6} alkynyl, C_{1-6} alkoxy, F, Cl, Br, I, nitro, cyano, C_{1-6} haloalkyl, $-N(R^{1'})_2$, C_{1-6} acylamino, $-NHSO_2C_{1-6}$ alkyl, $-SO_2N(R^{1'})_2$, $COR^{1''}$, and $-SO_2C_{1-6}$ alkyl; ($R^{1'}$ is independently hydrogen or alkyl, which includes, but is not limited to, C_{1-20} alkyl, C_{1-10} alkyl, or C_{1-6} alkyl, $R^{1''}$ is –OR' or $-N(R^{1'})_2$);

(b) R^2 is hydrogen or CH_3;

(c) R^{3a} and R^{3b} are (i) independently selected from hydrogen, C_{1-10} alkyl, cycloalkyl, $-(CH_2)_c(NR^{3'})_2$, C_{1-6} hydroxyalkyl, $-CH_2SH$, $-(CH_2)_2S(O)_dMe$, $-(CH_2)_3NHC(=NH)NH_2$, (1H-indol-3-yl)methyl, (1H-imidazol-4-yl)methyl, $-(CH_2)_eCOR^{3''}$, aryl and aryl C_{1-3} alkyl, said aryl groups optionally substituted with a group selected from hydroxyl, C_{1-10} alkyl, C_{1-6} alkoxy, halogen, nitro and cyano; (ii) R^{3a} and R^{3b} both are C_{1-6} alkyl; (iii) R^{3a} and R^{3b} together are$(CH_2)_f$ so as to form a spiro ring; (iv) R^{3a} is hydrogen and R^{3b} and R^2 together are $(CH_2)_n$ so as to form a cyclic ring that includes the adjoining N and C atoms (v) R^{3b} is hydrogen and R^{3a} and R^2 together are $(CH_2)_n$ so as to form a cyclic ring that includes the adjoining N and C atoms, where c is 1 to 6, d is 0 to 2, e is 0 to 3, f is 2 to 5, n is 2 to 4, and where $R^{3'}$ is independently hydrogen

Gilead Exhibit 2023
PGR2023-00046 - Page 0089

or C_{1-6} alkyl and $R^{3''}$ is -OR' or –$N(R^{3'})_2$); (vi) R^{3a} is H and R^{3b} is H, CH_3, CH_2CH_3, $CH(CH_3)_2$, $CH_2CH(CH_3)_2$, $CH(CH_3)CH_2CH_3$, CH_2Ph, CH_2-indol-3-yl, -$CH_2CH_2SCH_3$, CH_2CO_2H, $CH_2C(O)NH_2$, CH_2CH_2COOH, $CH_2CH_2C(O)NH_2$, $CH_2CH_2CH_2CH_2NH_2$, -$CH_2CH_2CH_2NHC(NH)NH_2$, CH_2-imidazol-4-yl, CH_2OH, $CH(OH)CH_3$, CH_2((4'-OH)-Ph), CH_2SH, or lower cycloalkyl; or (viii) R^{3a} is CH_3, -CH_2CH_3, $CH(CH_3)_2$, $CH_2CH(CH_3)_2$, $CH(CH_3)CH_2CH_3$, CH_2Ph, CH_2-indol-3-yl, -$CH_2CH_2SCH_3$, CH_2CO_2H, $CH_2C(O)NH_2$, CH_2CH_2COOH, $CH_2CH_2C(O)NH_2$, $CH_2CH_2CH_2CH_2NH_2$, -$CH_2CH_2CH_2NHC(NH)NH_2$, CH_2-imidazol-4-yl, CH_2OH, $CH(OH)CH_3$, CH_2((4'-OH)-Ph), CH_2SH, or lower cycloalkyl and R^{3b} is H, where $R^{3'}$ is independently hydrogen or alkyl, which includes, but is not limited to, C_{1-20} alkyl, C_{1-10} alkyl, or C_{1-6} alkyl, $R^{3''}$ is –OR' or -$N(R^{3'})_2$);

(d) R^4 is hydrogen, C_{1-10} alkyl, C_{1-10} alkyl optionally substituted with a lower alkyl, alkoxy or halogen, C_{1-10} haloalkyl, C_{3-10} cycloalkyl, cycloalkyl alkyl, cycloheteroalkyl, aminoacyl, di(lower alkyl)amino-lower alkyl, aryl, such as phenyl, heteroaryl, such as, pyridinyl, substituted aryl, or substituted heteroaryl;

(e) R^5 is H, a lower alkyl, CN, vinyl, O-(lower alkyl), hydroxyl lower alkyl, i.e., -$(CH_2)_pOH$, where p is 1 -6, including hydroxyl methyl (CH_2OH), CH_2F, N_3, CH_2CN, CH_2NH_2, CH_2NHCH_3, $CH_2N(CH_3)_2$, alkyne (optionally substituted), or halogen, including F, Cl, Br, or I, with the provisos that when X is OH, base is cytosine and R^6 is H, R^5 cannot be N_3 and when X is OH, R^6 is CH_3 or CH_2F and B is a purine base, R^5 cannot be H;

(f) R^6 is H, CH_3, CH_2F, CHF_2, CF_3, F, or CN;

(g) X is H, OH, F, OMe, halogen, NH_2, or N_3;

(h) Y is OH, H, C_{1-4} alkyl, C_{2-4} alkenyl, C_{2-4} alkynyl, vinyl, N_3, CN, Cl, Br, F, I, NO_2, OC(O)O(C_{1-4} alkyl), OC(O)O(C_{2-4} alkynyl), OC(O)O(C_{2-4} alkenyl), OC_{1-10} haloalkyl, O(aminoacyl), O(C_{1-10} acyl), O(C_{1-4} alkyl), O(C_{2-4} alkenyl), S(C_{1-4} acyl), S(C_{1-4} alkyl), S(C_{2-4} alkynyl), S(C_{2-4} alkenyl), SO(C_{1-4} acyl), SO(C_{1-4} alkyl), SO(C_{2-4} alkynyl), SO(C_{2-4} alkenyl), SO_2(C_{1-4} acyl), SO_2(C_{1-4} alkyl), SO_2(C_{2-4} alkynyl), SO_2(C_{2-4} alkenyl),

Gilead Exhibit 2023
PGR2023-00046 - Page 0090

$OS(O)_2(C_{1-4}$ acyl), $OS(O)_2(C_{1-4}$ alkyl), $OS(O)_2(C_{2-4}$ alkenyl), NH_2, $NH(C_{1-4}$ alkyl), $NH(C_{2-4}$ alkenyl), $NH(C_{2-4}$ alkynyl), $NH(C_{1-4}$ acyl), $N(C_{1-4}$ alkyl)$_2$, $N(C_{1-18}$ acyl)$_2$, wherein alkyl, alkynyl, alkenyl and vinyl are optionally substituted by N_3, CN, one to three halogen (Cl, Br, F, I), NO_2, $C(O)O(C_{1-4}$ alkyl), $C(O)O(C_{1-4}$ alkyl), $C(O)O(C_{2-4}$ alkynyl), $C(O)O(C_{2-4}$ alkenyl), $O(C_{1-4}$ acyl), $O(C_{1-4}$ alkyl), $O(C_{2-4}$ alkenyl), $S(C_{1-4}$ acyl), $S(C_{1-4}$ alkyl), $S(C_{2-4}$ alkynyl), $S(C_{2-4}$ alkenyl), $SO(C_{1-4}$ acyl), $SO(C_{1-4}$ alkyl), $SO(C_{2-4}$ alkynyl), $SO(C_{2-4}$ alkenyl), $SO_2(C_{1-4}$ acyl), $SO_2(C_{1-4}$ alkyl), $SO_2(C_{2-4}$ alkynyl), $SO_2(C_{2-4}$ alkenyl), $OS(O)_2(C_{1-4}$ acyl), $OS(O)_2(C_{1-4}$ alkyl), $OS(O)_2(C_{2-4}$ alkenyl), NH_2, $NH(C_{1-4}$ alkyl), $NH(C_{2-4}$ alkenyl), $NH(C_{2-4}$ alkynyl), $NH(C_{1-4}$ acyl), $N(C_{1-4}$ alkyl)$_2$, $N(C_{1-4}$ acyl)$_2$;

(i) R^{10} is H, F, Br, I, OH, OR', NH_2, NHR', NR'$_2$, CO_2R', $CONH_2$, CONHR', CONR'$_2$, CH=CHCO$_2$H, or CH=CHCO$_2$R',

wherein R' is a lower alkyl, a lower cycloalkyl, or C(O)(lower alkyl) or alternatively, in the instance of NR'$_2$, each R' comprise at least one C atom that are joined to form a heterocycle comprising at least two carbon atoms; and

(j) Z is N or CR^{12}; and

R^{12} is H, halogen (including F, Cl, Br, I), OR', NH_2, NHR', NR'$_2$, NO_2, lower alkyl of C_1-C_6, CO_2R', $CONH_2$, CONHR', CONR'$_2$, CH=CHCO$_2$H, or CH=CHCO$_2$R'; with the proviso that when base is represented by the structure c with R^{11} being hydrogen, R^{12} is not a: (i) –C≡C–H, (ii) –C=CH$_2$, or (iii) –NO$_2$.

A seventh aspect of the fourth embodiment is directed to a compound represented by formula **I-8**

wherein

(a) R^1 is hydrogen, methyl, ethyl, *n*-propyl, *i*-propyl, phenyl, p-tolyl, p-bromo-phenyl, p-chloro-phenyl, p-fluorophenyl;

(b) R^2 is hydrogen or CH_3;

Gilead Exhibit 2023
PGR2023-00046 - Page 0091

(c) R^{3a} is H and R^{3b} is H, CH_3, $CH(CH_3)_2$, $CH_2CH(CH_3)_2$, $CH(CH_3)CH_2CH_3$, CH_2Ph, CH_2-indol-3-yl, $-CH_2CH_2SCH_3$, CH_2CO_2H, $CH_2C(O)NH_2$, CH_2CH_2COOH, $CH_2CH_2C(O)NH_2$, $CH_2CH_2CH_2CH_2NH_2$, $-CH_2CH_2CH_2NHC(NH)NH_2$, CH_2-imidazol-4-yl, CH_2OH, $CH(OH)CH_3$, CH_2((4'-OH)-Ph), CH_2SH, or lower cycloalkyl;

(d) R^4 is hydrogen, CH_3, Et, ^{i}Pr, ^{n}Pr, ^{n}Bu, 2-butyl, ^{t}Bu, benzyl, cyclopropyl, cyclobutyl, cyclopentyl, cyclohexyl, N-methyl-aziridin-2-yl, N-methyl-azetidin-3-yl, N-methyl-pyrrolidin-3-yl, N-methyl-pyrrolidin-4-yl, N-methyl-piperidin-4-yl, lower haloalkyl, or di(lower alkyl)amino-lower alkyl;

(e) R^5 is H, CN, CH_3, OCH_3, CH_2OH, CH_2F, halogen, including F, Cl, Br, or I, with the provisos that when X is OH, R^6 is CH_3 or CH_2F, R^5 cannot be H;

(f) R^6 is H, CH_3, CH_2F, CHF_2, CF_3, F, or CN;

(g) X is H, OH, F, OCH_3, halogen, NH_2, or N_3;

(h) Y is OH, H, CH_3, vinyl, NH_2, N_3, CN, Cl, Br, F, I, $OC(O)CH_3$, OCH_3;

(i) R^{10} is H, F, Br, I, OH, OR', NH_2, NHR', NR'$_2$, CO_2R', $CONH_2$, CONHR', CONR'$_2$, $CH=CHCO_2H$, or $CH=CHCO_2$R',

wherein R' is a lower alkyl, a lower cycloalkyl, or C(O)(lower alkyl) or alternatively, in the instance of NR'$_2$, each R' comprise at least one C atom that are joined to form a heterocycle comprising at least two carbon atoms; and

(j) Z is N or CR^{12}; and

R^{12} is an H, halogen (including F, Cl, Br, I), OR', NH_2, NHR', NR'$_2$, NO_2, lower alkyl of C_1-C_6, CO_2R', $CONH_2$, CONHR', CONR'$_2$, $CH=CHCO_2H$, or $CH=CHCO_2$R'; with the proviso that R^{12} is not a: (i) $-C\equiv C-H$, (ii) $-C=CH_2$, or (iii) $-NO_2$.

An eighth aspect of the fourth embodiment is directed to a compound represented by formula **I-8**

wherein

Gilead Exhibit 2023
PGR2023-00046 - Page 0092

(a) R^1 is hydrogen, methyl, ethyl, *n*-propyl, *i*-propyl, phenyl, p-tolyl, p-bromo-phenyl, p-chloro-phenyl, p-fluorophenyl;

(b) R^2 is hydrogen or CH_3;

(c) R^{3a} is H and R^{3b} is H, CH_3, $CH(CH_3)_2$, $CH_2CH(CH_3)_2$, $CH(CH_3)CH_2CH_3$, CH_2Ph, or lower cycloalkyl;

(d) R^4 is hydrogen, CH_3, Et, ^{i}Pr, ^{n}Pr, ^{n}Bu, 2-butyl, ^{t}Bu, benzyl, cyclopropyl, cyclobutyl, cyclopentyl, cyclohexyl, N-methyl-aziridin-2-yl, N-methyl-azetidin-3-yl, N-methyl-pyrrolidin-3-yl, N-methyl-pyrrolidin-4-yl , N-methyl-piperidin-4-yl, lower haloalkyl, or di(lower alkyl)amino-lower alkyl;

(e) R^5 is H, CN, CH_2F, F, Cl, Br, or I, with the provisos that when X is OH, R^6 is CH_3 or CH_2F, R^5 cannot be H;

(f) R^6 is H, CH_3, CH_2F, CHF_2, CF_3, or F;

(g) X is H, OH, F, OCH_3, F, Cl, Br, I, NH_2 or N_3;

(h) Y is H, OH, CH_3, F, Cl, Br, I, NH_2 or N_3, OCH_3, or $OC(O)CH_3$;

(i) R^{10} is H, F, Br, I, OH, OR', NH_2, NHR', NR'$_2$, CO_2R', $CONH_2$, CONHR', CONR'$_2$, $CH{=}CHCO_2H$, or $CH{=}CHCO_2R'$,

wherein R' is a lower alkyl, a lower cycloalkyl, or C(O)(lower alkyl) or alternatively, in the instance of NR'$_2$, each R' comprise at least one C atom that are joined to form a heterocycle comprising at least two carbon atoms; and

(j) Z is N or CR^{12}; and

R^{12} is an H, halogen (including F, Cl, Br, I), OR', NH_2, NHR', NR'$_2$, NO_2, lower alkyl of C_1-C_6, CO_2R', $CONH_2$, CONHR', CONR'$_2$, $CH{=}CHCO_2H$, or $CH{=}CHCO_2R'$; with the proviso that R^{12} is not a: (i) $-C{\equiv}C-H$, (ii) $-C{=}CH_2$, or (iii) $-NO_2$.

A ninth aspect of the fourth embodiment is directed to a compound represented by

Gilead Exhibit 2023
PGR2023-00046 - Page 0093

formula **I-8**

wherein

(a) R^1 is hydrogen, methyl, ethyl, *n*-propyl, *i*-propyl, phenyl, p-tolyl, p-bromo-phenyl, p-chloro-phenyl, p-fluorophenyl;

(b) R^2 is hydrogen;

(c) R^{3a} is H and R^{3b} is H, CH_3, $CH(CH_3)_2$, $CH_2CH(CH_3)_2$, $CH(CH_3)CH_2CH_3$, CH_2Ph, or lower cycloalkyl;

(d) R^4 is hydrogen, CH_3, Et, ^{i}Pr, ^{n}Pr, ^{n}Bu, 2-butyl, ^{t}Bu, benzyl, cyclopropyl, cyclobutyl, cyclopentyl, cyclohexyl, N-methyl-aziridin-2-yl, N-methyl-azetidin-3-yl, N-methyl-pyrrolidin-3-yl, N-methyl-pyrrolidin-4-yl, N-methyl-piperidin-4-yl, lower haloalkyl, or di(lower alkyl)amino-lower alkyl;

(e) R^5 is H, with the provisos that when X is OH, R^6 is CH_3 or CH_2F, R^5 cannot be H;

(f) R^6 is H, CH_3, CH_2F, CHF_2, CF_3, or F;

(g) X is H, OH, OCH_3, F, NH_2 or N_3;

(h) Y is OH, NH_2, OCH_3, or $OC(O)CH_3$;

(i) R^{10} is H, F, Br, I, OH, OR', NH_2, NHR', NR'$_2$, CO_2R', $CONH_2$, CONHR', CONR'$_2$, CH=CHCO$_2$H, or CH=CHCO$_2$R',

wherein R' is a lower alkyl, a lower cycloalkyl, or C(O)(lower alkyl) or alternatively, in the instance of NR'$_2$, each R' comprise at least one C atom that are joined to form a heterocycle comprising at least two carbon atoms; and

(j) Z is N or CR^{12}; and

Gilead Exhibit 2023
PGR2023-00046 - Page 0094

R^{12} is an H, halogen (including F, Cl, Br, I), OR', NH_2, NHR', NR'$_2$, NO_2, lower alkyl of C_1-C_6, CO_2R', $CONH_2$, CONHR', CONR'$_2$, CH=$CHCO_2H$, or CH=$CHCO_2R'$; with the proviso that R^{12} is not a: (i) –C≡C–H, (ii) –C=CH_2, or (iii) –NO_2.

A tenth aspect of the fourth embodiment is directed to a compound represented by formula **I-8**

wherein

(a) R^1 is hydrogen, methyl, phenyl, p-bromo-phenyl, p-chloro-phenyl, p-fluorophenyl;

(b) R^2 is hydrogen;

(c) R^{3a} is H and R^{3b} is H, CH_3, $CH(CH_3)_2$, $CH_2CH(CH_3)_2$, $CH(CH_3)CH_2CH_3$, CH_2Ph, or lower cycloalkyl;

(d) R^4 is hydrogen, CH_3, Et, ^{i}Pr, ^{n}Pr, ^{n}Bu, 2-butyl, ^{t}Bu, benzyl, cyclopropyl, cyclobutyl, cyclopentyl, cyclohexyl, N-methyl-aziridin-2-yl, N-methyl-azetidin-3-yl, N-methyl-pyrrolidin-3-yl, N-methyl-pyrrolidin-4-yl, N-methyl-piperidin-4-yl, lower haloalkyl, or di(lower alkyl)amino-lower alkyl;

(e) R^5 is H, with the provisos that when X is OH, R^6 is CH_3 or CH_2F, R^5 cannot be H;

(f) R^6 is H, CH_3, CH_2F, CHF_2, CF_3, or F;

(g) X is H, OH, OCH_3, F, NH_2 or N_3;

(h) Y is OH, NH_2, OCH_3, or $OC(O)CH_3$;

(i) R^{10} is H, F, Br, I, OH, OR', NH_2, NHR', NR'$_2$, CO_2R', $CONH_2$, CONHR', CONR'$_2$, CH=$CHCO_2H$, or CH=$CHCO_2R'$,

Gilead Exhibit 2023
PGR2023-00046 - Page 0095

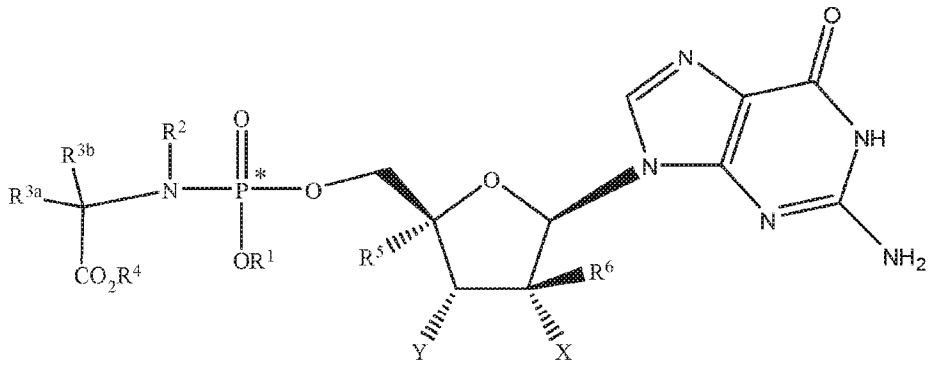
wherein R' is a lower alkyl, a lower cycloalkyl, or C(O)(lower alkyl) or alternatively, in the instance of NR'_2, each R' comprise at least one C atom that are joined to form a heterocycle comprising at least two carbon atoms; and

(j) Z is N or CR^{12}; and

R^{12} is an H, halogen (including F, Cl, Br, I), OR', NH_2, NHR', NR'_2, NO_2, lower alkyl of C_1-C_6, CO_2R', $CONH_2$, CONHR', $CONR'_2$, $CH=CHCO_2H$, or $CH=CHCO_2R'$; with the proviso that R^{12} is not a: (i) $-C\equiv C-H$, (ii) $-C=CH_2$, or (iii) $-NO_2$.

A fifth embodiment of the invention is directed to a compound represented by formula **I** in which the base is a structure represented by formula **d** above, wherein R^1, R^2, R^{3a}, R^{3b}, R^4, R^5, R^6, X, and Y are defined in the Summary of the Invention section above.

The first aspect of the fifth embodiment is directed to a compound represented by formula **I-9**



I-9

wherein

(a) R^1 is hydrogen, n-alkyl; branched alkyl; cycloalkyl; or aryl, which includes, but is not limited to, phenyl or naphthyl, where phenyl or naphthyl are optionally substituted with at least one of C_{1-6} alkyl, C_{2-6} alkenyl, C_{2-6} alkynyl, C_{1-6} alkoxy, F, Cl, Br, I, nitro, cyano, C_{1-6} haloalkyl, $-N(R^{1'})_2$, C_{1-6} acylamino, $-NHSO_2C_{1-6}$

Gilead Exhibit 2023
PGR2023-00046 - Page 0096

alkyl, -$SO_2N(R^{1'})_2$, $COR^{1"}$, and -SO_2C_{1-6} alkyl; ($R^{1'}$ is independently hydrogen or alkyl, which includes, but is not limited to, C_{1-20} alkyl, C_{1-10} alkyl, or C_{1-6} alkyl, $R^{1"}$ is –OR' or -$N(R^{1'})_2$);

(b) R^2 is hydrogen or CH_3;

(c) R^{3a} and R^{3b} are (i) independently selected from hydrogen, C_{1-10} alkyl, cycloalkyl, -$(CH_2)_c(NR^{3'})_2$, C_{1-6} hydroxyalkyl, -CH_2SH, -$(CH_2)_2S(O)_dMe$, -$(CH_2)_3NHC(=NH)NH_2$, (1H-indol-3-yl)methyl, (1H-imidazol-4-yl)methyl, -$(CH_2)_eCOR^{3"}$, aryl and aryl C_{1-3} alkyl, said aryl groups optionally substituted with a group selected from hydroxyl, C_{1-10} alkyl, C_{1-6} alkoxy, halogen, nitro and cyano; (ii) R^{3a} and R^{3b} both are C_{1-6} alkyl; (iii) R^{3a} and R^{3b} together are$(CH_2)_f$ so as to form a spiro ring; (iv) R^{3a} is hydrogen and R^{3b} and R^2 together are $(CH_2)_n$ so as to form a cyclic ring that includes the adjoining N and C atoms (v) R^{3b} is hydrogen and R^{3a} and R^2 together are $(CH_2)_n$ so as to form a cyclic ring that includes the adjoining N and C atoms, where c is 1 to 6, d is 0 to 2, e is 0 to 3, f is 2 to 5, n is 2 to 4, and where $R^{3'}$ is independently hydrogen or C_{1-6} alkyl and $R^{3"}$ is -OR' or –$N(R^{3'})_2$); (vi) R^{3a} is H and R^{3b} is H, CH_3, CH_2CH_3, $CH(CH_3)_2$, $CH_2CH(CH_3)_2$, $CH(CH_3)CH_2CH_3$, CH_2Ph, CH_2-indol-3-yl, -$CH_2CH_2SCH_3$, CH_2CO_2H, $CH_2C(O)NH_2$, CH_2CH_2COOH, $CH_2CH_2C(O)NH_2$, $CH_2CH_2CH_2CH_2NH_2$, -$CH_2CH_2CH_2NHC(NH)NH_2$, CH_2-imidazol-4-yl, CH_2OH, $CH(OH)CH_3$, CH_2((4'-OH)-Ph), CH_2SH, or lower cycloalkyl; or (viii) R^{3a} is CH_3, -CH_2CH_3, $CH(CH_3)_2$, $CH_2CH(CH_3)_2$, $CH(CH_3)CH_2CH_3$, CH_2Ph, CH_2-indol-3-yl, -$CH_2CH_2SCH_3$, CH_2CO_2H, $CH_2C(O)NH_2$, CH_2CH_2COOH, $CH_2CH_2C(O)NH_2$, $CH_2CH_2CH_2CH_2NH_2$, -$CH_2CH_2CH_2NHC(NH)NH_2$, CH_2-imidazol-4-yl, CH_2OH, $CH(OH)CH_3$, CH_2((4'-OH)-Ph), CH_2SH, or lower cycloalkyl and R^{3b} is H, where $R^{3'}$ is independently hydrogen or alkyl, which includes, but is not limited to, C_{1-20} alkyl, C_{1-10} alkyl, or C_{1-6} alkyl, $R^{3"}$ is –OR' or -$N(R^{3'})_2$);

(d) R^4 is hydrogen, C_{1-10} alkyl, C_{1-10} alkyl optionally substituted with a lower alkyl, alkoxy or halogen, C_{1-10} haloalkyl, C_{3-10} cycloalkyl, cycloalkyl alkyl, cycloheteroalkyl, aminoacyl, di(lower alkyl)amino-lower alkyl, aryl, such as phenyl, heteroaryl, such as, pyridinyl, substituted aryl, or substituted heteroaryl;

Gilead Exhibit 2023
PGR2023-00046 - Page 0097

(e) R^5 is H, a lower alkyl, CN, vinyl, O-(lower alkyl), hydroxyl lower alkyl, i.e., -$(CH_2)_pOH$, where p is 1 -6, including hydroxyl methyl (CH_2OH), CH_2F, N_3, CH_2CN, CH_2NH_2, CH_2NHCH_3, $CH_2N(CH_3)_2$, alkyne (optionally substituted), or halogen, including F, Cl, Br, or I, with the provisos that when X is OH, base is cytosine and R^6 is H, R^5 cannot be N_3 and when X is OH, R^6 is CH_3 or CH_2F and B is a purine base, R^5 cannot be H;

(f) R^6 is H, CH_3, CH_2F, CHF_2, CF_3, F, or CN;

(g) X is H, OH, F, OMe, halogen, NH_2, or N_3;

(h) Y is OH, H, C_{1-4} alkyl, C_{2-4} alkenyl, C_{2-4} alkynyl, vinyl, N_3, CN, Cl, Br, F, I, NO_2, $OC(O)O(C_{1-4}$ alkyl), $OC(O)O(C_{1-4}$ alkyl), $OC(O)O(C_{2-4}$ alkynyl), $OC(O)O(C_{2-4}$ alkenyl), OC_{1-10} haloalkyl, O(aminoacyl), $O(C_{1-10}$ acyl), $O(C_{1-4}$ alkyl), $O(C_{2-4}$ alkenyl), $S(C_{1-4}$ acyl), $S(C_{1-4}$ alkyl), $S(C_{2-4}$ alkynyl), $S(C_{2-4}$ alkenyl), $SO(C_{1-4}$ acyl), $SO(C_{1-4}$ alkyl), $SO(C_{2-4}$ alkynyl), $SO(C_{2-4}$ alkenyl), $SO_2(C_{1-4}$ acyl), $SO_2(C_{1-4}$ alkyl), $SO_2(C_{2-4}$ alkynyl), $SO_2(C_{2-4}$ alkenyl), $OS(O)_2(C_{1-4}$ acyl), $OS(O)_2(C_{1-4}$ alkyl), $OS(O)_2(C_{2-4}$ alkenyl), NH_2, $NH(C_{1-4}$ alkyl), $NH(C_{2-4}$ alkenyl), $NH(C_{2-4}$ alkynyl), $NH(C_{1-4}$ acyl), $N(C_{1-4}$ alkyl)$_2$, $N(C_{1-18}$ acyl)$_2$, wherein alkyl, alkynyl, alkenyl and vinyl are optionally substituted by N_3, CN, one to three halogen (Cl, Br, F, I), NO_2, $C(O)O(C_{1-4}$ alkyl), $C(O)O(C_{1-4}$ alkyl), $C(O)O(C_{2-4}$ alkynyl), $C(O)O(C_{2-4}$ alkenyl), $O(C_{1-4}$ acyl), $O(C_{1-4}$ alkyl), $O(C_{2-4}$ alkenyl), $S(C_{1-4}$ acyl), $S(C_{1-4}$ alkyl), $S(C_{2-4}$ alkynyl), $S(C_{2-4}$ alkenyl), $SO(C_{1-4}$ acyl), $SO(C_{1-4}$ alkyl), $SO(C_{2-4}$ alkynyl), $SO(C_{2-4}$ alkenyl), $SO_2(C_{1-4}$ acyl), $SO_2(C_{1-4}$ alkyl), $SO_2(C_{2-4}$ alkynyl), $SO_2(C_{2-4}$ alkenyl), $OS(O)_2(C_{1-4}$ acyl), $OS(O)_2(C_{1-4}$ alkyl), $OS(O)_2(C_{2-4}$ alkenyl), NH_2, $NH(C_{1-4}$ alkyl), $NH(C_{2-4}$ alkenyl), $NH(C_{2-4}$ alkynyl), $NH(C_{1-4}$ acyl), $N(C_{1-4}$ alkyl)$_2$, $N(C_{1-4}$ acyl)$_2$.

A second aspect of the fifth embodiment is directed to a compound represented by formula **I-9**

wherein

(a) R^1 is hydrogen, methyl, ethyl, *n*-propyl, *i*-propyl, phenyl, p-tolyl, p-bromo-phenyl, p-chloro-phenyl, p-fluorophenyl;

Gilead Exhibit 2023
PGR2023-00046 - Page 0098

(b) R^2 is hydrogen or CH_3;

(c) R^{3a} is H and R^{3b} is H, CH_3, $CH(CH_3)_2$, $CH_2CH(CH_3)_2$, $CH(CH_3)CH_2CH_3$, CH_2Ph, CH_2-indol-3-yl, $-CH_2CH_2SCH_3$, CH_2CO_2H, $CH_2C(O)NH_2$, CH_2CH_2COOH, $CH_2CH_2C(O)NH_2$, $CH_2CH_2CH_2CH_2NH_2$, $-CH_2CH_2CH_2NHC(NH)NH_2$, CH_2-imidazol-4-yl, CH_2OH, $CH(OH)CH_3$, CH_2((4'-OH)-Ph), CH_2SH, or lower cycloalkyl;

(d) R^4 is hydrogen, CH_3, Et, ^{i}Pr, ^{n}Pr, ^{n}Bu, 2-butyl, ^{t}Bu, benzyl, cyclopropyl, cyclobutyl, cyclopentyl, cyclohexyl, N-methyl-aziridin-2-yl, N-methyl-azetidin-3-yl, N-methyl-pyrrolidin-3-yl, N-methyl-pyrrolidin-4-yl, N-methyl-piperidin-4-yl, lower haloalkyl, or di(lower alkyl)amino-lower alkyl;

(e) R^5 is H, CN, CH_3, OCH_3, CH_2OH, CH_2F, halogen, including F, Cl, Br, or I, with the provisos that when X is OH, R^6 is CH_3 or CH_2F, R^5 cannot be H.

(f) R^6 is H, CH_3, CH_2F, CHF_2, CF_3, F, or CN;

(g) X is H, OH, F, OCH_3, halogen, NH_2, or N_3;

(h) Y is OH, H, CH_3, vinyl, NH_2, N_3, CN, Cl, Br, F, I, $OC(O)CH_3$, OCH_3;

A third aspect of the fifth embodiment is directed to a compound represented by formula **I-9**

wherein

(a) R^1 is hydrogen, methyl, ethyl, *n*-propyl, *i*-propyl, phenyl, p-tolyl, p-bromo-phenyl, p-chloro-phenyl, p-fluorophenyl;

(b) R^2 is hydrogen or CH_3;

(c) R^{3a} is H and R^{3b} is H, CH_3, $CH(CH_3)_2$, $CH_2CH(CH_3)_2$, $CH(CH_3)CH_2CH_3$, CH_2Ph, or lower cycloalkyl;

(d) R^4 is hydrogen, CH_3, Et, ^{i}Pr, ^{n}Pr, ^{n}Bu, 2-butyl, ^{t}Bu, benzyl, cyclopropyl, cyclobutyl, cyclopentyl, cyclohexyl, N-methyl-aziridin-2-yl, N-methyl-azetidin-3-yl, N-

Gilead Exhibit 2023
PGR2023-00046 - Page 0099

methyl-pyrrolidin-3-yl, N-methyl-pyrrolidin-4-yl, N-methyl-piperidin-4-yl, lower haloalkyl, or di(lower alkyl)amino-lower alkyl;

(e) R^5 is H, CN, CH_2F, F, Cl, Br, or I; with the proviso that X is OH, R^6 is CH_3 or CH_2F, R^5 cannot be H;

(f) R^6 is H, CH_3, CH_2F, CHF_2, CF_3, or F;

(g) X is H, OH, F, OCH_3, F, Cl, Br, I, NH_2 or N_3;

(h) Y is H, OH, CH_3, F, Cl, Br, I, NH_2 N_3, OCH_3, or $OC(O)CH_3$;

A fourth aspect of the fifth embodiment is directed to a compound represented by formula **I-9**

wherein

(a) R^1 is hydrogen, methyl, ethyl, *n*-propyl, *i*-propyl, phenyl, p-tolyl, p-bromo-phenyl, p-chloro-phenyl, p-fluorophenyl;

(b) R^2 is hydrogen;

(c) R^{3a} is H and R^{3b} is H, CH_3, $CH(CH_3)_2$, $CH_2CH(CH_3)_2$, $CH(CH_3)CH_2CH_3$, CH_2Ph, or lower cycloalkyl;

(d) R^4 is hydrogen, CH_3, Et, ^{i}Pr, ^{n}Pr, ^{n}Bu, 2-butyl, ^{t}Bu, benzyl, cyclopropyl, cyclobutyl, cyclopentyl, cyclohexyl, N-methyl-aziridin-2-yl, N-methyl-azetidin-3-yl, N-methyl-pyrrolidin-3-yl, N-methyl-pyrrolidin-4-yl, N-methyl-piperidin-4-yl, lower haloalkyl, or di(lower alkyl)amino-lower alkyl;

(e) R^5 is H, with the provisos that when X is OH, R^6 is CH_3 or CH_2F, R^5 cannot be H;

(f) R^6 is H, CH_3, CH_2F, CHF_2, CF_3, or F;

(g) X is H, OH, OCH_3, F, NH_2 or N_3;

Gilead Exhibit 2023
PGR2023-00046 - Page 00100

(h) Y is OH, NH_2, OCH_3, or $OC(O)CH_3$;

A fifth aspect of the fifth embodiment is directed to a compound represented by formula **I-9**

wherein

(a) R^1 is hydrogen, methyl, phenyl, p-bromo-phenyl, p-chloro-phenyl, p-fluorophenyl;

(b) R^2 is hydrogen;

(c) R^{3a} is H and R^{3b} is H, CH_3, $CH(CH_3)_2$, $CH_2CH(CH_3)_2$, $CH(CH_3)CH_2CH_3$, CH_2Ph, or lower cycloalkyl;

(d) R^4 is hydrogen, CH_3, Et, ^{i}Pr, ^{n}Pr, ^{n}Bu, 2-butyl, ^{t}Bu, benzyl, cyclopropyl, cyclobutyl, cyclopentyl, cyclohexyl, N-methyl-aziridin-2-yl, N-methyl-azetidin-3-yl, N-methyl-pyrrolidin-3-yl, N-methyl-pyrrolidin-4-yl, N-methyl-piperidin-4-yl, lower haloalkyl, or di(lower alkyl)amino-lower alkyl;

(e) R^5 is H, with the provisos that when X is OH, R^6 is CH_3 or CH_2F, R^5 cannot be H;

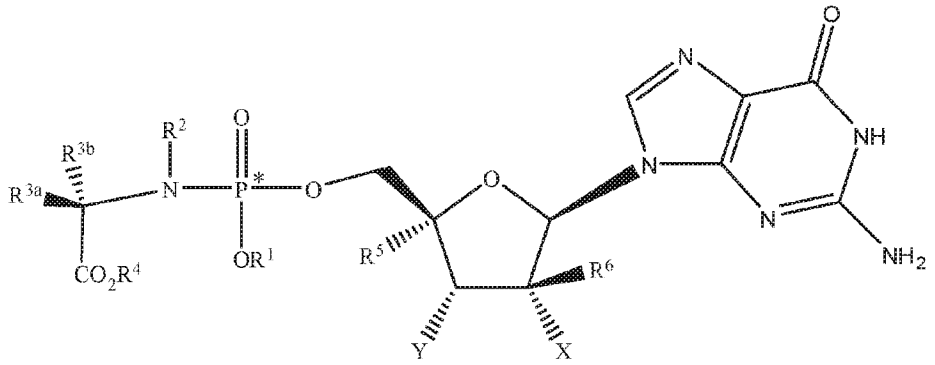
(f) R^6 is H, CH_3, CH_2F, CHF_2, CF_3, or F;

(g) X is H, OH, OCH_3, F, NH_2 or N_3;

(h) Y is OH, NH_2, OCH_3, or $OC(O)CH_3$;

A sixth aspect of the fifth embodiment is directed to a compound represented by formula **I-10**

Gilead Exhibit 2023
PGR2023-00046 - Page 00101



I-10

wherein

(a) R^1 is hydrogen, methyl, ethyl, *n*-propyl, *i*-propyl, or a substituted or unsubstituted phenyl, where the substitutent of the substituted phenyl is at least one of a CH_3, OCH_3, F, Cl, Br, I, nitro, cyano, and a $CH_{3-q}X_q$, where X is F, Cl, Br, or I, and q is 1-3;

(b) R^2 is hydrogen or CH_3;

(c) R^{3a} is H and R^{3b} is H, CH_3, $CH(CH_3)_2$, $CH_2CH(CH_3)_2$, $CH(CH_3)CH_2CH_3$, CH_2Ph, CH_2-indol-3-yl, $-CH_2CH_2SCH_3$, CH_2CO_2H, $CH_2C(O)NH_2$, CH_2CH_2COOH, $CH_2CH_2C(O)NH_2$, $CH_2CH_2CH_2CH_2NH_2$, $-CH_2CH_2CH_2NHC(NH)NH_2$, CH_2-imidazol-4-yl, CH_2OH, $CH(OH)CH_3$, CH_2((4'-OH)-Ph), CH_2SH, or lower cycloalkyl or R^{3a} is CH_3, $CH(CH_3)_2$, $CH_2CH(CH_3)_2$, $CH(CH_3)CH_2CH_3$, CH_2Ph, CH_2-indol-3-yl, $-CH_2CH_2SCH_3$, CH_2CO_2H, $CH_2C(O)NH_2$, CH_2CH_2COOH, $CH_2CH_2C(O)NH_2$, $CH_2CH_2CH_2CH_2NH_2$, $-CH_2CH_2CH_2NHC(NH)NH_2$, CH_2-imidazol-4-yl, CH_2OH, $CH(OH)CH_3$, CH_2((4'-OH)-Ph), CH_2SH, or lower cycloalkyl and R^{3b} is H;

(d) R^4 is hydrogen, CH_3, Et, ^{i}Pr, ^{n}Pr, ^{n}Bu, 2-butyl, ^{t}Bu, benzyl, cyclopropyl, cyclobutyl, cyclopentyl, cyclohexyl, N-methyl-aziridin-2-yl, N-methyl-azetidin-3-yl, N-methyl-pyrrolidin-3-yl, N-methyl-pyrrolidin-4-yl, N-methyl-piperidin-4-yl, lower haloalkyl, or di(lower alkyl)amino-lower alkyl;

Gilead Exhibit 2023
PGR2023-00046 - Page 00102

(e) R^5 is H, CN, CH_3, OCH_3, CH_2OH, CH_2F, N_3, CH_2CN, CH_2N_3, CH_2NH_2, CH_2NHCH_3, $CH_2N(CH_3)_2$, halogen, including F, Cl, Br, or I, with the provisos that when X is OH, R^6 is CH_3 or CH_2F, R^5 cannot be H;

(f) R^6 is H, CH_3, CH_2F, CHF_2, CF_3, F, or CN;

(g) X is H, OH, F, OCH_3, Cl, Br, I, NH_2, or N_3;

(h) Y is OH, H, CH_3, vinyl, N_3, CN, Cl, Br, F, I, $OC(O)CH_3$, OCH_3, NH_2, $NHCH_3$, NH(vinyl), NH(acetyl), $NH(C(O)CH_3)$, $N(CH_3)_2$, $N(C(O)CH_3)_2$;

A seventh aspect of the fifth embodiment is directed to a compound represented by formula **I-10**

wherein

(a) R^1 is hydrogen, methyl, ethyl, *n*-propyl, *i*-propyl, phenyl, p-tolyl, p-bromo-phenyl, p-chloro-phenyl, p-fluorophenyl;

(b) R^2 is hydrogen or CH_3;

(c) R^{3a} is H and R^{3b} is H, CH_3, $CH(CH_3)_2$, $CH_2CH(CH_3)_2$, $CH(CH_3)CH_2CH_3$, CH_2Ph, CH_2-indol-3-yl, $-CH_2CH_2SCH_3$, CH_2CO_2H, $CH_2C(O)NH_2$, CH_2CH_2COOH, $CH_2CH_2C(O)NH_2$, $CH_2CH_2CH_2CH_2NH_2$, $-CH_2CH_2CH_2NHC(NH)NH_2$, CH_2-imidazol-4-yl, CH_2OH, $CH(OH)CH_3$, CH_2((4'-OH)-Ph), CH_2SH, or lower cycloalkyl;

(d) R^4 is hydrogen, CH_3, Et, ^{i}Pr, ^{n}Pr, ^{n}Bu, 2-butyl, ^{t}Bu, benzyl, cyclopropyl, cyclobutyl, cyclopentyl, cyclohexyl, N-methyl-aziridin-2-yl, N-methyl-azetidin-3-yl, N-methyl-pyrrolidin-3-yl, N-methyl-pyrrolidin-4-yl, N-methyl-piperidin-4-yl, lower haloalkyl, or di(lower alkyl)amino-lower alkyl;

(e) R^5 is H, CN, CH_3, OCH_3, CH_2OH, CH_2F, halogen, including F, Cl, Br, or I, with the provisos that when X is OH, R^6 is CH_3 or CH_2F, R^5 cannot be H;

(f) R^6 is H, CH_3, CH_2F, CHF_2, CF_3, F, or CN;

Gilead Exhibit 2023
PGR2023-00046 - Page 00103

(g) X is H, OH, F, OCH_3, Cl, Br, I, NH_2, or N_3; and

(h) Y is OH, H, CH_3, vinyl, NH_2, N_3, CN, Cl, Br, F, I, $OC(O)CH_3$, OCH_3.

An eighth aspect of the fifth embodiment is directed to a compound represented by formula **I-10**

wherein

(a) R^1 is hydrogen, methyl, ethyl, *n*-propyl, *i*-propyl, phenyl, p-tolyl, p-bromo-phenyl, p-chloro-phenyl, p-fluorophenyl;

(b) R^2 is hydrogen or CH_3;

(c) R^{3a} is H and R^{3b} is H, CH_3, $CH(CH_3)_2$, $CH_2CH(CH_3)_2$, $CH(CH_3)CH_2CH_3$, CH_2Ph, or lower cycloalkyl;

(d) R^4 is hydrogen, CH_3, Et, ^{i}Pr, ^{n}Pr, ^{n}Bu, 2-butyl, ^{t}Bu, benzyl, cyclopropyl, cyclobutyl, cyclopentyl, cyclohexyl, N-methyl-aziridin-2-yl, N-methyl-azetidin-3-yl, N-methyl-pyrrolidin-3-yl, N-methyl-pyrrolidin-4-yl, N-methyl-piperidin-4-yl, lower haloalkyl, or di(lower alkyl)amino-lower alkyl;

(e) R^5 is H, CN, CH_2F, F, Cl, Br, or I, with the provisos that when X is OH, R^6 is CH_3 or CH_2F, R^5 cannot be H;

(f) R^6 is H, CH_3, CH_2F, CHF_2, CF_3, or F;

(g) X is H, OH, F, OCH_3, F, Cl, Br, I, NH_2 or N_3;

(h) Y is H, OH, CH_3, F, Cl, Br, I, NH_2 or N_3, OCH_3, or $OC(O)CH_3$;

A ninth aspect of the fifth embodiment is directed to a compound represented by formula **I-10**

wherein

Gilead Exhibit 2023
PGR2023-00046 - Page 00104

(a) R^1 is hydrogen, methyl, ethyl, *n*-propyl, *i*-propyl, phenyl, p-tolyl, p-bromo-phenyl, p-chloro-phenyl, p-fluorophenyl;

(b) R^2 is hydrogen;

(c) R^{3a} is H and R^{3b} is H, CH_3, $CH(CH_3)_2$, $CH_2CH(CH_3)_2$, $CH(CH_3)CH_2CH_3$, CH_2Ph, or lower cycloalkyl;

(d) R^4 is hydrogen, CH_3, Et, ^{i}Pr, ^{n}Pr, ^{n}Bu, 2-butyl, ^{t}Bu, benzyl, cyclopropyl, cyclobutyl, cyclopentyl, cyclohexyl, N-methyl-aziridin-2-yl, N-methyl-azetidin-3-yl, N-methyl-pyrrolidin-3-yl, N-methyl-pyrrolidin-4-yl, N-methyl-piperidin-4-yl, lower haloalkyl, or di(lower alkyl)amino-lower alkyl;

(e) R^5 is H, with the provisos that when X is OH, R^6 is CH_3 or CH_2F, R^5 cannot be H;

(f) R^6 is H, CH_3, CH_2F, CHF_2, CF_3, or F;

(g) X is H, OH, OCH_3, F, NH_2 or N_3;

(h) Y is OH, NH_2, OCH_3, or $OC(O)CH_3$;

A tenth aspect of the fifth embodiment is directed to a compound represented by formula **I-10**

wherein

(a) R^1 is hydrogen, methyl, phenyl, p-bromo-phenyl, p-chloro-phenyl, p-fluorophenyl;

(b) R^2 is hydrogen;

(c) R^{3a} is H and R^{3b} is H, CH_3, $CH(CH_3)_2$, $CH_2CH(CH_3)_2$, $CH(CH_3)CH_2CH_3$, CH_2Ph, or lower cycloalkyl;

(d) R^4 is hydrogen, CH_3, Et, ^{i}Pr, ^{n}Pr, ^{n}Bu, 2-butyl, ^{t}Bu, benzyl, cyclopropyl, cyclobutyl, cyclopentyl, cyclohexyl, N-methyl-aziridin-2-yl, N-methyl-azetidin-3-yl, N-

Gilead Exhibit 2023
PGR2023-00046 - Page 00105

methyl-pyrrolidin-3-yl, N-methyl-pyrrolidin-4-yl, N-methyl-piperidin-4-yl, lower haloalkyl, or di(lower alkyl)amino-lower alkyl;

(e) R^5 is H, with the provisos that when X is OH, R^6 is CH_3 or CH_2F, R^5 cannot be H;

(f) R^6 is H, CH_3, CH_2F, CHF_2, CF_3, or F;

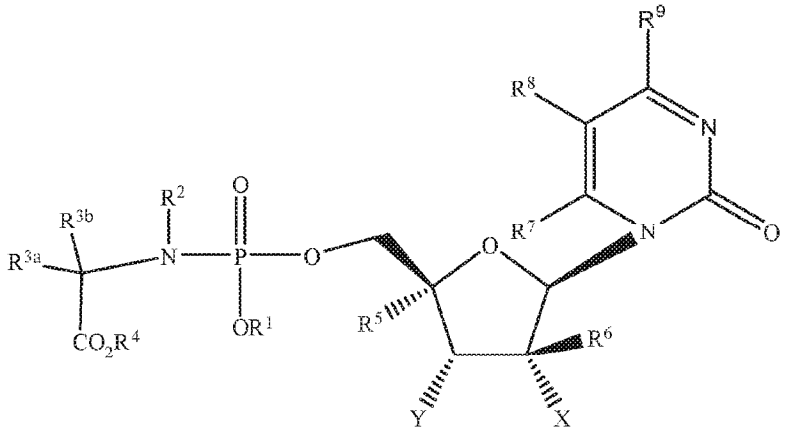
(g) X is H, OH, OCH_3, F, NH_2 or N_3;

(h) Y is OH, NH_2, OCH_3, or $OC(O)CH_3$.

The following tables contain numeric identifiers associated with various substituent designators that should be viewed in light of the accompanying structure. These structures are contemplated species of the various aspects of the disclosed embodiments and are not intended to be limiting on full breadth of the contemplated compound represented by the structure of formula **I**. However, it is contemplated that any one of the exemplified nucleoside bases can be used in combination with any one of contemplated species that specify a particular combination of R^1, R^2, R^{3a}, R^{3b}, R^4, R^5, R^6, X, and Y. In each of the presented tables, the phosphoramidate substituent containing the substituents R^{3a} and R^{3b} are depicted without reference to stereochemical structure (*cf.* structures **I-1**, **I-3**, **I-5**, **I-7**, and **I-9** above). It is contemplated that the compounds recited below embody compounds in which R^{3a} projects toward the viewer while R^{3b} projects away from the viewer (cf. structures **I-2**, **I-4**, **I-6**, **I-8**, and **I-10**). Moreover, it is contemplated that the compounds recited below also embody compounds in which R^{3a} projects away from the viewer while R^{3b} projects towards the viewer. Not meant to be limiting, however, it is contemplated that preferred compounds are those in which R^{3a} projects towards the viewer and R^{3b} projects away from the viewer such that the natural L-amino acid (S)-configuration is presented. Additionally, the inventors recognize that the phosphorus atom of the phosphoramidate moiety is another source of chirality. Although the structures below do not specifically depict chirality at phosphorus, the inventors recognize that stereochemical configurations are possible such that in a staggered (or zig-zag) line structure the oxo-substitutent projects towards the viewer

Gilead Exhibit 2023
PGR2023-00046 - Page 00106

while the OR^1 substitutent projects away from the viewer, and vice versa, i.e., where the Cahn-Ingold-Prelog stereochemical designation of phosphorous is either R or S. Therefore, the structures below include all possible stereochemical configurations possible for phosphorus.



II

Table II-1.

№	R^1	R^2	R^{3a}	R^{3b}	R^4	R^5	R^6	X	Y	R^7	R^8	R^9
II-1-1	CH_3	H	H	H	CH_3	H	CH_3	OH	OH	H	H	NH_2
II-1-2	CH_3	H	H	CH_3	CH_3	H	CH_3	OH	OH	H	H	NH_2
II-1-3	CH_3	H	H	$CH(CH_3)_2$	CH_3	H	CH_3	OH	OH	H	H	NH_2
II-1-4	CH_3	H	H	$CH_2CH(CH_3)_2$	CH_3	H	CH_3	OH	OH	H	H	NH_2
II-1-5	CH_3	H	H	CH_2Ph	CH_3	H	CH_3	OH	OH	H	H	NH_2
II-1-6	CH_3	H	H	CH_2-indol-3-yl	CH_3	H	CH_3	OH	OH	H	H	NH_2
II-1-7	CH_3	H	H	$CH_2CH_2SCH_3$	CH_3	H	CH_3	OH	OH	H	H	NH_2
II-1-8	CH_3	*	H	*	CH_3	H	CH_3	OH	OH	H	H	NH_2

*R^2 and R^{3b} joined together by $(CH_2)_3$ to form five-membered ring.

Table II-2.

№	R^1	R^2	R^{3a}	R^{3b}	R^4	R^5	R^6	X	Y	R^7	R^8	R^9
II-2-1	Et	H	H	H	CH_3	H	CH_3	OH	OH	H	H	NH_2
II-2-2	Et	H	H	CH_3	CH_3	H	CH_3	OH	OH	H	H	NH_2
II-2-3	Et	H	H	$CH(CH_3)_2$	CH_3	H	CH_3	OH	OH	H	H	NH_2
II-2-4	Et	H	H	$CH_2CH(CH_3)_2$	CH_3	H	CH_3	OH	OH	H	H	NH_2

Gilead Exhibit 2023
PGR2023-00046 - Page 00107

№	R^1	R^2	R^{3a}	R^{3b}	R^4	R^5	R^6	X	Y	R^7	R^8	R^9
II-2-5	Et	H	H	CH_2Ph	CH_3	H	CH_3	OH	OH	H	H	NH_2
II-2-6	Et	H	H	CH_2-indol-3-yl	CH_3	H	CH_3	OH	OH	H	H	NH_2
II-2-7	Et	H	H	$CH_2CH_2SCH_3$	CH_3	H	CH_3	OH	OH	H	H	NH_2
II-2-8	Et	*	H	*	CH_3	H	CH_3	OH	OH	H	H	NH_2

*R^2 and R^{3b} joined together by $(CH_2)_3$ to form five-membered ring.

Table II-3.

№	R^1	R^2	R^{3a}	R^{3b}	R^4	R^5	R^6	X	Y	R^7	R^8	R^9
II-3-1	^{i}Pr	H	H	H	CH_3	H	CH_3	OH	OH	H	H	NH_2
II-3-2	^{i}Pr	H	H	CH_3	CH_3	H	CH_3	OH	OH	H	H	NH_2
II-3-3	^{i}Pr	H	H	$CH(CH_3)_2$	CH_3	H	CH_3	OH	OH	H	H	NH_2
II-3-4	^{i}Pr	H	H	$CH_2CH(CH_3)_2$	CH_3	H	CH_3	OH	OH	H	H	NH_2
II-3-5	^{i}Pr	H	H	CH_2Ph	CH_3	H	CH_3	OH	OH	H	H	NH_2
II-3-6	^{i}Pr	H	H	CH_2-indol-3-yl	CH_3	H	CH_3	OH	OH	H	H	NH_2
II-3-7	^{i}Pr	H	H	$CH_2CH_2SCH_3$	CH_3	H	CH_3	OH	OH	H	H	NH_2
II-3-8	^{i}Pr	*	H	*	CH_3	H	CH_3	OH	OH	H	H	NH_2

*R^2 and R^{3b} joined together by $(CH_2)_3$ to form five-membered ring.

Table II-4.

№	R^1	R^2	R^{3a}	R^{3b}	R^4	R^5	R^6	X	Y	R^7	R^8	R^9
II-4-1	^{t}Bu	H	H	H	CH_3	H	CH_3	OH	OH	H	H	NH_2
II-4-2	^{t}Bu	H	H	CH_3	CH_3	H	CH_3	OH	OH	H	H	NH_2
II-4-3	^{t}Bu	H	H	$CH(CH_3)_2$	CH_3	H	CH_3	OH	OH	H	H	NH_2
II-4-4	^{t}Bu	H	H	$CH_2CH(CH_3)_2$	CH_3	H	CH_3	OH	OH	H	H	NH_2
II-4-5	^{t}Bu	H	H	CH_2Ph	CH_3	H	CH_3	OH	OH	H	H	NH_2
II-4-6	^{t}Bu	H	H	CH_2-indol-3-yl	CH_3	H	CH_3	OH	OH	H	H	NH_2
II-4-7	^{t}Bu	H	H	$CH_2CH_2SCH_3$	CH_3	H	CH_3	OH	OH	H	H	NH_2
II-4-8	^{t}Bu	*	H	*	CH_3	H	CH_3	OH	OH	H	H	NH_2

*R^2 and R^{3b} joined together by $(CH_2)_3$ to form five-membered ring.

Table II-5.

№	R^1	R^2	R^{3a}	R^{3b}	R^4	R^5	R^6	X	Y	R^7	R^8	R^9
II-5-1	Ph	H	H	H	CH_3	H	CH_3	OH	OH	H	H	NH_2
II-5-2	Ph	H	H	CH_3	CH_3	H	CH_3	OH	OH	H	H	NH_2

Gilead Exhibit 2023
PGR2023-00046 - Page 00108

№	R^1	R^2	R^{3a}	R^{3b}	R^4	R^5	R^6	X	Y	R^7	R^8	R^9
II-5-3	Ph	H	H	$CH(CH_3)_2$	CH_3	H	CH_3	OH	OH	H	H	NH_2
II-5-4	Ph	H	H	$CH_2CH(CH_3)_2$	CH_3	H	CH_3	OH	OH	H	H	NH_2
II-5-5	Ph	H	H	CH_2Ph	CH_3	H	CH_3	OH	OH	H	H	NH_2
II-5-6	Ph	H	H	CH_2-indol-3-yl	CH_3	H	CH_3	OH	OH	H	H	NH_2
II-5-7	Ph	H	H	$CH_2CH_2SCH_3$	CH_3	H	CH_3	OH	OH	H	H	NH_2
II-5-8	Ph	*	H	*	CH_3	H	CH_3	OH	OH	H	H	NH_2

*R^2 and R^{3b} joined together by $(CH_2)_3$ to form five-membered ring.

Table II-6.

№	R^1	R^2	R^{3a}	R^{3b}	R^4	R^5	R^6	X	Y	R^7	R^8	R^9
II-6-1	p-Me-Ph	H	H	H	CH_3	H	CH_3	OH	OH	H	H	NH_2
II-6-2	p-Me-Ph	H	H	CH_3	CH_3	H	CH_3	OH	OH	H	H	NH_2
II-6-3	p-Me-Ph	H	H	$CH(CH_3)_2$	CH_3	H	CH_3	OH	OH	H	H	NH_2
II-6-4	p-Me-Ph	H	H	$CH_2CH(CH_3)_2$	CH_3	H	CH_3	OH	OH	H	H	NH_2
II-6-5	p-Me-Ph	H	H	CH_2Ph	CH_3	H	CH_3	OH	OH	H	H	NH_2
II-6-6	p-Me-Ph	H	H	CH_2-indol-3-yl	CH_3	H	CH_3	OH	OH	H	H	NH_2
II-6-7	p-Me-Ph	H	H	$CH_2CH_2SCH_3$	CH_3	H	CH_3	OH	OH	H	H	NH_2
II-6-8	p-Me-Ph	*	H	*	CH_3	H	CH_3	OH	OH	H	H	NH_2

*R^2 and R^{3b} joined together by $(CH_2)_3$ to form five-membered ring.

Table II-7.

№	R^1	R^2	R^{3a}	R^{3b}	R^4	R^5	R^6	X	Y	R^7	R^8	R^9
II-7-1	p-F-Ph	H	H	H	CH_3	H	CH_3	OH	OH	H	H	NH_2
II-7-2	p-F-Ph	H	H	CH_3	CH_3	H	CH_3	OH	OH	H	H	NH_2
II-7-3	p-F-Ph	H	H	$CH(CH_3)_2$	CH_3	H	CH_3	OH	OH	H	H	NH_2
II-7-4	p-F-Ph	H	H	$CH_2CH(CH_3)_2$	CH_3	H	CH_3	OH	OH	H	H	NH_2
II-7-6	p-F-Ph	H	H	CH_2Ph	CH_3	H	CH_3	OH	OH	H	H	NH_2
II-7-7	p-F-Ph	H	H	CH_2-indol-3-yl	CH_3	H	CH_3	OH	OH	H	H	NH_2
II-7-8	p-F-Ph	H	H	$CH_2CH_2SCH_3$	CH_3	H	CH_3	OH	OH	H	H	NH_2
II-7-20	p-F-Ph	*	H	*	CH_3	H	CH_3	OH	OH	H	H	NH_2

*R^2 and R^{3b} joined together by $(CH_2)_3$ to form five-membered ring.

Table II-8.

№	R^1	R^2	R^{3a}	R^{3b}	R^4	R^5	R^6	X	Y	R^7	R^8	R^9

Gilead Exhibit 2023
PGR2023-00046 - Page 00109

№	R^1	R^2	R^{3a}	R^{3b}	R^4	R^5	R^6	X	Y	R^7	R^8	R^9
II-8-1	p-Cl-Ph	H	H	H	CH_3	H	CH_3	OH	OH	H	H	NH_2
II-8-2	p-Cl-Ph	H	H	CH_3	CH_3	H	CH_3	OH	OH	H	H	NH_2
II-8-3	p-Cl-Ph	H	H	$CH(CH_3)_2$	CH_3	H	CH_3	OH	OH	H	H	NH_2
II-8-4	p-Cl-Ph	H	H	$CH_2CH(CH_3)_2$	CH_3	H	CH_3	OH	OH	H	H	NH_2
II-8-5	p-Cl-Ph	H	H	CH_2Ph	CH_3	H	CH_3	OH	OH	H	H	NH_2
II-8-6	p-Cl-Ph	H	H	CH_2-indol-3-yl	CH_3	H	CH_3	OH	OH	H	H	NH_2
II-8-7	p-Cl-Ph	H	H	$CH_2CH_2SCH_3$	CH_3	H	CH_3	OH	OH	H	H	NH_2
II-8-8	p-Cl-Ph	*	H	*	CH_3	H	CH_3	OH	OH	H	H	NH_2

*R^2 and R^{3b} joined together by $(CH_2)_3$ to form five-membered ring.

Table II-9.

№	R^1	R^2	R^{3a}	R^{3b}	R^4	R^5	R^6	X	Y	R^7	R^8	R^9
II-9-1	p-Br-Ph	H	H	H	CH_3	H	CH_3	OH	OH	H	H	NH_2
II-9-2	p-Br-Ph	H	H	CH_3	CH_3	H	CH_3	OH	OH	H	H	NH_2
II-9-3	p-Br-Ph	H	H	$CH(CH_3)_2$	CH_3	H	CH_3	OH	OH	H	H	NH_2
II-9-4	p-Br-Ph	H	H	$CH_2CH(CH_3)_2$	CH_3	H	CH_3	OH	OH	H	H	NH_2
II-9-6	p-Br-Ph	H	H	CH_2Ph	CH_3	H	CH_3	OH	OH	H	H	NH_2
II-9-7	p-Br-Ph	H	H	CH_2-indol-3-yl	CH_3	H	CH_3	OH	OH	H	H	NH_2
II-9-8	p-Br-Ph	H	H	$CH_2CH_2SCH_3$	CH_3	H	CH_3	OH	OH	H	H	NH_2
II-9-20	p-Br-Ph	*	H	*	CH_3	H	CH_3	OH	OH	H	H	NH_2

*R^2 and R^{3b} joined together by $(CH_2)_3$ to form five-membered ring.

Table II-10.

№	R^1	R^2	R^{3a}	R^{3b}	R^4	R^5	R^6	X	Y	R^7	R^8	R^9
II-10-1	p-I-Ph	H	H	H	CH_3	H	CH_3	OH	OH	H	H	NH_2
II-10-2	p-I-Ph	H	H	CH_3	CH_3	H	CH_3	OH	OH	H	H	NH_2
II-10-3	p-I-Ph	H	H	$CH(CH_3)_2$	CH_3	H	CH_3	OH	OH	H	H	NH_2
II-10-4	p-I-Ph	H	H	$CH_2CH(CH_3)_2$	CH_3	H	CH_3	OH	OH	H	H	NH_2
II-10-5	p-I-Ph	H	H	CH_2Ph	CH_3	H	CH_3	OH	OH	H	H	NH_2
II-10-6	p-I-Ph	H	H	CH_2-indol-3-yl	CH_3	H	CH_3	OH	OH	H	H	NH_2
II-10-7	p-I-Ph	H	H	$CH_2CH_2SCH_3$	CH_3	H	CH_3	OH	OH	H	H	NH_2
II-10-8	p-I-Ph	*	H	*	CH_3	H	CH_3	OH	OH	H	H	NH_2

*R^2 and R^{3b} joined together by $(CH_2)_3$ to form five-membered ring.

Gilead Exhibit 2023
PGR2023-00046 - Page 00110

Table II-11.

№	R^1	R^2	R^{3a}	R^{3b}	R^4	R^5	R^6	X	Y	R^7	R^8	R^9
II-11-1	CH_3	H	H	H	Et	H	CH_3	OH	OH	H	H	NH_2
II-11-2	CH_3	H	H	CH_3	Et	H	CH_3	OH	OH	H	H	NH_2
II-11-3	CH_3	H	H	$CH(CH_3)_2$	Et	H	CH_3	OH	OH	H	H	NH_2
II-11-4	CH_3	H	H	$CH_2CH(CH_3)_2$	Et	H	CH_3	OH	OH	H	H	NH_2
II-11-5	CH_3	H	H	CH_2Ph	Et	H	CH_3	OH	OH	H	H	NH_2
II-11-6	CH_3	H	H	CH_2-indol-3-yl	Et	H	CH_3	OH	OH	H	H	NH_2
II-11-7	CH_3	H	H	$CH_2CH_2SCH_3$	Et	H	CH_3	OH	OH	H	H	NH_2
II-11-8	CH_3	*	H	*	Et	H	CH_3	OH	OH	H	H	NH_2

*R^2 and R^{3b} joined together by $(CH_2)_3$ to form five-membered ring.

Table II-12.

№	R^1	R^2	R^{3a}	R^{3b}	R^4	R^5	R^6	X	Y	R^7	R^8	R^9
II-12-1	Et	H	H	H	Et	H	CH_3	OH	OH	H	H	NH_2
II-12-2	Et	H	H	CH_3	Et	H	CH_3	OH	OH	H	H	NH_2
II-12-3	Et	H	H	$CH(CH_3)_2$	Et	H	CH_3	OH	OH	H	H	NH_2
II-12-4	Et	H	H	$CH_2CH(CH_3)_2$	Et	H	CH_3	OH	OH	H	H	NH_2
II-12-5	Et	H	H	CH_2Ph	Et	H	CH_3	OH	OH	H	H	NH_2
II-12-6	Et	H	H	CH_2-indol-3-yl	Et	H	CH_3	OH	OH	H	H	NH_2
II-12-7	Et	H	H	$CH_2CH_2SCH_3$	Et	H	CH_3	OH	OH	H	H	NH_2
II-12-8	Et	*	H	*	Et	H	CH_3	OH	OH	H	H	NH_2

*R^2 and R^{3b} joined together by $(CH_2)_3$ to form five-membered ring.

Table II-13.

№	R^1	R^2	R^{3a}	R^{3b}	R^4	R^5	R^6	X	Y	R^7	R^8	R^9
II-13-1	^iPr	H	H	H	Et	H	CH_3	OH	OH	H	H	NH_2
II-13-2	^iPr	H	H	CH_3	Et	H	CH_3	OH	OH	H	H	NH_2
II-13-3	^iPr	H	H	$CH(CH_3)_2$	Et	H	CH_3	OH	OH	H	H	NH_2
II-13-4	^iPr	H	H	$CH_2CH(CH_3)_2$	Et	H	CH_3	OH	OH	H	H	NH_2
II-13-5	^iPr	H	H	CH_2Ph	Et	H	CH_3	OH	OH	H	H	NH_2
II-13-6	^iPr	H	H	CH_2-indol-3-yl	Et	H	CH_3	OH	OH	H	H	NH_2
II-13-7	^iPr	H	H	$CH_2CH_2SCH_3$	Et	H	CH_3	OH	OH	H	H	NH_2
II-13-8	^iPr	*	H	*	Et	H	CH_3	OH	OH	H	H	NH_2

*R^2 and R^{3b} joined together by $(CH_2)_3$ to form five-membered ring.

Gilead Exhibit 2023
PGR2023-00046 - Page 00111

Table II-14.

№	R^1	R^2	R^{3a}	R^{3b}	R^4	R^5	R^6	X	Y	R^7	R^8	R^9
II-14-1	^{t}Bu	H	H	H	Et	H	CH_3	OH	OH	H	H	NH_2
II-14-2	^{t}Bu	H	H	CH_3	Et	H	CH_3	OH	OH	H	H	NH_2
II-14-3	^{t}Bu	H	H	$CH(CH_3)_2$	Et	H	CH_3	OH	OH	H	H	NH_2
II-14-4	^{t}Bu	H	H	$CH_2CH(CH_3)_2$	Et	H	CH_3	OH	OH	H	H	NH_2
II-14-5	^{t}Bu	H	H	CH_2Ph	Et	H	CH_3	OH	OH	H	H	NH_2
II-14-6	^{t}Bu	H	H	CH_2-indol-3-yl	Et	H	CH_3	OH	OH	H	H	NH_2
II-14-7	^{t}Bu	H	H	$CH_2CH_2SCH_3$	Et	H	CH_3	OH	OH	H	H	NH_2
II-14-8	^{t}Bu	*	H	*	Et	H	CH_3	OH	OH	H	H	NH_2

*R^2 and R^{3b} joined together by $(CH_2)_3$ to form five-membered ring.

Table II-15.

№	R^1	R^2	R^{3a}	R^{3b}	R^4	R^5	R^6	X	Y	R^7	R^8	R^9
II-15-1	Ph	H	H	H	Et	H	CH_3	OH	OH	H	H	NH_2
II-15-2	Ph	H	H	CH_3	Et	H	CH_3	OH	OH	H	H	NH_2
II-15-3	Ph	H	H	$CH(CH_3)_2$	Et	H	CH_3	OH	OH	H	H	NH_2
II-15-4	Ph	H	H	$CH_2CH(CH_3)_2$	Et	H	CH_3	OH	OH	H	H	NH_2
II-15-5	Ph	H	H	CH_2Ph	Et	H	CH_3	OH	OH	H	H	NH_2
II-15-6	Ph	H	H	CH_2-indol-3-yl	Et	H	CH_3	OH	OH	H	H	NH_2
II-15-7	Ph	H	H	$CH_2CH_2SCH_3$	Et	H	CH_3	OH	OH	H	H	NH_2
II-15-8	Ph	*	H	*	Et	H	CH_3	OH	OH	H	H	NH_2

*R^2 and R^{3b} joined together by $(CH_2)_3$ to form five-membered ring.

Table II-16.

№	R^1	R^2	R^{3a}	R^{3b}	R^4	R^5	R^6	X	Y	R^7	R^8	R^9
II-16-1	p-Me-Ph	H	H	H	Et	H	CH_3	OH	OH	H	H	NH_2
II-16-2	p-Me-Ph	H	H	CH_3	Et	H	CH_3	OH	OH	H	H	NH_2
II-16-3	p-Me-Ph	H	H	$CH(CH_3)_2$	Et	H	CH_3	OH	OH	H	H	NH_2
II-16-4	p-Me-Ph	H	H	$CH_2CH(CH_3)_2$	Et	H	CH_3	OH	OH	H	H	NH_2
II-16-5	p-Me-Ph	H	H	CH_2Ph	Et	H	CH_3	OH	OH	H	H	NH_2
II-16-6	p-Me-Ph	H	H	CH_2-indol-3-yl	Et	H	CH_3	OH	OH	H	H	NH_2
II-16-7	p-Me-Ph	H	H	$CH_2CH_2SCH_3$	Et	H	CH_3	OH	OH	H	H	NH_2
II-16-8	p-Me-Ph	*	H	*	Et	H	CH_3	OH	OH	H	H	NH_2

Gilead Exhibit 2023
PGR2023-00046 - Page 00112

*R^2 and R^{3b} joined together by $(CH_2)_3$ to form five-membered ring.

Table II-17.

№	R^1	R^2	R^{3a}	R^{3b}	R^4	R^5	R^6	X	Y	R^7	R^8	R^9
II-17-1	p-F-Ph	H	H	H	Et	H	CH_3	OH	OH	H	H	NH_2
II-17-2	p-F-Ph	H	H	CH_3	Et	H	CH_3	OH	OH	H	H	NH_2
II-17-3	p-F-Ph	H	H	$CH(CH_3)_2$	Et	H	CH_3	OH	OH	H	H	NH_2
II-17-4	p-F-Ph	H	H	$CH_2CH(CH_3)_2$	Et	H	CH_3	OH	OH	H	H	NH_2
II-17-5	p-F-Ph	H	H	CH_2Ph	Et	H	CH_3	OH	OH	H	H	NH_2
II-17-6	p-F-Ph	H	H	CH_2-indol-3-yl	Et	H	CH_3	OH	OH	H	H	NH_2
II-17-7	p-F-Ph	H	H	$CH_2CH_2SCH_3$	Et	H	CH_3	OH	OH	H	H	NH_2
II-17-8	p-F-Ph	*	H	*	Et	H	CH_3	OH	OH	H	H	NH_2

*R^2 and R^{3b} joined together by $(CH_2)_3$ to form five-membered ring.

Table II-18.

№	R^1	R^2	R^{3a}	R^{3b}	R^4	R^5	R^6	X	Y	R^7	R^8	R^9
II-18-1	p-Cl-Ph	H	H	H	Et	H	CH_3	OH	OH	H	H	NH_2
II-18-2	p-Cl-Ph	H	H	CH_3	Et	H	CH_3	OH	OH	H	H	NH_2
II-18-3	p-Cl-Ph	H	H	$CH(CH_3)_2$	Et	H	CH_3	OH	OH	H	H	NH_2
II-18-4	p-Cl-Ph	H	H	$CH_2CH(CH_3)_2$	Et	H	CH_3	OH	OH	H	H	NH_2
II-18-5	p-Cl-Ph	H	H	CH_2Ph	Et	H	CH_3	OH	OH	H	H	NH_2
II-18-6	p-Cl-Ph	H	H	CH_2-indol-3-yl	Et	H	CH_3	OH	OH	H	H	NH_2
II-18-7	p-Cl-Ph	H	H	$CH_2CH_2SCH_3$	Et	H	CH_3	OH	OH	H	H	NH_2
II-18-8	p-Cl-Ph	*	H	*	Et	H	CH_3	OH	OH	H	H	NH_2

*R^2 and R^{3b} joined together by $(CH_2)_3$ to form five-membered ring.

Table II-19.

№	R^1	R^2	R^{3a}	R^{3b}	R^4	R^5	R^6	X	Y	R^7	R^8	R^9
II-19-1	p-Br-Ph	H	H	H	Et	H	CH_3	OH	OH	H	H	NH_2
II-19-2	p-Br-Ph	H	H	CH_3	Et	H	CH_3	OH	OH	H	H	NH_2
II-19-3	p-Br-Ph	H	H	$CH(CH_3)_2$	Et	H	CH_3	OH	OH	H	H	NH_2
II-19-4	p-Br-Ph	H	H	$CH_2CH(CH_3)_2$	Et	H	CH_3	OH	OH	H	H	NH_2
II-19-5	p-Br-Ph	H	H	CH_2Ph	Et	H	CH_3	OH	OH	H	H	NH_2
II-19-6	p-Br-Ph	H	H	CH_2-indol-3-yl	Et	H	CH_3	OH	OH	H	H	NH_2
II-19-7	p-Br-Ph	H	H	$CH_2CH_2SCH_3$	Et	H	CH_3	OH	OH	H	H	NH_2

Gilead Exhibit 2023
PGR2023-00046 - Page 00113

№	R^1	R^2	R^{3a}	R^{3b}	R^4	R^5	R^6	X	Y	R^7	R^8	R^9
II-19-8	p-Br-Ph	*	H	*	Et	H	CH_3	OH	OH	H	H	NH_2

*R^2 and R^{3b} joined together by $(CH_2)_3$ to form five-membered ring.

Table II-20.

№	R^1	R^2	R^{3a}	R^{3b}	R^4	R^5	R^6	X	Y	R^7	R^8	R^9
II-20-1	p-I-Ph	H	H	H	Et	H	CH_3	OH	OH	H	H	NH_2
II-20-2	p-I-Ph	H	H	CH_3	Et	H	CH_3	OH	OH	H	H	NH_2
II-20-3	p-I-Ph	H	H	$CH(CH_3)_2$	Et	H	CH_3	OH	OH	H	H	NH_2
II-20-4	p-I-Ph	H	H	$CH_2CH(CH_3)_2$	Et	H	CH_3	OH	OH	H	H	NH_2
II-20-5	p-I-Ph	H	H	CH_2Ph	Et	H	CH_3	OH	OH	H	H	NH_2
II-20-6	p-I-Ph	H	H	CH_2-indol-3-yl	Et	H	CH_3	OH	OH	H	H	NH_2
II-20-7	p-I-Ph	H	H	$CH_2CH_2SCH_3$	Et	H	CH_3	OH	OH	H	H	NH_2
II-20-8	p-I-Ph	*	H	*	Et	H	CH_3	OH	OH	H	H	NH_2

*R^2 and R^{3b} joined together by $(CH_2)_3$ to form five-membered ring.

Table II-21.

№	R^1	R^2	R^{3a}	R^{3b}	R^4	R^5	R^6	X	Y	R^7	R^8	R^9
II-21-1	CH_3	H	H	H	^{i}Pr	H	CH_3	OH	OH	H	H	NH_2
II-21-2	CH_3	H	H	CH_3	^{i}Pr	H	CH_3	OH	OH	H	H	NH_2
II-21-3	CH_3	H	H	$CH(CH_3)_2$	^{i}Pr	H	CH_3	OH	OH	H	H	NH_2
II-21-4	CH_3	H	H	$CH_2CH(CH_3)_2$	^{i}Pr	H	CH_3	OH	OH	H	H	NH_2
II-21-5	CH_3	H	H	CH_2Ph	^{i}Pr	H	CH_3	OH	OH	H	H	NH_2
II-21-6	CH_3	H	H	CH_2-indol-3-yl	^{i}Pr	H	CH_3	OH	OH	H	H	NH_2
II-21-7	CH_3	H	H	$CH_2CH_2SCH_3$	^{i}Pr	H	CH_3	OH	OH	H	H	NH_2
II-21-8	CH_3	*	H	*	^{i}Pr	H	CH_3	OH	OH	H	H	NH_2

*R^2 and R^{3b} joined together by $(CH_2)_3$ to form five-membered ring.

Table II-22.

№	R^1	R^2	R^{3a}	R^{3b}	R^4	R^5	R^6	X	Y	R^7	R^8	R^9
II-22-1	Et	H	H	H	^{i}Pr	H	CH_3	OH	OH	H	H	NH_2
II-22-2	Et	H	H	CH_3	^{i}Pr	H	CH_3	OH	OH	H	H	NH_2
II-22-3	Et	H	H	$CH(CH_3)_2$	^{i}Pr	H	CH_3	OH	OH	H	H	NH_2
II-22-4	Et	H	H	$CH_2CH(CH_3)_2$	^{i}Pr	H	CH_3	OH	OH	H	H	NH_2
II-22-5	Et	H	H	CH_2Ph	^{i}Pr	H	CH_3	OH	OH	H	H	NH_2

Gilead Exhibit 2023
PGR2023-00046 - Page 00114

№	R^1	R^2	R^{3a}	R^{3b}	R^4	R^5	R^6	X	Y	R^7	R^8	R^9
II-22-6	Et	H	H	CH_2-indol-3-yl	^{i}Pr	H	CH_3	OH	OH	H	H	NH_2
II-22-7	Et	H	H	$CH_2CH_2SCH_3$	^{i}Pr	H	CH_3	OH	OH	H	H	NH_2
II-22-8	Et	*	H	*	^{i}Pr	H	CH_3	OH	OH	H	H	NH_2

*R^2 and R^{3b} joined together by $(CH_2)_3$ to form five-membered ring.

Table II-23.

№	R^1	R^2	R^{3a}	R^{3b}	R^4	R^5	R^6	X	Y	R^7	R^8	R^9
II-23-1	^{i}Pr	H	H	H	^{i}Pr	H	CH_3	OH	OH	H	H	NH_2
II-23-2	^{i}Pr	H	H	CH_3	^{i}Pr	H	CH_3	OH	OH	H	H	NH_2
II-23-3	^{i}Pr	H	H	$CH(CH_3)_2$	^{i}Pr	H	CH_3	OH	OH	H	H	NH_2
II-23-4	^{i}Pr	H	H	$CH_2CH(CH_3)_2$	^{i}Pr	H	CH_3	OH	OH	H	H	NH_2
II-23-5	^{i}Pr	H	H	CH_2Ph	^{i}Pr	H	CH_3	OH	OH	H	H	NH_2
II-23-6	^{i}Pr	H	H	CH_2-indol-3-yl	^{i}Pr	H	CH_3	OH	OH	H	H	NH_2
II-23-7	^{i}Pr	H	H	$CH_2CH_2SCH_3$	^{i}Pr	H	CH_3	OH	OH	H	H	NH_2
II-23-8	^{i}Pr	*	H	*	^{i}Pr	H	CH_3	OH	OH	H	H	NH_2

*R^2 and R^{3b} joined together by $(CH_2)_3$ to form five-membered ring.

Table II-24.

№	R^1	R^2	R^{3a}	R^{3b}	R^4	R^5	R^6	X	Y	R^7	R^8	R^9
II-24-1	^{t}Bu	H	H	H	^{i}Pr	H	CH_3	OH	OH	H	H	NH_2
II-24-2	^{t}Bu	H	H	CH_3	^{i}Pr	H	CH_3	OH	OH	H	H	NH_2
II-24-3	^{t}Bu	H	H	$CH(CH_3)_2$	^{i}Pr	H	CH_3	OH	OH	H	H	NH_2
II-24-4	^{t}Bu	H	H	$CH_2CH(CH_3)_2$	^{i}Pr	H	CH_3	OH	OH	H	H	NH_2
II-24-5	^{t}Bu	H	H	CH_2Ph	^{i}Pr	H	CH_3	OH	OH	H	H	NH_2
II-24-6	^{t}Bu	H	H	CH_2-indol-3-yl	^{i}Pr	H	CH_3	OH	OH	H	H	NH_2
II-24-7	^{t}Bu	H	H	$CH_2CH_2SCH_3$	^{i}Pr	H	CH_3	OH	OH	H	H	NH_2
II-24-8	^{t}Bu	*	H	*	^{i}Pr	H	CH_3	OH	OH	H	H	NH_2

*R^2 and R^{3b} joined together by $(CH_2)_3$ to form five-membered ring.

Table II-25.

№	R^1	R^2	R^{3a}	R^{3b}	R^4	R^5	R^6	X	Y	R^7	R^8	R^9
II-25-1	Ph	H	H	H	^{i}Pr	H	CH_3	OH	OH	H	H	NH_2
II-25-2	Ph	H	H	CH_3	^{i}Pr	H	CH_3	OH	OH	H	H	NH_2
II-25-3	Ph	H	H	$CH(CH_3)_2$	^{i}Pr	H	CH_3	OH	OH	H	H	NH_2

Gilead Exhibit 2023
PGR2023-00046 - Page 00115

№	R^1	R^2	R^{3a}	R^{3b}	R^4	R^5	R^6	X	Y	R^7	R^8	R^9
II-25-4	Ph	H	H	$CH_2CH(CH_3)_2$	^{i}Pr	H	CH_3	OH	OH	H	H	NH_2
II-25-5	Ph	H	H	CH_2Ph	^{i}Pr	H	CH_3	OH	OH	H	H	NH_2
II-25-6	Ph	H	H	CH_2-indol-3-yl	^{i}Pr	H	CH_3	OH	OH	H	H	NH_2
II-25-7	Ph	H	H	$CH_2CH_2SCH_3$	^{i}Pr	H	CH_3	OH	OH	H	H	NH_2
II-25-8	Ph	*	H	*	^{i}Pr	H	CH_3	OH	OH	H	H	NH_2

*R^2 and R^{3b} joined together by $(CH_2)_3$ to form five-membered ring.

Table II-26.

№	R^1	R^2	R^{3a}	R^{3b}	R^4	R^5	R^6	X	Y	R^7	R^8	R^9
II-26-1	p-Me-Ph	H	H	H	^{i}Pr	H	CH_3	OH	OH	H	H	NH_2
II-26-2	p-Me-Ph	H	H	CH_3	^{i}Pr	H	CH_3	OH	OH	H	H	NH_2
II-26-3	p-Me-Ph	H	H	$CH(CH_3)_2$	^{i}Pr	H	CH_3	OH	OH	H	H	NH_2
II-26-4	p-Me-Ph	H	H	$CH_2CH(CH_3)_2$	^{i}Pr	H	CH_3	OH	OH	H	H	NH_2
II-26-5	p-Me-Ph	H	H	CH_2Ph	^{i}Pr	H	CH_3	OH	OH	H	H	NH_2
II-26-6	p-Me-Ph	H	H	CH_2-indol-3-yl	^{i}Pr	H	CH_3	OH	OH	H	H	NH_2
II-26-7	p-Me-Ph	H	H	$CH_2CH_2SCH_3$	^{i}Pr	H	CH_3	OH	OH	H	H	NH_2
II-26-8	p-Me-Ph	*	H	*	^{i}Pr	H	CH_3	OH	OH	H	H	NH_2

*R^2 and R^{3b} joined together by $(CH_2)_3$ to form five-membered ring.

Table II-27.

№	R^1	R^2	R^{3a}	R^{3b}	R^4	R^5	R^6	X	Y	R^7	R^8	R^9
II-27-1	p-F-Ph	H	H	H	^{i}Pr	H	CH_3	OH	OH	H	H	NH_2
II-27-2	p-F-Ph	H	H	CH_3	^{i}Pr	H	CH_3	OH	OH	H	H	NH_2
II-27-3	p-F-Ph	H	H	$CH(CH_3)_2$	^{i}Pr	H	CH_3	OH	OH	H	H	NH_2
II-27-4	p-F-Ph	H	H	$CH_2CH(CH_3)_2$	^{i}Pr	H	CH_3	OH	OH	H	H	NH_2
II-27-5	p-F-Ph	H	H	CH_2Ph	^{i}Pr	H	CH_3	OH	OH	H	H	NH_2
II-27-6	p-F-Ph	H	H	CH_2-indol-3-yl	^{i}Pr	H	CH_3	OH	OH	H	H	NH_2
II-27-7	p-F-Ph	H	H	$CH_2CH_2SCH_3$	^{i}Pr	H	CH_3	OH	OH	H	H	NH_2
II-27-8	p-F-Ph	*	H	*	^{i}Pr	H	CH_3	OH	OH	H	H	NH_2

*R^2 and R^{3b} joined together by $(CH_2)_3$ to form five-membered ring.

Table II-28.

№	R^1	R^2	R^{3a}	R^{3b}	R^4	R^5	R^6	X	Y	R^7	R^8	R^9
II-28-1	p-Cl-Ph	H	H	H	^{i}Pr	H	CH_3	OH	OH	H	H	NH_2

Gilead Exhibit 2023
PGR2023-00046 - Page 00116

№	R^1	R^2	R^{3a}	R^{3b}	R^4	R^5	R^6	X	Y	R^7	R^8	R^9
II-28-2	p-Cl-Ph	H	H	CH_3	^{i}Pr	H	CH_3	OH	OH	H	H	NH_2
II-28-3	p-Cl-Ph	H	H	$CH(CH_3)_2$	^{i}Pr	H	CH_3	OH	OH	H	H	NH_2
II-28-4	p-Cl-Ph	H	H	$CH_2CH(CH_3)_2$	^{i}Pr	H	CH_3	OH	OH	H	H	NH_2
II-28-5	p-Cl-Ph	H	H	CH_2Ph	^{i}Pr	H	CH_3	OH	OH	H	H	NH_2
II-28-6	p-Cl-Ph	H	H	CH_2-indol-3-yl	^{i}Pr	H	CH_3	OH	OH	H	H	NH_2
II-28-7	p-Cl-Ph	H	H	$CH_2CH_2SCH_3$	^{i}Pr	H	CH_3	OH	OH	H	H	NH_2
II-28-8	p-Cl-Ph	*	H	*	^{i}Pr	H	CH_3	OH	OH	H	H	NH_2

*R^2 and R^{3b} joined together by $(CH_2)_3$ to form five-membered ring.

Table II-29.

№	R^1	R^2	R^{3a}	R^{3b}	R^4	R^5	R^6	X	Y	R^7	R^8	R^9
II-29-1	p-Br-Ph	H	H	H	^{i}Pr	H	CH_3	OH	OH	H	H	NH_2
II-29-2	p-Br-Ph	H	H	CH_3	^{i}Pr	H	CH_3	OH	OH	H	H	NH_2
II-29-3	p-Br-Ph	H	H	$CH(CH_3)_2$	^{i}Pr	H	CH_3	OH	OH	H	H	NH_2
II-29-4	p-Br-Ph	H	H	$CH_2CH(CH_3)_2$	^{i}Pr	H	CH_3	OH	OH	H	H	NH_2
II-29-5	p-Br-Ph	H	H	CH_2Ph	^{i}Pr	H	CH_3	OH	OH	H	H	NH_2
II-29-6	p-Br-Ph	H	H	CH_2-indol-3-yl	^{i}Pr	H	CH_3	OH	OH	H	H	NH_2
II-29-7	p-Br-Ph	H	H	$CH_2CH_2SCH_3$	^{i}Pr	H	CH_3	OH	OH	H	H	NH_2
II-29-8	p-Br-Ph	*	H	*	^{i}Pr	H	CH_3	OH	OH	H	H	NH_2

*R^2 and R^{3b} joined together by $(CH_2)_3$ to form five-membered ring.

Table II-30.

№	R^1	R^2	R^{3a}	R^{3b}	R^4	R^5	R^6	X	Y	R^7	R^8	R^9
II-30-1	p-I-Ph	H	H	H	^{i}Pr	H	CH_3	OH	OH	H	H	NH_2
II-30-2	p-I-Ph	H	H	CH_3	^{i}Pr	H	CH_3	OH	OH	H	H	NH_2
II-30-3	p-I-Ph	H	H	$CH(CH_3)_2$	^{i}Pr	H	CH_3	OH	OH	H	H	NH_2
II-30-4	p-I-Ph	H	H	$CH_2CH(CH_3)_2$	^{i}Pr	H	CH_3	OH	OH	H	H	NH_2
II-30-5	p-I-Ph	H	H	CH_2Ph	^{i}Pr	H	CH_3	OH	OH	H	H	NH_2
II-30-6	p-I-Ph	H	H	CH_2-indol-3-yl	^{i}Pr	H	CH_3	OH	OH	H	H	NH_2
II-30-7	p-I-Ph	H	H	$CH_2CH_2SCH_3$	^{i}Pr	H	CH_3	OH	OH	H	H	NH_2
II-30-8	p-I-Ph	*	H	*	^{i}Pr	H	CH_3	OH	OH	H	H	NH_2

*R^2 and R^{3b} joined together by $(CH_2)_3$ to form five-membered ring.

Table II-31.

Gilead Exhibit 2023
PGR2023-00046 - Page 00117

№	R^1	R^2	R^{3a}	R^{3b}	R^4	R^5	R^6	X	Y	R^7	R^8	R^9
II-31-1	CH_3	H	H	H	^{n}Bu	H	CH_3	OH	OH	H	H	NH_2
II-31-2	CH_3	H	H	CH_3	^{n}Bu	H	CH_3	OH	OH	H	H	NH_2
II-31-3	CH_3	H	H	$CH(CH_3)_2$	^{n}Bu	H	CH_3	OH	OH	H	H	NH_2
II-31-4	CH_3	H	H	$CH_2CH(CH_3)_2$	^{n}Bu	H	CH_3	OH	OH	H	H	NH_2
II-31-5	CH_3	H	H	CH_2Ph	^{n}Bu	H	CH_3	OH	OH	H	H	NH_2
II-31-6	CH_3	H	H	CH_2-indol-3-yl	^{n}Bu	H	CH_3	OH	OH	H	H	NH_2
II-31-7	CH_3	H	H	$CH_2CH_2SCH_3$	^{n}Bu	H	CH_3	OH	OH	H	H	NH_2
II-31-8	CH_3	*	H	*	^{n}Bu	H	CH_3	OH	OH	H	H	NH_2

*R^2 and R^{3b} joined together by $(CH_2)_3$ to form five-membered ring.

Table II-32.

№	R^1	R^2	R^{3a}	R^{3b}	R^4	R^5	R^6	X	Y	R^7	R^8	R^9
II-32-1	Et	H	H	H	^{n}Bu	H	CH_3	OH	OH	H	H	NH_2
II-32-2	Et	H	H	CH_3	^{n}Bu	H	CH_3	OH	OH	H	H	NH_2
II-32-3	Et	H	H	$CH(CH_3)_2$	^{n}Bu	H	CH_3	OH	OH	H	H	NH_2
II-32-4	Et	H	H	$CH_2CH(CH_3)_2$	^{n}Bu	H	CH_3	OH	OH	H	H	NH_2
II-32-5	Et	H	H	CH_2Ph	^{n}Bu	H	CH_3	OH	OH	H	H	NH_2
II-32-6	Et	H	H	CH_2-indol-3-yl	^{n}Bu	H	CH_3	OH	OH	H	H	NH_2
II-32-7	Et	H	H	$CH_2CH_2SCH_3$	^{n}Bu	H	CH_3	OH	OH	H	H	NH_2
II-32-8	Et	*	H	*	^{n}Bu	H	CH_3	OH	OH	H	H	NH_2

*R^2 and R^{3b} joined together by $(CH_2)_3$ to form five-membered ring.

Table II-33.

№	R^1	R^2	R^{3a}	R^{3b}	R^4	R^5	R^6	X	Y	R^7	R^8	R^9
II-33-1	^{i}Pr	H	H	H	^{n}Bu	H	CH_3	OH	OH	H	H	NH_2
II-33-2	^{i}Pr	H	H	CH_3	^{n}Bu	H	CH_3	OH	OH	H	H	NH_2
II-33-3	^{i}Pr	H	H	$CH(CH_3)_2$	^{n}Bu	H	CH_3	OH	OH	H	H	NH_2
II-33-4	^{i}Pr	H	H	$CH_2CH(CH_3)_2$	^{n}Bu	H	CH_3	OH	OH	H	H	NH_2
II-33-5	^{i}Pr	H	H	CH_2Ph	^{n}Bu	H	CH_3	OH	OH	H	H	NH_2
II-33-6	^{i}Pr	H	H	CH_2-indol-3-yl	^{n}Bu	H	CH_3	OH	OH	H	H	NH_2
II-33-7	^{i}Pr	H	H	$CH_2CH_2SCH_3$	^{n}Bu	H	CH_3	OH	OH	H	H	NH_2
II-33-8	^{i}Pr	*	H	*	^{n}Bu	H	CH_3	OH	OH	H	H	NH_2

*R^2 and R^{3b} joined together by $(CH_2)_3$ to form five-membered ring.

Gilead Exhibit 2023
PGR2023-00046 - Page 00118

Table II-34.

№	R^1	R^2	R^{3a}	R^{3b}	R^4	R^5	R^6	X	Y	R^7	R^8	R^9
II-34-1	^{t}Bu	H	H	H	^{n}Bu	H	CH_3	OH	OH	H	H	NH_2
II-34-2	^{t}Bu	H	H	CH_3	^{n}Bu	H	CH_3	OH	OH	H	H	NH_2
II-34-3	^{t}Bu	H	H	$CH(CH_3)_2$	^{n}Bu	H	CH_3	OH	OH	H	H	NH_2
II-34-4	^{t}Bu	H	H	$CH_2CH(CH_3)_2$	^{n}Bu	H	CH_3	OH	OH	H	H	NH_2
II-34-5	^{t}Bu	H	H	CH_2Ph	^{n}Bu	H	CH_3	OH	OH	H	H	NH_2
II-34-6	^{t}Bu	H	H	CH_2-indol-3-yl	^{n}Bu	H	CH_3	OH	OH	H	H	NH_2
II-34-7	^{t}Bu	H	H	$CH_2CH_2SCH_3$	^{n}Bu	H	CH_3	OH	OH	H	H	NH_2
II-34-8	^{t}Bu	*	H	*	^{n}Bu	H	CH_3	OH	OH	H	H	NH_2

*R^2 and R^{3b} joined together by $(CH_2)_3$ to form five-membered ring.

Table II-35.

№	R^1	R^2	R^{3a}	R^{3b}	R^4	R^5	R^6	X	Y	R^7	R^8	R^9
II-35-1	Ph	H	H	H	^{n}Bu	H	CH_3	OH	OH	H	H	NH_2
II-35-2	Ph	H	H	CH_3	^{n}Bu	H	CH_3	OH	OH	H	H	NH_2
II-35-3	Ph	H	H	$CH(CH_3)_2$	^{n}Bu	H	CH_3	OH	OH	H	H	NH_2
II-35-4	Ph	H	H	$CH_2CH(CH_3)_2$	^{n}Bu	H	CH_3	OH	OH	H	H	NH_2
II-35-5	Ph	H	H	CH_2Ph	^{n}Bu	H	CH_3	OH	OH	H	H	NH_2
II-35-6	Ph	H	H	CH_2-indol-3-yl	^{n}Bu	H	CH_3	OH	OH	H	H	NH_2
II-35-7	Ph	H	H	$CH_2CH_2SCH_3$	^{n}Bu	H	CH_3	OH	OH	H	H	NH_2
II-35-8	Ph	*	H	*	^{n}Bu	H	CH_3	OH	OH	H	H	NH_2

*R^2 and R^{3b} joined together by $(CH_2)_3$ to form five-membered ring.

Table II-36.

№	R^1	R^2	R^{3a}	R^{3b}	R^4	R^5	R^6	X	Y	R^7	R^8	R^9
II-36-1	p-Me-Ph	H	H	H	^{n}Bu	H	CH_3	OH	OH	H	H	NH_2
II-36-2	p-Me-Ph	H	H	CH_3	^{n}Bu	H	CH_3	OH	OH	H	H	NH_2
II-36-3	p-Me-Ph	H	H	$CH(CH_3)_2$	^{n}Bu	H	CH_3	OH	OH	H	H	NH_2
II-36-4	p-Me-Ph	H	H	$CH_2CH(CH_3)_2$	^{n}Bu	H	CH_3	OH	OH	H	H	NH_2
II-36-5	p-Me-Ph	H	H	CH_2Ph	^{n}Bu	H	CH_3	OH	OH	H	H	NH_2
II-36-6	p-Me-Ph	H	H	CH_2-indol-3-yl	^{n}Bu	H	CH_3	OH	OH	H	H	NH_2
II-36-7	p-Me-Ph	H	H	$CH_2CH_2SCH_3$	^{n}Bu	H	CH_3	OH	OH	H	H	NH_2
II-36-8	p-Me-Ph	*	H	*	^{n}Bu	H	CH_3	OH	OH	H	H	NH_2

*R^2 and R^{3b} joined together by $(CH_2)_3$ to form five-membered ring.

Gilead Exhibit 2023
PGR2023-00046 - Page 00119

Table II-37.

№	R^1	R^2	R^{3a}	R^{3b}	R^4	R^5	R^6	X	Y	R^7	R^8	R^9
II-37-1	p-F-Ph	H	H	H	^{n}Bu	H	CH_3	OH	OH	H	H	NH_2
II-37-2	p-F-Ph	H	H	CH_3	^{n}Bu	H	CH_3	OH	OH	H	H	NH_2
II-37-3	p-F-Ph	H	H	$CH(CH_3)_2$	^{n}Bu	H	CH_3	OH	OH	H	H	NH_2
II-37-4	p-F-Ph	H	H	$CH_2CH(CH_3)_2$	^{n}Bu	H	CH_3	OH	OH	H	H	NH_2
II-37-5	p-F-Ph	H	H	CH_2Ph	^{n}Bu	H	CH_3	OH	OH	H	H	NH_2
II-37-6	p-F-Ph	H	H	CH_2-indol-3-yl	^{n}Bu	H	CH_3	OH	OH	H	H	NH_2
II-37-7	p-F-Ph	H	H	$CH_2CH_2SCH_3$	^{n}Bu	H	CH_3	OH	OH	H	H	NH_2
II-37-8	p-F-Ph	*	H	*	^{n}Bu	H	CH_3	OH	OH	H	H	NH_2

*R^2 and R^{3b} joined together by $(CH_2)_3$ to form five-membered ring.

Table II-38.

№	R^1	R^2	R^{3a}	R^{3b}	R^4	R^5	R^6	X	Y	R^7	R^8	R^9
II-38-1	p-Cl-Ph	H	H	H	^{n}Bu	H	CH_3	OH	OH	H	H	NH_2
II-38-2	p-Cl-Ph	H	H	CH_3	^{n}Bu	H	CH_3	OH	OH	H	H	NH_2
II-38-3	p-Cl-Ph	H	H	$CH(CH_3)_2$	^{n}Bu	H	CH_3	OH	OH	H	H	NH_2
II-38-4	p-Cl-Ph	H	H	$CH_2CH(CH_3)_2$	^{n}Bu	H	CH_3	OH	OH	H	H	NH_2
II-38-5	p-Cl-Ph	H	H	CH_2Ph	^{n}Bu	H	CH_3	OH	OH	H	H	NH_2
II-38-6	p-Cl-Ph	H	H	CH_2-indol-3-yl	^{n}Bu	H	CH_3	OH	OH	H	H	NH_2
II-38-7	p-Cl-Ph	H	H	$CH_2CH_2SCH_3$	^{n}Bu	H	CH_3	OH	OH	H	H	NH_2
II-38-8	p-Cl-Ph	*	H	*	^{n}Bu	H	CH_3	OH	OH	H	H	NH_2

*R^2 and R^{3b} joined together by $(CH_2)_3$ to form five-membered ring.

Table II-39.

№	R^1	R^2	R^{3a}	R^{3b}	R^4	R^5	R^6	X	Y	R^7	R^8	R^9
II-39-1	p-Br-Ph	H	H	H	^{n}Bu	H	CH_3	OH	OH	H	H	NH_2
II-39-2	p-Br-Ph	H	H	CH_3	^{n}Bu	H	CH_3	OH	OH	H	H	NH_2
II-39-3	p-Br-Ph	H	H	$CH(CH_3)_2$	^{n}Bu	H	CH_3	OH	OH	H	H	NH_2
II-39-4	p-Br-Ph	H	H	$CH_2CH(CH_3)_2$	^{n}Bu	H	CH_3	OH	OH	H	H	NH_2
II-39-5	p-Br-Ph	H	H	CH_2Ph	^{n}Bu	H	CH_3	OH	OH	H	H	NH_2
II-39-6	p-Br-Ph	H	H	CH_2-indol-3-yl	^{n}Bu	H	CH_3	OH	OH	H	H	NH_2
II-39-7	p-Br-Ph	H	H	$CH_2CH_2SCH_3$	^{n}Bu	H	CH_3	OH	OH	H	H	NH_2
II-39-8	p-Br-Ph	*	H	*	^{n}Bu	H	CH_3	OH	OH	H	H	NH_2

*R^2 and R^{3b} joined together by $(CH_2)_3$ to form five-membered ring.

Gilead Exhibit 2023
PGR2023-00046 - Page 00120

Table II-40.

№	R^1	R^2	R^{3a}	R^{3b}	R^4	R^5	R^6	X	Y	R^7	R^8	R^9
II-40-1	p-I-Ph	H	H	H	^{n}Bu	H	CH_3	OH	OH	H	H	NH_2
II-40-2	p-I-Ph	H	H	CH_3	^{n}Bu	H	CH_3	OH	OH	H	H	NH_2
II-40-3	p-I-Ph	H	H	$CH(CH_3)_2$	^{n}Bu	H	CH_3	OH	OH	H	H	NH_2
II-40-4	p-I-Ph	H	H	$CH_2CH(CH_3)_2$	^{n}Bu	H	CH_3	OH	OH	H	H	NH_2
II-40-5	p-I-Ph	H	H	CH_2Ph	^{n}Bu	H	CH_3	OH	OH	H	H	NH_2
II-40-6	p-I-Ph	H	H	CH_2-indol-3-yl	^{n}Bu	H	CH_3	OH	OH	H	H	NH_2
II-40-7	p-I-Ph	H	H	$CH_2CH_2SCH_3$	^{n}Bu	H	CH_3	OH	OH	H	H	NH_2
II-40-8	p-I-Ph	*	H	*	^{n}Bu	H	CH_3	OH	OH	H	H	NH_2

*R^2 and R^{3b} joined together by $(CH_2)_3$ to form five-membered ring.

Table II-41.

№	R^1	R^2	R^{3a}	R^{3b}	R^4	R^5	R^6	X	Y	R^7	R^8	R^9
II-41-1	CH_3	H	H	H	Bz	H	CH_3	OH	OH	H	H	NH_2
II-41-2	CH_3	H	H	CH_3	Bz	H	CH_3	OH	OH	H	H	NH_2
II-41-3	CH_3	H	H	$CH(CH_3)_2$	Bz	H	CH_3	OH	OH	H	H	NH_2
II-41-4	CH_3	H	H	$CH_2CH(CH_3)_2$	Bz	H	CH_3	OH	OH	H	H	NH_2
II-41-5	CH_3	H	H	CH_2Ph	Bz	H	CH_3	OH	OH	H	H	NH_2
II-41-6	CH_3	H	H	CH_2-indol-3-yl	Bz	H	CH_3	OH	OH	H	H	NH_2
II-41-7	CH_3	H	H	$CH_2CH_2SCH_3$	Bz	H	CH_3	OH	OH	H	H	NH_2
II-41-8	CH_3	*	H	*	Bz	H	CH_3	OH	OH	H	H	NH_2

*R^2 and R^{3b} joined together by $(CH_2)_3$ to form five-membered ring.

Table II-42.

№	R^1	R^2	R^{3a}	R^{3b}	R^4	R^5	R^6	X	Y	R^7	R^8	R^9
II-42-1	Et	H	H	H	Bz	H	CH_3	OH	OH	H	H	NH_2
II-42-2	Et	H	H	CH_3	Bz	H	CH_3	OH	OH	H	H	NH_2
II-42-3	Et	H	H	$CH(CH_3)_2$	Bz	H	CH_3	OH	OH	H	H	NH_2
II-42-4	Et	H	H	$CH_2CH(CH_3)_2$	Bz	H	CH_3	OH	OH	H	H	NH_2
II-42-5	Et	H	H	CH_2Ph	Bz	H	CH_3	OH	OH	H	H	NH_2
II-42-6	Et	H	H	CH_2-indol-3-yl	Bz	H	CH_3	OH	OH	H	H	NH_2
II-42-7	Et	H	H	$CH_2CH_2SCH_3$	Bz	H	CH_3	OH	OH	H	H	NH_2
II-42-8	Et	*	H	*	Bz	H	CH_3	OH	OH	H	H	NH_2

*R^2 and R^{3b} joined together by $(CH_2)_3$ to form five-membered ring.

Gilead Exhibit 2023
PGR2023-00046 - Page 00121

Table II-43.

№	R^1	R^2	R^{3a}	R^{3b}	R^4	R^5	R^6	X	Y	R^7	R^8	R^9
II-43-1	^{i}Pr	H	H	H	Bz	H	CH_3	OH	OH	H	H	NH_2
II-43-2	^{i}Pr	H	H	CH_3	Bz	H	CH_3	OH	OH	H	H	NH_2
II-43-3	^{i}Pr	H	H	$CH(CH_3)_2$	Bz	H	CH_3	OH	OH	H	H	NH_2
II-43-4	^{i}Pr	H	H	$CH_2CH(CH_3)_2$	Bz	H	CH_3	OH	OH	H	H	NH_2
II-43-5	^{i}Pr	H	H	CH_2Ph	Bz	H	CH_3	OH	OH	H	H	NH_2
II-43-6	^{i}Pr	H	H	CH_2-indol-3-yl	Bz	H	CH_3	OH	OH	H	H	NH_2
II-43-7	^{i}Pr	H	H	$CH_2CH_2SCH_3$	Bz	H	CH_3	OH	OH	H	H	NH_2
II-43-8	^{i}Pr	*	H	*	Bz	H	CH_3	OH	OH	H	H	NH_2

*R^2 and R^{3b} joined together by $(CH_2)_3$ to form five-membered ring.

Table II-44.

№	R^1	R^2	R^{3a}	R^{3b}	R^4	R^5	R^6	X	Y	R^7	R^8	R^9
II-44-1	^{t}Bu	H	H	H	Bz	H	CH_3	OH	OH	H	H	NH_2
II-44-2	^{t}Bu	H	H	CH_3	Bz	H	CH_3	OH	OH	H	H	NH_2
II-44-3	^{t}Bu	H	H	$CH(CH_3)_2$	Bz	H	CH_3	OH	OH	H	H	NH_2
II-44-4	^{t}Bu	H	H	$CH_2CH(CH_3)_2$	Bz	H	CH_3	OH	OH	H	H	NH_2
II-44-5	^{t}Bu	H	H	CH_2Ph	Bz	H	CH_3	OH	OH	H	H	NH_2
II-44-6	^{t}Bu	H	H	CH_2-indol-3-yl	Bz	H	CH_3	OH	OH	H	H	NH_2
II-44-7	^{t}Bu	H	H	$CH_2CH_2SCH_3$	Bz	H	CH_3	OH	OH	H	H	NH_2
II-44-8	^{t}Bu	*	H	*	Bz	H	CH_3	OH	OH	H	H	NH_2

*R^2 and R^{3b} joined together by $(CH_2)_3$ to form five-membered ring.

Table II-45.

№	R^1	R^2	R^{3a}	R^{3b}	R^4	R^5	R^6	X	Y	R^7	R^8	R^9
II-45-1	Ph	H	H	H	Bz	H	CH_3	OH	OH	H	H	NH_2
II-45-2	Ph	H	H	CH_3	Bz	H	CH_3	OH	OH	H	H	NH_2
II-45-3	Ph	H	H	$CH(CH_3)_2$	Bz	H	CH_3	OH	OH	H	H	NH_2
II-45-4	Ph	H	H	$CH_2CH(CH_3)_2$	Bz	H	CH_3	OH	OH	H	H	NH_2
II-45-5	Ph	H	H	CH_2Ph	Bz	H	CH_3	OH	OH	H	H	NH_2
II-45-6	Ph	H	H	CH_2-indol-3-yl	Bz	H	CH_3	OH	OH	H	H	NH_2
II-45-7	Ph	H	H	$CH_2CH_2SCH_3$	Bz	H	CH_3	OH	OH	H	H	NH_2
II-45-8	Ph	*	H	*	Bz	H	CH_3	OH	OH	H	H	NH_2

Gilead Exhibit 2023
PGR2023-00046 - Page 00122

*R^2 and R^{3b} joined together by $(CH_2)_3$ to form five-membered ring.

Table II-46.

№	R^1	R^2	R^{3a}	R^{3b}	R^4	R^5	R^6	X	Y	R^7	R^8	R^9
II-46-1	p-Me-Ph	H	H	H	Bz	H	CH_3	OH	OH	H	H	NH_2
II-46-2	p-Me-Ph	H	H	CH_3	Bz	H	CH_3	OH	OH	H	H	NH_2
II-46-3	p-Me-Ph	H	H	$CH(CH_3)_2$	Bz	H	CH_3	OH	OH	H	H	NH_2
II-46-4	p-Me-Ph	H	H	$CH_2CH(CH_3)_2$	Bz	H	CH_3	OH	OH	H	H	NH_2
II-46-5	p-Me-Ph	H	H	CH_2Ph	Bz	H	CH_3	OH	OH	H	H	NH_2
II-46-6	p-Me-Ph	H	H	CH_2-indol-3-yl	Bz	H	CH_3	OH	OH	H	H	NH_2
II-46-7	p-Me-Ph	H	H	$CH_2CH_2SCH_3$	Bz	H	CH_3	OH	OH	H	H	NH_2
II-46-8	p-Me-Ph	*	H	*	Bz	H	CH_3	OH	OH	H	H	NH_2

*R^2 and R^{3b} joined together by $(CH_2)_3$ to form five-membered ring.

Table II-47.

№	R^1	R^2	R^{3a}	R^{3b}	R^4	R^5	R^6	X	Y	R^7	R^8	R^9
II-47-1	p-F-Ph	H	H	H	Bz	H	CH_3	OH	OH	H	H	NH_2
II-47-2	p-F-Ph	H	H	CH_3	Bz	H	CH_3	OH	OH	H	H	NH_2
II-47-3	p-F-Ph	H	H	$CH(CH_3)_2$	Bz	H	CH_3	OH	OH	H	H	NH_2
II-47-4	p-F-Ph	H	H	$CH_2CH(CH_3)_2$	Bz	H	CH_3	OH	OH	H	H	NH_2
II-47-5	p-F-Ph	H	H	CH_2Ph	Bz	H	CH_3	OH	OH	H	H	NH_2
II-47-6	p-F-Ph	H	H	CH_2-indol-3-yl	Bz	H	CH_3	OH	OH	H	H	NH_2
II-47-7	p-F-Ph	H	H	$CH_2CH_2SCH_3$	Bz	H	CH_3	OH	OH	H	H	NH_2
II-47-8	p-F-Ph	*	H	*	Bz	H	CH_3	OH	OH	H	H	NH_2

*R^2 and R^{3b} joined together by $(CH_2)_3$ to form five-membered ring.

Table II-48.

№	R^1	R^2	R^{3a}	R^{3b}	R^4	R^5	R^6	X	Y	R^7	R^8	R^9
II-48-1	p-Cl-Ph	H	H	H	Bz	H	CH_3	OH	OH	H	H	NH_2
II-48-2	p-Cl-Ph	H	H	CH_3	Bz	H	CH_3	OH	OH	H	H	NH_2
II-48-3	p-Cl-Ph	H	H	$CH(CH_3)_2$	Bz	H	CH_3	OH	OH	H	H	NH_2
II-48-4	p-Cl-Ph	H	H	$CH_2CH(CH_3)_2$	Bz	H	CH_3	OH	OH	H	H	NH_2
II-48-5	p-Cl-Ph	H	H	CH_2Ph	Bz	H	CH_3	OH	OH	H	H	NH_2
II-48-6	p-Cl-Ph	H	H	CH_2-indol-3-yl	Bz	H	CH_3	OH	OH	H	H	NH_2
II-48-7	p-Cl-Ph	H	H	$CH_2CH_2SCH_3$	Bz	H	CH_3	OH	OH	H	H	NH_2

Gilead Exhibit 2023
PGR2023-00046 - Page 00123

№	R^1	R^2	R^{3a}	R^{3b}	R^4	R^5	R^6	X	Y	R^7	R^8	R^9
II-48-8	p-Cl-Ph	*	H	*	Bz	H	CH_3	OH	OH	H	H	NH_2

*R^2 and R^{3b} joined together by $(CH_2)_3$ to form five-membered ring.

Table II-49.

№	R^1	R^2	R^{3a}	R^{3b}	R^4	R^5	R^6	X	Y	R^7	R^8	R^9
II-49-1	p-Br-Ph	H	H	H	Bz	H	CH_3	OH	OH	H	H	NH_2
II-49-2	p-Br-Ph	H	H	CH_3	Bz	H	CH_3	OH	OH	H	H	NH_2
II-49-3	p-Br-Ph	H	H	$CH(CH_3)_2$	Bz	H	CH_3	OH	OH	H	H	NH_2
II-49-4	p-Br-Ph	H	H	$CH_2CH(CH_3)_2$	Bz	H	CH_3	OH	OH	H	H	NH_2
II-49-5	p-Br-Ph	H	H	CH_2Ph	Bz	H	CH_3	OH	OH	H	H	NH_2
II-49-6	p-Br-Ph	H	H	CH_2-indol-3-yl	Bz	H	CH_3	OH	OH	H	H	NH_2
II-49-7	p-Br-Ph	H	H	$CH_2CH_2SCH_3$	Bz	H	CH_3	OH	OH	H	H	NH_2
II-49-8	p-Br-Ph	*	H	*	Bz	H	CH_3	OH	OH	H	H	NH_2

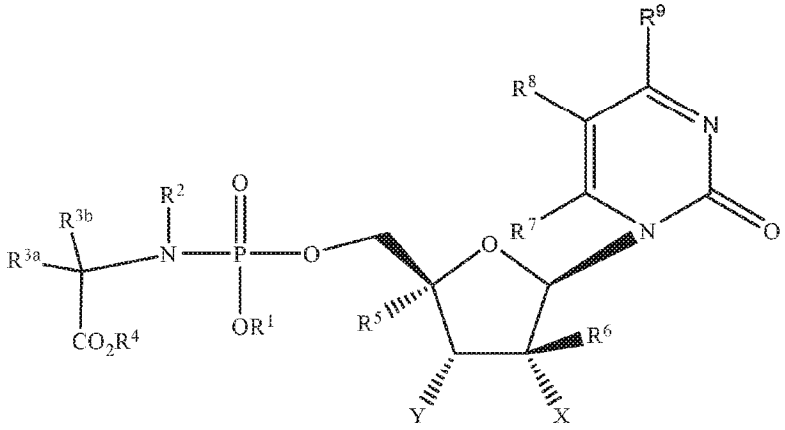
*R^2 and R^{3b} joined together by $(CH_2)_3$ to form five-membered ring.

Table II-50.

№	R^1	R^2	R^{3a}	R^{3b}	R^4	R^5	R^6	X	Y	R^7	R^8	R^9
II-50-1	p-I-Ph	H	H	H	Bz	H	CH_3	OH	OH	H	H	NH_2
II-50-2	p-I-Ph	H	H	CH_3	Bz	H	CH_3	OH	OH	H	H	NH_2
II-50-3	p-I-Ph	H	H	$CH(CH_3)_2$	Bz	H	CH_3	OH	OH	H	H	NH_2
II-50-4	p-I-Ph	H	H	$CH_2CH(CH_3)_2$	Bz	H	CH_3	OH	OH	H	H	NH_2
II-50-5	p-I-Ph	H	H	CH_2Ph	Bz	H	CH_3	OH	OH	H	H	NH_2
II-50-6	p-I-Ph	H	H	CH_2-indol-3-yl	Bz	H	CH_3	OH	OH	H	H	NH_2
II-50-7	p-I-Ph	H	H	$CH_2CH_2SCH_3$	Bz	H	CH_3	OH	OH	H	H	NH_2
II-50-8	p-I-Ph	*	H	*	Bz	H	CH_3	OH	OH	H	H	NH_2

*R^2 and R^{3b} joined together by $(CH_2)_3$ to form five-membered ring.

Gilead Exhibit 2023
PGR2023-00046 - Page 00124



III

Table III-1.

№	R^1	R^2	R^{3a}	R^{3b}	R^4	R^5	R^6	X	Y	R^7	R^8	R^9
III-1-1	CH_3	H	H	H	CH_3	H	CH_3	F	OH	H	H	NH_2
III-1-2	CH_3	H	H	CH_3	CH_3	H	CH_3	F	OH	H	H	NH_2
III-1-3	CH_3	H	H	$CH(CH_3)_2$	CH_3	H	CH_3	F	OH	H	H	NH_2
III-1-4	CH_3	H	H	$CH_2CH(CH_3)_2$	CH_3	H	CH_3	F	OH	H	H	NH_2
III-1-5	CH_3	H	H	CH_2Ph	CH_3	H	CH_3	F	OH	H	H	NH_2
III-1-6	CH_3	H	H	CH_2-indol-3-yl	CH_3	H	CH_3	F	OH	H	H	NH_2
III-1-7	CH_3	H	H	$CH_2CH_2SCH_3$	CH_3	H	CH_3	F	OH	H	H	NH_2
III-1-8	CH_3	*	H	*	CH_3	H	CH_3	F	OH	H	H	NH_2

*R^2 and R^{3b} joined together by $(CH_2)_3$ to form five-membered ring.

Table III-2.

№	R^1	R^2	R^{3a}	R^{3b}	R^4	R^5	R^6	X	Y	R^7	R^8	R^9
III-2-1	Et	H	H	H	CH_3	H	CH_3	F	OH	H	H	NH_2
III-2-2	Et	H	H	CH_3	CH_3	H	CH_3	F	OH	H	H	NH_2
III-2-3	Et	H	H	$CH(CH_3)_2$	CH_3	H	CH_3	F	OH	H	H	NH_2
III-2-4	Et	H	H	$CH_2CH(CH_3)_2$	CH_3	H	CH_3	F	OH	H	H	NH_2
III-2-5	Et	H	H	CH_2Ph	CH_3	H	CH_3	F	OH	H	H	NH_2
III-2-6	Et	H	H	CH_2-indol-3-yl	CH_3	H	CH_3	F	OH	H	H	NH_2
III-2-7	Et	H	H	$CH_2CH_2SCH_3$	CH_3	H	CH_3	F	OH	H	H	NH_2
III-2-8	Et	*	H	*	CH_3	H	CH_3	F	OH	H	H	NH_2

*R^2 and R^{3b} joined together by $(CH_2)_3$ to form five-membered ring.

Gilead Exhibit 2023
PGR2023-00046 - Page 00125

Table III-3.

№	R^1	R^2	R^{3a}	R^{3b}	R^4	R^5	R^6	X	Y	R^7	R^8	R^9
III-3-1	^{i}Pr	H	H	H	CH_3	H	CH_3	F	OH	H	H	NH_2
III-3-2	^{i}Pr	H	H	CH_3	CH_3	H	CH_3	F	OH	H	H	NH_2
III-3-3	^{i}Pr	H	H	$CH(CH_3)_2$	CH_3	H	CH_3	F	OH	H	H	NH_2
III-3-4	^{i}Pr	H	H	$CH_2CH(CH_3)_2$	CH_3	H	CH_3	F	OH	H	H	NH_2
III-3-5	^{i}Pr	H	H	CH_2Ph	CH_3	H	CH_3	F	OH	H	H	NH_2
III-3-6	^{i}Pr	H	H	CH_2-indol-3-yl	CH_3	H	CH_3	F	OH	H	H	NH_2
III-3-7	^{i}Pr	H	H	$CH_2CH_2SCH_3$	CH_3	H	CH_3	F	OH	H	H	NH_2
III-3-8	^{i}Pr	*	H	*	CH_3	H	CH_3	F	OH	H	H	NH_2

*R^2 and R^{3b} joined together by $(CH_2)_3$ to form five-membered ring.

Table III-4.

№	R^1	R^2	R^{3a}	R^{3b}	R^4	R^5	R^6	X	Y	R^7	R^8	R^9
III-4-1	^{t}Bu	H	H	H	CH_3	H	CH_3	F	OH	H	H	NH_2
III-4-2	^{t}Bu	H	H	CH_3	CH_3	H	CH_3	F	OH	H	H	NH_2
III-4-3	^{t}Bu	H	H	$CH(CH_3)_2$	CH_3	H	CH_3	F	OH	H	H	NH_2
III-4-4	^{t}Bu	H	H	$CH_2CH(CH_3)_2$	CH_3	H	CH_3	F	OH	H	H	NH_2
III-4-5	^{t}Bu	H	H	CH_2Ph	CH_3	H	CH_3	F	OH	H	H	NH_2
III-4-6	^{t}Bu	H	H	CH_2-indol-3-yl	CH_3	H	CH_3	F	OH	H	H	NH_2
III-4-7	^{t}Bu	H	H	$CH_2CH_2SCH_3$	CH_3	H	CH_3	F	OH	H	H	NH_2
III-4-8	^{t}Bu	*	H	*	CH_3	H	CH_3	F	OH	H	H	NH_2

*R^2 and R^{3b} joined together by $(CH_2)_3$ to form five-membered ring.

Table III-5.

№	R^1	R^2	R^{3a}	R^{3b}	R^4	R^5	R^6	X	Y	R^7	R^8	R^9
III-5-1	Ph	H	H	H	CH_3	H	CH_3	F	OH	H	H	NH_2
III-5-2	Ph	H	H	CH_3	CH_3	H	CH_3	F	OH	H	H	NH_2
III-5-3	Ph	H	H	$CH(CH_3)_2$	CH_3	H	CH_3	F	OH	H	H	NH_2
III-5-4	Ph	H	H	$CH_2CH(CH_3)_2$	CH_3	H	CH_3	F	OH	H	H	NH_2
III-5-5	Ph	H	H	CH_2Ph	CH_3	H	CH_3	F	OH	H	H	NH_2
III-5-6	Ph	H	H	CH_2-indol-3-yl	CH_3	H	CH_3	F	OH	H	H	NH_2
III-5-7	Ph	H	H	$CH_2CH_2SCH_3$	CH_3	H	CH_3	F	OH	H	H	NH_2
III-5-8	Ph	*	H	*	CH_3	H	CH_3	F	OH	H	H	NH_2

*R^2 and R^{3b} joined together by $(CH_2)_3$ to form five-membered ring.

Gilead Exhibit 2023
PGR2023-00046 - Page 00126

Table III-6.

№	R^1	R^2	R^{3a}	R^{3b}	R^4	R^5	R^6	X	Y	R^7	R^8	R^9
III-6-1	p-Me-Ph	H	H	H	CH_3	H	CH_3	F	OH	H	H	NH_2
III-6-2	p-Me-Ph	H	H	CH_3	CH_3	H	CH_3	F	OH	H	H	NH_2
III-6-3	p-Me-Ph	H	H	$CH(CH_3)_2$	CH_3	H	CH_3	F	OH	H	H	NH_2
III-6-4	p-Me-Ph	H	H	$CH_2CH(CH_3)_2$	CH_3	H	CH_3	F	OH	H	H	NH_2
III-6-5	p-Me-Ph	H	H	CH_2Ph	CH_3	H	CH_3	F	OH	H	H	NH_2
III-6-6	p-Me-Ph	H	H	CH_2-indol-3-yl	CH_3	H	CH_3	F	OH	H	H	NH_2
III-6-7	p-Me-Ph	H	H	$CH_2CH_2SCH_3$	CH_3	H	CH_3	F	OH	H	H	NH_2
III-6-8	p-Me-Ph	*	H	*	CH_3	H	CH_3	F	OH	H	H	NH_2

*R^2 and R^{3b} joined together by $(CH_2)_3$ to form five-membered ring.

Table III-7.

№	R^1	R^2	R^{3a}	R^{3b}	R^4	R^5	R^6	X	Y	R^7	R^8	R^9
III-7-1	p-F-Ph	H	H	H	CH_3	H	CH_3	F	OH	H	H	NH_2
III-7-2	p-F-Ph	H	H	CH_3	CH_3	H	CH_3	F	OH	H	H	NH_2
III-7-3	p-F-Ph	H	H	$CH(CH_3)_2$	CH_3	H	CH_3	F	OH	H	H	NH_2
III-7-4	p-F-Ph	H	H	$CH_2CH(CH_3)_2$	CH_3	H	CH_3	F	OH	H	H	NH_2
III-7-6	p-F-Ph	H	H	CH_2Ph	CH_3	H	CH_3	F	OH	H	H	NH_2
III-7-7	p-F-Ph	H	H	CH_2-indol-3-yl	CH_3	H	CH_3	F	OH	H	H	NH_2
III-7-8	p-F-Ph	H	H	$CH_2CH_2SCH_3$	CH_3	H	CH_3	F	OH	H	H	NH_2
III-7-20	p-F-Ph	*	H	*	CH_3	H	CH_3	F	OH	H	H	NH_2

*R^2 and R^{3b} joined together by $(CH_2)_3$ to form five-membered ring.

Table III-8.

№	R^1	R^2	R^{3a}	R^{3b}	R^4	R^5	R^6	X	Y	R^7	R^8	R^9
III-8-1	p-Cl-Ph	H	H	H	CH_3	H	CH_3	F	OH	H	H	NH_2
III-8-2	p-Cl-Ph	H	H	CH_3	CH_3	H	CH_3	F	OH	H	H	NH_2
III-8-3	p-Cl-Ph	H	H	$CH(CH_3)_2$	CH_3	H	CH_3	F	OH	H	H	NH_2
III-8-4	p-Cl-Ph	H	H	$CH_2CH(CH_3)_2$	CH_3	H	CH_3	F	OH	H	H	NH_2
III-8-5	p-Cl-Ph	H	H	CH_2Ph	CH_3	H	CH_3	F	OH	H	H	NH_2
III-8-6	p-Cl-Ph	H	H	CH_2-indol-3-yl	CH_3	H	CH_3	F	OH	H	H	NH_2
III-8-7	p-Cl-Ph	H	H	$CH_2CH_2SCH_3$	CH_3	H	CH_3	F	OH	H	H	NH_2
III-8-8	p-Cl-Ph	*	H	*	CH_3	H	CH_3	F	OH	H	H	NH_2

*R^2 and R^{3b} joined together by $(CH_2)_3$ to form five-membered ring.

Gilead Exhibit 2023
PGR2023-00046 - Page 00127

Table III-9.

№	R^1	R^2	R^{3a}	R^{3b}	R^4	R^5	R^6	X	Y	R^7	R^8	R^9
III-9-1	p-Br-Ph	H	H	H	CH_3	H	CH_3	F	OH	H	H	NH_2
III-9-2	p-Br-Ph	H	H	CH_3	CH_3	H	CH_3	F	OH	H	H	NH_2
III-9-3	p-Br-Ph	H	H	$CH(CH_3)_2$	CH_3	H	CH_3	F	OH	H	H	NH_2
III-9-4	p-Br-Ph	H	H	$CH_2CH(CH_3)_2$	CH_3	H	CH_3	F	OH	H	H	NH_2
III-9-6	p-Br-Ph	H	H	CH_2Ph	CH_3	H	CH_3	F	OH	H	H	NH_2
III-9-7	p-Br-Ph	H	H	CH_2-indol-3-yl	CH_3	H	CH_3	F	OH	H	H	NH_2
III-9-8	p-Br-Ph	H	H	$CH_2CH_2SCH_3$	CH_3	H	CH_3	F	OH	H	H	NH_2
III-9-20	p-Br-Ph	*	H	*	CH_3	H	CH_3	F	OH	H	H	NH_2

*R^2 and R^{3b} joined together by $(CH_2)_3$ to form five-membered ring.

Table III-10.

№	R^1	R^2	R^{3a}	R^{3b}	R^4	R^5	R^6	X	Y	R^7	R^8	R^9
III-10-1	p-I-Ph	H	H	H	CH_3	H	CH_3	F	OH	H	H	NH_2
III-10-2	p-I-Ph	H	H	CH_3	CH_3	H	CH_3	F	OH	H	H	NH_2
III-10-3	p-I-Ph	H	H	$CH(CH_3)_2$	CH_3	H	CH_3	F	OH	H	H	NH_2
III-10-4	p-I-Ph	H	H	$CH_2CH(CH_3)_2$	CH_3	H	CH_3	F	OH	H	H	NH_2
III-10-5	p-I-Ph	H	H	CH_2Ph	CH_3	H	CH_3	F	OH	H	H	NH_2
III-10-6	p-I-Ph	H	H	CH_2-indol-3-yl	CH_3	H	CH_3	F	OH	H	H	NH_2
III-10-7	p-I-Ph	H	H	$CH_2CH_2SCH_3$	CH_3	H	CH_3	F	OH	H	H	NH_2
III-10-8	p-I-Ph	*	H	*	CH_3	H	CH_3	F	OH	H	H	NH_2

*R^2 and R^{3b} joined together by $(CH_2)_3$ to form five-membered ring.

Table III-11.

№	R^1	R^2	R^{3a}	R^{3b}	R^4	R^5	R^6	X	Y	R^7	R^8	R^9
III-11-1	CH_3	H	H	H	Et	H	CH_3	F	OH	H	H	NH_2
III-11-2	CH_3	H	H	CH_3	Et	H	CH_3	F	OH	H	H	NH_2
III-11-3	CH_3	H	H	$CH(CH_3)_2$	Et	H	CH_3	F	OH	H	H	NH_2
III-11-4	CH_3	H	H	$CH_2CH(CH_3)_2$	Et	H	CH_3	F	OH	H	H	NH_2
III-11-5	CH_3	H	H	CH_2Ph	Et	H	CH_3	F	OH	H	H	NH_2
III-11-6	CH_3	H	H	CH_2-indol-3-yl	Et	H	CH_3	F	OH	H	H	NH_2
III-11-7	CH_3	H	H	$CH_2CH_2SCH_3$	Et	H	CH_3	F	OH	H	H	NH_2
III-11-8	CH_3	*	H	*	Et	H	CH_3	F	OH	H	H	NH_2

*R^2 and R^{3b} joined together by $(CH_2)_3$ to form five-membered ring.

Gilead Exhibit 2023
PGR2023-00046 - Page 00128

Table III-12.

№	R^1	R^2	R^{3a}	R^{3b}	R^4	R^5	R^6	X	Y	R^7	R^8	R^9
III-12-1	Et	H	H	H	Et	H	CH_3	F	OH	H	H	NH_2
III-12-2	Et	H	H	CH_3	Et	H	CH_3	F	OH	H	H	NH_2
III-12-3	Et	H	H	$CH(CH_3)_2$	Et	H	CH_3	F	OH	H	H	NH_2
III-12-4	Et	H	H	$CH_2CH(CH_3)_2$	Et	H	CH_3	F	OH	H	H	NH_2
III-12-5	Et	H	H	CH_2Ph	Et	H	CH_3	F	OH	H	H	NH_2
III-12-6	Et	H	H	CH_2-indol-3-yl	Et	H	CH_3	F	OH	H	H	NH_2
III-12-7	Et	H	H	$CH_2CH_2SCH_3$	Et	H	CH_3	F	OH	H	H	NH_2
III-12-8	Et	*	H	*	Et	H	CH_3	F	OH	H	H	NH_2

*R^2 and R^{3b} joined together by $(CH_2)_3$ to form five-membered ring.

Table III-13.

№	R^1	R^2	R^{3a}	R^{3b}	R^4	R^5	R^6	X	Y	R^7	R^8	R^9
III-13-1	^{i}Pr	H	H	H	Et	H	CH_3	F	OH	H	H	NH_2
III-13-2	^{i}Pr	H	H	CH_3	Et	H	CH_3	F	OH	H	H	NH_2
III-13-3	^{i}Pr	H	H	$CH(CH_3)_2$	Et	H	CH_3	F	OH	H	H	NH_2
III-13-4	^{i}Pr	H	H	$CH_2CH(CH_3)_2$	Et	H	CH_3	F	OH	H	H	NH_2
III-13-5	^{i}Pr	H	H	CH_2Ph	Et	H	CH_3	F	OH	H	H	NH_2
III-13-6	^{i}Pr	H	H	CH_2-indol-3-yl	Et	H	CH_3	F	OH	H	H	NH_2
III-13-7	^{i}Pr	H	H	$CH_2CH_2SCH_3$	Et	H	CH_3	F	OH	H	H	NH_2
III-13-8	^{i}Pr	*	H	*	Et	H	CH_3	F	OH	H	H	NH_2

*R^2 and R^{3b} joined together by $(CH_2)_3$ to form five-membered ring.

Table III-14.

№	R^1	R^2	R^{3a}	R^{3b}	R^4	R^5	R^6	X	Y	R^7	R^8	R^9
III-14-1	^{t}Bu	H	H	H	Et	H	CH_3	F	OH	H	H	NH_2
III-14-2	^{t}Bu	H	H	CH_3	Et	H	CH_3	F	OH	H	H	NH_2
III-14-3	^{t}Bu	H	H	$CH(CH_3)_2$	Et	H	CH_3	F	OH	H	H	NH_2
III-14-4	^{t}Bu	H	H	$CH_2CH(CH_3)_2$	Et	H	CH_3	F	OH	H	H	NH_2

Gilead Exhibit 2023
PGR2023-00046 - Page 00129

№	R^1	R^2	R^{3a}	R^{3b}	R^4	R^5	R^6	X	Y	R^7	R^8	R^9
III-14-5	^{t}Bu	H	H	CH_2Ph	Et	H	CH_3	F	OH	H	H	NH_2
III-14-6	^{t}Bu	H	H	CH_2-indol-3-yl	Et	H	CH_3	F	OH	H	H	NH_2
III-14-7	^{t}Bu	H	H	$CH_2CH_2SCH_3$	Et	H	CH_3	F	OH	H	H	NH_2
III-14-8	^{t}Bu	*	H	*	Et	H	CH_3	F	OH	H	H	NH_2

*R^2 and R^{3b} joined together by $(CH_2)_3$ to form five-membered ring.

Table III-15.

№	R^1	R^2	R^{3a}	R^{3b}	R^4	R^5	R^6	X	Y	R^7	R^8	R^9
III-15-1	Ph	H	H	H	Et	H	CH_3	F	OH	H	H	NH_2
III-15-2	Ph	H	H	CH_3	Et	H	CH_3	F	OH	H	H	NH_2
III-15-3	Ph	H	H	$CH(CH_3)_2$	Et	H	CH_3	F	OH	H	H	NH_2
III-15-4	Ph	H	H	$CH_2CH(CH_3)_2$	Et	H	CH_3	F	OH	H	H	NH_2
III-15-5	Ph	H	H	CH_2Ph	Et	H	CH_3	F	OH	H	H	NH_2
III-15-6	Ph	H	H	CH_2-indol-3-yl	Et	H	CH_3	F	OH	H	H	NH_2
III-15-7	Ph	H	H	$CH_2CH_2SCH_3$	Et	H	CH_3	F	OH	H	H	NH_2
III-15-8	Ph	*	H	*	Et	H	CH_3	F	OH	H	H	NH_2

*R^2 and R^{3b} joined together by $(CH_2)_3$ to form five-membered ring.

Table III-16.

№	R^1	R^2	R^{3a}	R^{3b}	R^4	R^5	R^6	X	Y	R^7	R^8	R^9
III-16-1	p-Me-Ph	H	H	H	Et	H	CH_3	F	OH	H	H	NH_2
III-16-2	p-Me-Ph	H	H	CH_3	Et	H	CH_3	F	OH	H	H	NH_2
III-16-3	p-Me-Ph	H	H	$CH(CH_3)_2$	Et	H	CH_3	F	OH	H	H	NH_2
III-16-4	p-Me-Ph	H	H	$CH_2CH(CH_3)_2$	Et	H	CH_3	F	OH	H	H	NH_2
III-16-5	p-Me-Ph	H	H	CH_2Ph	Et	H	CH_3	F	OH	H	H	NH_2
III-16-6	p-Me-Ph	H	H	CH_2-indol-3-yl	Et	H	CH_3	F	OH	H	H	NH_2
III-16-7	p-Me-Ph	H	H	$CH_2CH_2SCH_3$	Et	H	CH_3	F	OH	H	H	NH_2
III-16-8	p-Me-Ph	*	H	*	Et	H	CH_3	F	OH	H	H	NH_2

*R^2 and R^{3b} joined together by $(CH_2)_3$ to form five-membered ring.

Gilead Exhibit 2023
PGR2023-00046 - Page 00130

Table III-17.

№	R^1	R^2	R^{3a}	R^{3b}	R^4	R^5	R^6	X	Y	R^7	R^8	R^9
III-17-1	p-F-Ph	H	H	H	Et	H	CH_3	F	OH	H	H	NH_2
III-17-2	p-F-Ph	H	H	CH_3	Et	H	CH_3	F	OH	H	H	NH_2
III-17-3	p-F-Ph	H	H	$CH(CH_3)_2$	Et	H	CH_3	F	OH	H	H	NH_2
III-17-4	p-F-Ph	H	H	$CH_2CH(CH_3)_2$	Et	H	CH_3	F	OH	H	H	NH_2
III-17-5	p-F-Ph	H	H	CH_2Ph	Et	H	CH_3	F	OH	H	H	NH_2
III-17-6	p-F-Ph	H	H	CH_2-indol-3-yl	Et	H	CH_3	F	OH	H	H	NH_2
III-17-7	p-F-Ph	H	H	$CH_2CH_2SCH_3$	Et	H	CH_3	F	OH	H	H	NH_2
III-17-8	p-F-Ph	*	H	*	Et	H	CH_3	F	OH	H	H	NH_2

*R^2 and R^{3b} joined together by $(CH_2)_3$ to form five-membered ring.

Table III-18.

№	R^1	R^2	R^{3a}	R^{3b}	R^4	R^5	R^6	X	Y	R^7	R^8	R^9
III-18-1	p-Cl-Ph	H	H	H	Et	H	CH_3	F	OH	H	H	NH_2
III-18-2	p-Cl-Ph	H	H	CH_3	Et	H	CH_3	F	OH	H	H	NH_2
III-18-3	p-Cl-Ph	H	H	$CH(CH_3)_2$	Et	H	CH_3	F	OH	H	H	NH_2
III-18-4	p-Cl-Ph	H	H	$CH_2CH(CH_3)_2$	Et	H	CH_3	F	OH	H	H	NH_2
III-18-5	p-Cl-Ph	H	H	CH_2Ph	Et	H	CH_3	F	OH	H	H	NH_2
III-18-6	p-Cl-Ph	H	H	CH_2-indol-3-yl	Et	H	CH_3	F	OH	H	H	NH_2
III-18-7	p-Cl-Ph	H	H	$CH_2CH_2SCH_3$	Et	H	CH_3	F	OH	H	H	NH_2
III-18-8	p-Cl-Ph	*	H	*	Et	H	CH_3	F	OH	H	H	NH_2

*R^2 and R^{3b} joined together by $(CH_2)_3$ to form five-membered ring.

Table III-19.

№	R^1	R^2	R^{3a}	R^{3b}	R^4	R^5	R^6	X	Y	R^7	R^8	R^9
III-19-1	p-Br-Ph	H	H	H	Et	H	CH_3	F	OH	H	H	NH_2
III-19-2	p-Br-Ph	H	H	CH_3	Et	H	CH_3	F	OH	H	H	NH_2
III-19-3	p-Br-Ph	H	H	$CH(CH_3)_2$	Et	H	CH_3	F	OH	H	H	NH_2
III-19-4	p-Br-Ph	H	H	$CH_2CH(CH_3)_2$	Et	H	CH_3	F	OH	H	H	NH_2
III-19-5	p-Br-Ph	H	H	CH_2Ph	Et	H	CH_3	F	OH	H	H	NH_2
III-19-6	p-Br-Ph	H	H	CH_2-indol-3-yl	Et	H	CH_3	F	OH	H	H	NH_2
III-19-7	p-Br-Ph	H	H	$CH_2CH_2SCH_3$	Et	H	CH_3	F	OH	H	H	NH_2
III-19-8	p-Br-Ph	*	H	*	Et	H	CH_3	F	OH	H	H	NH_2

*R^2 and R^{3b} joined together by $(CH_2)_3$ to form five-membered ring.

Gilead Exhibit 2023
PGR2023-00046 - Page 00131

Table III-20.

№	R^1	R^2	R^{3a}	R^{3b}	R^4	R^5	R^6	X	Y	R^7	R^8	R^9
III-20-1	p-I-Ph	H	H	H	Et	H	CH_3	F	OH	H	H	NH_2
III-20-2	p-I-Ph	H	H	CH_3	Et	H	CH_3	F	OH	H	H	NH_2
III-20-3	p-I-Ph	H	H	$CH(CH_3)_2$	Et	H	CH_3	F	OH	H	H	NH_2
III-20-4	p-I-Ph	H	H	$CH_2CH(CH_3)_2$	Et	H	CH_3	F	OH	H	H	NH_2
III-20-5	p-I-Ph	H	H	CH_2Ph	Et	H	CH_3	F	OH	H	H	NH_2
III-20-6	p-I-Ph	H	H	CH_2-indol-3-yl	Et	H	CH_3	F	OH	H	H	NH_2
III-20-7	p-I-Ph	H	H	$CH_2CH_2SCH_3$	Et	H	CH_3	F	OH	H	H	NH_2
III-20-8	p-I-Ph	*	H	*	Et	H	CH_3	F	OH	H	H	NH_2

*R^2 and R^{3b} joined together by $(CH_2)_3$ to form five-membered ring.

Table III-21.

№	R^1	R^2	R^{3a}	R^{3b}	R^4	R^5	R^6	X	Y	R^7	R^8	R^9
III-21-1	CH_3	H	H	H	^{i}Pr	H	CH_3	F	OH	H	H	NH_2
III-21-2	CH_3	H	H	CH_3	^{i}Pr	H	CH_3	F	OH	H	H	NH_2
III-21-3	CH_3	H	H	$CH(CH_3)_2$	^{i}Pr	H	CH_3	F	OH	H	H	NH_2
III-21-4	CH_3	H	H	$CH_2CH(CH_3)_2$	^{i}Pr	H	CH_3	F	OH	H	H	NH_2
III-21-5	CH_3	H	H	CH_2Ph	^{i}Pr	H	CH_3	F	OH	H	H	NH_2
III-21-6	CH_3	H	H	CH_2-indol-3-yl	^{i}Pr	H	CH_3	F	OH	H	H	NH_2
III-21-7	CH_3	H	H	$CH_2CH_2SCH_3$	^{i}Pr	H	CH_3	F	OH	H	H	NH_2
III-21-8	CH_3	*	H	*	^{i}Pr	H	CH_3	F	OH	H	H	NH_2

*R^2 and R^{3b} joined together by $(CH_2)_3$ to form five-membered ring.

Table III-22.

№	R^1	R^2	R^{3a}	R^{3b}	R^4	R^5	R^6	X	Y	R^7	R^8	R^9
III-22-1	Et	H	H	H	^{i}Pr	H	CH_3	F	OH	H	H	NH_2
III-22-2	Et	H	H	CH_3	^{i}Pr	H	CH_3	F	OH	H	H	NH_2
III-22-3	Et	H	H	$CH(CH_3)_2$	^{i}Pr	H	CH_3	F	OH	H	H	NH_2
III-22-4	Et	H	H	$CH_2CH(CH_3)_2$	^{i}Pr	H	CH_3	F	OH	H	H	NH_2
III-22-5	Et	H	H	CH_2Ph	^{i}Pr	H	CH_3	F	OH	H	H	NH_2
III-22-6	Et	H	H	CH_2-indol-3-yl	^{i}Pr	H	CH_3	F	OH	H	H	NH_2
III-22-7	Et	H	H	$CH_2CH_2SCH_3$	^{i}Pr	H	CH_3	F	OH	H	H	NH_2
III-22-8	Et	*	H	*	^{i}Pr	H	CH_3	F	OH	H	H	NH_2

*R^2 and R^{3b} joined together by $(CH_2)_3$ to form five-membered ring.

Gilead Exhibit 2023
PGR2023-00046 - Page 00132

Table III-23.

№	R^1	R^2	R^{3a}	R^{3b}	R^4	R^5	R^6	X	Y	R^7	R^8	R^9
III-23-1	^{i}Pr	H	H	H	^{i}Pr	H	CH_3	F	OH	H	H	NH_2
III-23-2	^{i}Pr	H	H	CH_3	^{i}Pr	H	CH_3	F	OH	H	H	NH_2
III-23-3	^{i}Pr	H	H	$CH(CH_3)_2$	^{i}Pr	H	CH_3	F	OH	H	H	NH_2
III-23-4	^{i}Pr	H	H	$CH_2CH(CH_3)_2$	^{i}Pr	H	CH_3	F	OH	H	H	NH_2
III-23-5	^{i}Pr	H	H	CH_2Ph	^{i}Pr	H	CH_3	F	OH	H	H	NH_2
III-23-6	^{i}Pr	H	H	CH_2-indol-3-yl	^{i}Pr	H	CH_3	F	OH	H	H	NH_2
III-23-7	^{i}Pr	H	H	$CH_2CH_2SCH_3$	^{i}Pr	H	CH_3	F	OH	H	H	NH_2
III-23-8	^{i}Pr	*	H	*	^{i}Pr	H	CH_3	F	OH	H	H	NH_2

*R^2 and R^{3b} joined together by $(CH_2)_3$ to form five-membered ring.

Table III-24.

№	R^1	R^2	R^{3a}	R^{3b}	R^4	R^5	R^6	X	Y	R^7	R^8	R^9
III-24-1	^{t}Bu	H	H	H	^{i}Pr	H	CH_3	F	OH	H	H	NH_2
III-24-2	^{t}Bu	H	H	CH_3	^{i}Pr	H	CH_3	F	OH	H	H	NH_2
III-24-3	^{t}Bu	H	H	$CH(CH_3)_2$	^{i}Pr	H	CH_3	F	OH	H	H	NH_2
III-24-4	^{t}Bu	H	H	$CH_2CH(CH_3)_2$	^{i}Pr	H	CH_3	F	OH	H	H	NH_2
III-24-5	^{t}Bu	H	H	CH_2Ph	^{i}Pr	H	CH_3	F	OH	H	H	NH_2
III-24-6	^{t}Bu	H	H	CH_2-indol-3-yl	^{i}Pr	H	CH_3	F	OH	H	H	NH_2
III-24-7	^{t}Bu	H	H	$CH_2CH_2SCH_3$	^{i}Pr	H	CH_3	F	OH	H	H	NH_2
III-24-8	^{t}Bu	*	H	*	^{i}Pr	H	CH_3	F	OH	H	H	NH_2

*R^2 and R^{3b} joined together by $(CH_2)_3$ to form five-membered ring.

Table III-25.

№	R^1	R^2	R^{3a}	R^{3b}	R^4	R^5	R^6	X	Y	R^7	R^8	R^9
III-25-1	Ph	H	H	H	^{i}Pr	H	CH_3	F	OH	H	H	NH_2
III-25-2	Ph	H	H	CH_3	^{i}Pr	H	CH_3	F	OH	H	H	NH_2
III-25-3	Ph	H	H	$CH(CH_3)_2$	^{i}Pr	H	CH_3	F	OH	H	H	NH_2
III-25-4	Ph	H	H	$CH_2CH(CH_3)_2$	^{i}Pr	H	CH_3	F	OH	H	H	NH_2
III-25-5	Ph	H	H	CH_2Ph	^{i}Pr	H	CH_3	F	OH	H	H	NH_2
III-25-6	Ph	H	H	CH_2-indol-3-yl	^{i}Pr	H	CH_3	F	OH	H	H	NH_2
III-25-7	Ph	H	H	$CH_2CH_2SCH_3$	^{i}Pr	H	CH_3	F	OH	H	H	NH_2
III-25-8	Ph	*	H	*	^{i}Pr	H	CH_3	F	OH	H	H	NH_2

*R^2 and R^{3b} joined together by $(CH_2)_3$ to form five-membered ring.

Gilead Exhibit 2023
PGR2023-00046 - Page 00133

Table III-26.

№	R^1	R^2	R^{3a}	R^{3b}	R^4	R^5	R^6	X	Y	R^7	R^8	R^9
III-26-1	p-Me-Ph	H	H	H	^{i}Pr	H	CH_3	F	OH	H	H	NH_2
III-26-2	p-Me-Ph	H	H	CH_3	^{i}Pr	H	CH_3	F	OH	H	H	NH_2
III-26-3	p-Me-Ph	H	H	$CH(CH_3)_2$	^{i}Pr	H	CH_3	F	OH	H	H	NH_2
III-26-4	p-Me-Ph	H	H	$CH_2CH(CH_3)_2$	^{i}Pr	H	CH_3	F	OH	H	H	NH_2
III-26-5	p-Me-Ph	H	H	CH_2Ph	^{i}Pr	H	CH_3	F	OH	H	H	NH_2
III-26-6	p-Me-Ph	H	H	CH_2-indol-3-yl	^{i}Pr	H	CH_3	F	OH	H	H	NH_2
III-26-7	p-Me-Ph	H	H	$CH_2CH_2SCH_3$	^{i}Pr	H	CH_3	F	OH	H	H	NH_2
III-26-8	p-Me-Ph	*	H	*	^{i}Pr	H	CH_3	F	OH	H	H	NH_2

*R^2 and R^{3b} joined together by $(CH_2)_3$ to form five-membered ring.

Table III-27.

№	R^1	R^2	R^{3a}	R^{3b}	R^4	R^5	R^6	X	Y	R^7	R^8	R^9
III-27-1	p-F-Ph	H	H	H	^{i}Pr	H	CH_3	F	OH	H	H	NH_2
III-27-2	p-F-Ph	H	H	CH_3	^{i}Pr	H	CH_3	F	OH	H	H	NH_2
III-27-3	p-F-Ph	H	H	$CH(CH_3)_2$	^{i}Pr	H	CH_3	F	OH	H	H	NH_2
III-27-4	p-F-Ph	H	H	$CH_2CH(CH_3)_2$	^{i}Pr	H	CH_3	F	OH	H	H	NH_2
III-27-5	p-F-Ph	H	H	CH_2Ph	^{i}Pr	H	CH_3	F	OH	H	H	NH_2
III-27-6	p-F-Ph	H	H	CH_2-indol-3-yl	^{i}Pr	H	CH_3	F	OH	H	H	NH_2
III-27-7	p-F-Ph	H	H	$CH_2CH_2SCH_3$	^{i}Pr	H	CH_3	F	OH	H	H	NH_2
III-27-8	p-F-Ph	*	H	*	^{i}Pr	H	CH_3	F	OH	H	H	NH_2

*R^2 and R^{3b} joined together by $(CH_2)_3$ to form five-membered ring.

Table III-28.

№	R^1	R^2	R^{3a}	R^{3b}	R^4	R^5	R^6	X	Y	R^7	R^8	R^9
III-28-1	p-Cl-Ph	H	H	H	^{i}Pr	H	CH_3	F	OH	H	H	NH_2
III-28-2	p-Cl-Ph	H	H	CH_3	^{i}Pr	H	CH_3	F	OH	H	H	NH_2
III-28-3	p-Cl-Ph	H	H	$CH(CH_3)_2$	^{i}Pr	H	CH_3	F	OH	H	H	NH_2
III-28-4	p-Cl-Ph	H	H	$CH_2CH(CH_3)_2$	^{i}Pr	H	CH_3	F	OH	H	H	NH_2
III-28-5	p-Cl-Ph	H	H	CH_2Ph	^{i}Pr	H	CH_3	F	OH	H	H	NH_2
III-28-6	p-Cl-Ph	H	H	CH_2-indol-3-yl	^{i}Pr	H	CH_3	F	OH	H	H	NH_2
III-28-7	p-Cl-Ph	H	H	$CH_2CH_2SCH_3$	^{i}Pr	H	CH_3	F	OH	H	H	NH_2
III-28-8	p-Cl-Ph	*	H	*	^{i}Pr	H	CH_3	F	OH	H	H	NH_2

*R^2 and R^{3b} joined together by $(CH_2)_3$ to form five-membered ring.

Gilead Exhibit 2023
PGR2023-00046 - Page 00134

Table III-29.

№	R^1	R^2	R^{3a}	R^{3b}	R^4	R^5	R^6	X	Y	R^7	R^8	R^9
III-29-1	p-Br-Ph	H	H	H	^{i}Pr	H	CH_3	F	OH	H	H	NH_2
III-29-2	p-Br-Ph	H	H	CH_3	^{i}Pr	H	CH_3	F	OH	H	H	NH_2
III-29-3	p-Br-Ph	H	H	$CH(CH_3)_2$	^{i}Pr	H	CH_3	F	OH	H	H	NH_2
III-29-4	p-Br-Ph	H	H	$CH_2CH(CH_3)_2$	^{i}Pr	H	CH_3	F	OH	H	H	NH_2
III-29-5	p-Br-Ph	H	H	CH_2Ph	^{i}Pr	H	CH_3	F	OH	H	H	NH_2
III-29-6	p-Br-Ph	H	H	CH_2-indol-3-yl	^{i}Pr	H	CH_3	F	OH	H	H	NH_2
III-29-7	p-Br-Ph	H	H	$CH_2CH_2SCH_3$	^{i}Pr	H	CH_3	F	OH	H	H	NH_2
III-29-8	p-Br-Ph	*	H	*	^{i}Pr	H	CH_3	F	OH	H	H	NH_2

*R^2 and R^{3b} joined together by $(CH_2)_3$ to form five-membered ring.

Table III-30.

№	R^1	R^2	R^{3a}	R^{3b}	R^4	R^5	R^6	X	Y	R^7	R^8	R^9
III-30-1	p-I-Ph	H	H	H	^{i}Pr	H	CH_3	F	OH	H	H	NH_2
III-30-2	p-I-Ph	H	H	CH_3	^{i}Pr	H	CH_3	F	OH	H	H	NH_2
III-30-3	p-I-Ph	H	H	$CH(CH_3)_2$	^{i}Pr	H	CH_3	F	OH	H	H	NH_2
III-30-4	p-I-Ph	H	H	$CH_2CH(CH_3)_2$	^{i}Pr	H	CH_3	F	OH	H	H	NH_2
III-30-5	p-I-Ph	H	H	CH_2Ph	^{i}Pr	H	CH_3	F	OH	H	H	NH_2
III-30-6	p-I-Ph	H	H	CH_2-indol-3-yl	^{i}Pr	H	CH_3	F	OH	H	H	NH_2
III-30-7	p-I-Ph	H	H	$CH_2CH_2SCH_3$	^{i}Pr	H	CH_3	F	OH	H	H	NH_2
III-30-8	p-I-Ph	*	H	*	^{i}Pr	H	CH_3	F	OH	H	H	NH_2

*R^2 and R^{3b} joined together by $(CH_2)_3$ to form five-membered ring.

Table III-31.

№	R^1	R^2	R^{3a}	R^{3b}	R^4	R^5	R^6	X	Y	R^7	R^8	R^9
III-31-1	CH_3	H	H	H	^{n}Bu	H	CH_3	F	OH	H	H	NH_2
III-31-2	CH_3	H	H	CH_3	^{n}Bu	H	CH_3	F	OH	H	H	NH_2
III-31-3	CH_3	H	H	$CH(CH_3)_2$	^{n}Bu	H	CH_3	F	OH	H	H	NH_2
III-31-4	CH_3	H	H	$CH_2CH(CH_3)_2$	^{n}Bu	H	CH_3	F	OH	H	H	NH_2
III-31-5	CH_3	H	H	CH_2Ph	^{n}Bu	H	CH_3	F	OH	H	H	NH_2
III-31-6	CH_3	H	H	CH_2-indol-3-yl	^{n}Bu	H	CH_3	F	OH	H	H	NH_2
III-31-7	CH_3	H	H	$CH_2CH_2SCH_3$	^{n}Bu	H	CH_3	F	OH	H	H	NH_2
III-31-8	CH_3	*	H	*	^{n}Bu	H	CH_3	F	OH	H	H	NH_2

*R^2 and R^{3b} joined together by $(CH_2)_3$ to form five-membered ring.

Gilead Exhibit 2023
PGR2023-00046 - Page 00135

Table III-32.

№	R^1	R^2	R^{3a}	R^{3b}	R^4	R^5	R^6	X	Y	R^7	R^8	R^9
III-32-1	Et	H	H	H	^{n}Bu	H	CH_3	F	OH	H	H	NH_2
III-32-2	Et	H	H	CH_3	^{n}Bu	H	CH_3	F	OH	H	H	NH_2
III-32-3	Et	H	H	$CH(CH_3)_2$	^{n}Bu	H	CH_3	F	OH	H	H	NH_2
III-32-4	Et	H	H	$CH_2CH(CH_3)_2$	^{n}Bu	H	CH_3	F	OH	H	H	NH_2
III-32-5	Et	H	H	CH_2Ph	^{n}Bu	H	CH_3	F	OH	H	H	NH_2
III-32-6	Et	H	H	CH_2-indol-3-yl	^{n}Bu	H	CH_3	F	OH	H	H	NH_2
III-32-7	Et	H	H	$CH_2CH_2SCH_3$	^{n}Bu	H	CH_3	F	OH	H	H	NH_2
III-32-8	Et	*	H	*	^{n}Bu	H	CH_3	F	OH	H	H	NH_2

*R^2 and R^{3b} joined together by $(CH_2)_3$ to form five-membered ring.

Table III-33.

№	R^1	R^2	R^{3a}	R^{3b}	R^4	R^5	R^6	X	Y	R^7	R^8	R^9
III-33-1	^{i}Pr	H	H	H	^{n}Bu	H	CH_3	F	OH	H	H	NH_2
III-33-2	^{i}Pr	H	H	CH_3	^{n}Bu	H	CH_3	F	OH	H	H	NH_2
III-33-3	^{i}Pr	H	H	$CH(CH_3)_2$	^{n}Bu	H	CH_3	F	OH	H	H	NH_2
III-33-4	^{i}Pr	H	H	$CH_2CH(CH_3)_2$	^{n}Bu	H	CH_3	F	OH	H	H	NH_2
III-33-5	^{i}Pr	H	H	CH_2Ph	^{n}Bu	H	CH_3	F	OH	H	H	NH_2
III-33-6	^{i}Pr	H	H	CH_2-indol-3-yl	^{n}Bu	H	CH_3	F	OH	H	H	NH_2
III-33-7	^{i}Pr	H	H	$CH_2CH_2SCH_3$	^{n}Bu	H	CH_3	F	OH	H	H	NH_2
III-33-8	^{i}Pr	*	H	*	^{n}Bu	H	CH_3	F	OH	H	H	NH_2

*R^2 and R^{3b} joined together by $(CH_2)_3$ to form five-membered ring.

Table III-34.

№	R^1	R^2	R^{3a}	R^{3b}	R^4	R^5	R^6	X	Y	R^7	R^8	R^9
III-34-1	^{t}Bu	H	H	H	^{n}Bu	H	CH_3	F	OH	H	H	NH_2
III-34-2	^{t}Bu	H	H	CH_3	^{n}Bu	H	CH_3	F	OH	H	H	NH_2
III-34-3	^{t}Bu	H	H	$CH(CH_3)_2$	^{n}Bu	H	CH_3	F	OH	H	H	NH_2
III-34-4	^{t}Bu	H	H	$CH_2CH(CH_3)_2$	^{n}Bu	H	CH_3	F	OH	H	H	NH_2
III-34-5	^{t}Bu	H	H	CH_2Ph	^{n}Bu	H	CH_3	F	OH	H	H	NH_2
III-34-6	^{t}Bu	H	H	CH_2-indol-3-yl	^{n}Bu	H	CH_3	F	OH	H	H	NH_2
III-34-7	^{t}Bu	H	H	$CH_2CH_2SCH_3$	^{n}Bu	H	CH_3	F	OH	H	H	NH_2
III-34-8	^{t}Bu	*	H	*	^{n}Bu	H	CH_3	F	OH	H	H	NH_2

*R^2 and R^{3b} joined together by $(CH_2)_3$ to form five-membered ring.

Gilead Exhibit 2023
PGR2023-00046 - Page 00136

Table III-35.

№	R^1	R^2	R^{3a}	R^{3b}	R^4	R^5	R^6	X	Y	R^7	R^8	R^9
III-35-1	Ph	H	H	H	^{n}Bu	H	CH_3	F	OH	H	H	NH_2
III-35-2	Ph	H	H	CH_3	^{n}Bu	H	CH_3	F	OH	H	H	NH_2
III-35-3	Ph	H	H	$CH(CH_3)_2$	^{n}Bu	H	CH_3	F	OH	H	H	NH_2
III-35-4	Ph	H	H	$CH_2CH(CH_3)_2$	^{n}Bu	H	CH_3	F	OH	H	H	NH_2
III-35-5	Ph	H	H	CH_2Ph	^{n}Bu	H	CH_3	F	OH	H	H	NH_2
III-35-6	Ph	H	H	CH_2-indol-3-yl	^{n}Bu	H	CH_3	F	OH	H	H	NH_2
III-35-7	Ph	H	H	$CH_2CH_2SCH_3$	^{n}Bu	H	CH_3	F	OH	H	H	NH_2
III-35-8	Ph	*	H	*	^{n}Bu	H	CH_3	F	OH	H	H	NH_2

*R^2 and R^{3b} joined together by $(CH_2)_3$ to form five-membered ring.

Table III-36.

№	R^1	R^2	R^{3a}	R^{3b}	R^4	R^5	R^6	X	Y	R^7	R^8	R^9
III-36-1	p-Me-Ph	H	H	H	^{n}Bu	H	CH_3	F	OH	H	H	NH_2
III-36-2	p-Me-Ph	H	H	CH_3	^{n}Bu	H	CH_3	F	OH	H	H	NH_2
III-36-3	p-Me-Ph	H	H	$CH(CH_3)_2$	^{n}Bu	H	CH_3	F	OH	H	H	NH_2
III-36-4	p-Me-Ph	H	H	$CH_2CH(CH_3)_2$	^{n}Bu	H	CH_3	F	OH	H	H	NH_2
III-36-5	p-Me-Ph	H	H	CH_2Ph	^{n}Bu	H	CH_3	F	OH	H	H	NH_2
III-36-6	p-Me-Ph	H	H	CH_2-indol-3-yl	^{n}Bu	H	CH_3	F	OH	H	H	NH_2
III-36-7	p-Me-Ph	H	H	$CH_2CH_2SCH_3$	^{n}Bu	H	CH_3	F	OH	H	H	NH_2
III-36-8	p-Me-Ph	*	H	*	^{n}Bu	H	CH_3	F	OH	H	H	NH_2

*R^2 and R^{3b} joined together by $(CH_2)_3$ to form five-membered ring.

Table III-37.

№	R^1	R^2	R^{3a}	R^{3b}	R^4	R^5	R^6	X	Y	R^7	R^8	R^9
III-37-1	p-F-Ph	H	H	H	^{n}Bu	H	CH_3	F	OH	H	H	NH_2
III-37-2	p-F-Ph	H	H	CH_3	^{n}Bu	H	CH_3	F	OH	H	H	NH_2
III-37-3	p-F-Ph	H	H	$CH(CH_3)_2$	^{n}Bu	H	CH_3	F	OH	H	H	NH_2
III-37-4	p-F-Ph	H	H	$CH_2CH(CH_3)_2$	^{n}Bu	H	CH_3	F	OH	H	H	NH_2
III-37-5	p-F-Ph	H	H	CH_2Ph	^{n}Bu	H	CH_3	F	OH	H	H	NH_2
III-37-6	p-F-Ph	H	H	CH_2-indol-3-yl	^{n}Bu	H	CH_3	F	OH	H	H	NH_2
III-37-7	p-F-Ph	H	H	$CH_2CH_2SCH_3$	^{n}Bu	H	CH_3	F	OH	H	H	NH_2
III-37-8	p-F-Ph	*	H	*	^{n}Bu	H	CH_3	F	OH	H	H	NH_2

*R^2 and R^{3b} joined together by $(CH_2)_3$ to form five-membered ring.

Gilead Exhibit 2023
PGR2023-00046 - Page 00137

Table III-38.

№	R^1	R^2	R^{3a}	R^{3b}	R^4	R^5	R^6	X	Y	R^7	R^8	R^9
III-38-1	p-Cl-Ph	H	H	H	^{n}Bu	H	CH_3	F	OH	H	H	NH_2
III-38-2	p-Cl-Ph	H	H	CH_3	^{n}Bu	H	CH_3	F	OH	H	H	NH_2
III-38-3	p-Cl-Ph	H	H	$CH(CH_3)_2$	^{n}Bu	H	CH_3	F	OH	H	H	NH_2
III-38-4	p-Cl-Ph	H	H	$CH_2CH(CH_3)_2$	^{n}Bu	H	CH_3	F	OH	H	H	NH_2
III-38-5	p-Cl-Ph	H	H	CH_2Ph	^{n}Bu	H	CH_3	F	OH	H	H	NH_2
III-38-6	p-Cl-Ph	H	H	CH_2-indol-3-yl	^{n}Bu	H	CH_3	F	OH	H	H	NH_2
III-38-7	p-Cl-Ph	H	H	$CH_2CH_2SCH_3$	^{n}Bu	H	CH_3	F	OH	H	H	NH_2
III-38-8	p-Cl-Ph	*	H	*	^{n}Bu	H	CH_3	F	OH	H	H	NH_2

*R^2 and R^{3b} joined together by $(CH_2)_3$ to form five-membered ring.

Table III-39.

№	R^1	R^2	R^{3a}	R^{3b}	R^4	R^5	R^6	X	Y	R^7	R^8	R^9
III-39-1	p-Br-Ph	H	H	H	^{n}Bu	H	CH_3	F	OH	H	H	NH_2
III-39-2	p-Br-Ph	H	H	CH_3	^{n}Bu	H	CH_3	F	OH	H	H	NH_2
III-39-3	p-Br-Ph	H	H	$CH(CH_3)_2$	^{n}Bu	H	CH_3	F	OH	H	H	NH_2
III-39-4	p-Br-Ph	H	H	$CH_2CH(CH_3)_2$	^{n}Bu	H	CH_3	F	OH	H	H	NH_2
III-39-5	p-Br-Ph	H	H	CH_2Ph	^{n}Bu	H	CH_3	F	OH	H	H	NH_2
III-39-6	p-Br-Ph	H	H	CH_2-indol-3-yl	^{n}Bu	H	CH_3	F	OH	H	H	NH_2
III-39-7	p-Br-Ph	H	H	$CH_2CH_2SCH_3$	^{n}Bu	H	CH_3	F	OH	H	H	NH_2
III-39-8	p-Br-Ph	*	H	*	^{n}Bu	H	CH_3	F	OH	H	H	NH_2

*R^2 and R^{3b} joined together by $(CH_2)_3$ to form five-membered ring.

Table III-40.

№	R^1	R^2	R^{3a}	R^{3b}	R^4	R^5	R^6	X	Y	R^7	R^8	R^9
III-40-1	p-I-Ph	H	H	H	^{n}Bu	H	CH_3	F	OH	H	H	NH_2
III-40-2	p-I-Ph	H	H	CH_3	^{n}Bu	H	CH_3	F	OH	H	H	NH_2
III-40-3	p-I-Ph	H	H	$CH(CH_3)_2$	^{n}Bu	H	CH_3	F	OH	H	H	NH_2
III-40-4	p-I-Ph	H	H	$CH_2CH(CH_3)_2$	^{n}Bu	H	CH_3	F	OH	H	H	NH_2
III-40-5	p-I-Ph	H	H	CH_2Ph	^{n}Bu	H	CH_3	F	OH	H	H	NH_2
III-40-6	p-I-Ph	H	H	CH_2-indol-3-yl	^{n}Bu	H	CH_3	F	OH	H	H	NH_2
III-40-7	p-I-Ph	H	H	$CH_2CH_2SCH_3$	^{n}Bu	H	CH_3	F	OH	H	H	NH_2
III-40-8	p-I-Ph	*	H	*	^{n}Bu	H	CH_3	F	OH	H	H	NH_2

*R^2 and R^{3b} joined together by $(CH_2)_3$ to form five-membered ring.

Gilead Exhibit 2023
PGR2023-00046 - Page 00138

Table III-41.

№	R^1	R^2	R^{3a}	R^{3b}	R^4	R^5	R^6	X	Y	R^7	R^8	R^9
III-41-1	CH_3	H	H	H	Bz	H	CH_3	F	OH	H	H	NH_2
III-41-2	CH_3	H	H	CH_3	Bz	H	CH_3	F	OH	H	H	NH_2
III-41-3	CH_3	H	H	$CH(CH_3)_2$	Bz	H	CH_3	F	OH	H	H	NH_2
III-41-4	CH_3	H	H	$CH_2CH(CH_3)_2$	Bz	H	CH_3	F	OH	H	H	NH_2
III-41-5	CH_3	H	H	CH_2Ph	Bz	H	CH_3	F	OH	H	H	NH_2
III-41-6	CH_3	H	H	CH_2-indol-3-yl	Bz	H	CH_3	F	OH	H	H	NH_2
III-41-7	CH_3	H	H	$CH_2CH_2SCH_3$	Bz	H	CH_3	F	OH	H	H	NH_2
III-41-8	CH_3	*	H	*	Bz	H	CH_3	F	OH	H	H	NH_2

*R^2 and R^{3b} joined together by $(CH_2)_3$ to form five-membered ring.

Table III-42.

№	R^1	R^2	R^{3a}	R^{3b}	R^4	R^5	R^6	X	Y	R^7	R^8	R^9
III-42-1	Et	H	H	H	Bz	H	CH_3	F	OH	H	H	NH_2
III-42-2	Et	H	H	CH_3	Bz	H	CH_3	F	OH	H	H	NH_2
III-42-3	Et	H	H	$CH(CH_3)_2$	Bz	H	CH_3	F	OH	H	H	NH_2
III-42-4	Et	H	H	$CH_2CH(CH_3)_2$	Bz	H	CH_3	F	OH	H	H	NH_2
III-42-5	Et	H	H	CH_2Ph	Bz	H	CH_3	F	OH	H	H	NH_2
III-42-6	Et	H	H	CH_2-indol-3-yl	Bz	H	CH_3	F	OH	H	H	NH_2
III-42-7	Et	H	H	$CH_2CH_2SCH_3$	Bz	H	CH_3	F	OH	H	H	NH_2
III-42-8	Et	*	H	*	Bz	H	CH_3	F	OH	H	H	NH_2

*R^2 and R^{3b} joined together by $(CH_2)_3$ to form five-membered ring.

Table III-43.

№	R^1	R^2	R^{3a}	R^{3b}	R^4	R^5	R^6	X	Y	R^7	R^8	R^9
III-43-1	^iPr	H	H	H	Bz	H	CH_3	F	OH	H	H	NH_2
III-43-2	^iPr	H	H	CH_3	Bz	H	CH_3	F	OH	H	H	NH_2
III-43-3	^iPr	H	H	$CH(CH_3)_2$	Bz	H	CH_3	F	OH	H	H	NH_2
III-43-4	^iPr	H	H	$CH_2CH(CH_3)_2$	Bz	H	CH_3	F	OH	H	H	NH_2
III-43-5	^iPr	H	H	CH_2Ph	Bz	H	CH_3	F	OH	H	H	NH_2
III-43-6	^iPr	H	H	CH_2-indol-3-yl	Bz	H	CH_3	F	OH	H	H	NH_2
III-43-7	^iPr	H	H	$CH_2CH_2SCH_3$	Bz	H	CH_3	F	OH	H	H	NH_2
III-43-8	^iPr	*	H	*	Bz	H	CH_3	F	OH	H	H	NH_2

Gilead Exhibit 2023
PGR2023-00046 - Page 00139

*R^2 and R^{3b} joined together by $(CH_2)_3$ to form five-membered ring.

Table III-44.

№	R^1	R^2	R^{3a}	R^{3b}	R^4	R^5	R^6	X	Y	R^7	R^8	R^9
III-44-1	^{t}Bu	H	H	H	Bz	H	CH_3	F	OH	H	H	NH_2
III-44-2	^{t}Bu	H	H	CH_3	Bz	H	CH_3	F	OH	H	H	NH_2
III-44-3	^{t}Bu	H	H	$CH(CH_3)_2$	Bz	H	CH_3	F	OH	H	H	NH_2
III-44-4	^{t}Bu	H	H	$CH_2CH(CH_3)_2$	Bz	H	CH_3	F	OH	H	H	NH_2
III-44-5	^{t}Bu	H	H	CH_2Ph	Bz	H	CH_3	F	OH	H	H	NH_2
III-44-6	^{t}Bu	H	H	CH_2-indol-3-yl	Bz	H	CH_3	F	OH	H	H	NH_2
III-44-7	^{t}Bu	H	H	$CH_2CH_2SCH_3$	Bz	H	CH_3	F	OH	H	H	NH_2
III-44-8	^{t}Bu	*	H	*	Bz	H	CH_3	F	OH	H	H	NH_2

*R^2 and R^{3b} joined together by $(CH_2)_3$ to form five-membered ring.

Table III-45.

№	R^1	R^2	R^{3a}	R^{3b}	R^4	R^5	R^6	X	Y	R^7	R^8	R^9
III-45-1	Ph	H	H	H	Bz	H	CH_3	F	OH	H	H	NH_2
III-45-2	Ph	H	H	CH_3	Bz	H	CH_3	F	OH	H	H	NH_2
III-45-3	Ph	H	H	$CH(CH_3)_2$	Bz	H	CH_3	F	OH	H	H	NH_2
III-45-4	Ph	H	H	$CH_2CH(CH_3)_2$	Bz	H	CH_3	F	OH	H	H	NH_2
III-45-5	Ph	H	H	CH_2Ph	Bz	H	CH_3	F	OH	H	H	NH_2
III-45-6	Ph	H	H	CH_2-indol-3-yl	Bz	H	CH_3	F	OH	H	H	NH_2
III-45-7	Ph	H	H	$CH_2CH_2SCH_3$	Bz	H	CH_3	F	OH	H	H	NH_2
III-45-8	Ph	*	H	*	Bz	H	CH_3	F	OH	H	H	NH_2

*R^2 and R^{3b} joined together by $(CH_2)_3$ to form five-membered ring.

Table III-46.

№	R^1	R^2	R^{3a}	R^{3b}	R^4	R^5	R^6	X	Y	R^7	R^8	R^9
III-46-1	p-Me-Ph	H	H	H	Bz	H	CH_3	F	OH	H	H	NH_2
III-46-2	p-Me-Ph	H	H	CH_3	Bz	H	CH_3	F	OH	H	H	NH_2
III-46-3	p-Me-Ph	H	H	$CH(CH_3)_2$	Bz	H	CH_3	F	OH	H	H	NH_2
III-46-4	p-Me-Ph	H	H	$CH_2CH(CH_3)_2$	Bz	H	CH_3	F	OH	H	H	NH_2
III-46-5	p-Me-Ph	H	H	CH_2Ph	Bz	H	CH_3	F	OH	H	H	NH_2
III-46-6	p-Me-Ph	H	H	CH_2-indol-3-yl	Bz	H	CH_3	F	OH	H	H	NH_2
III-46-7	p-Me-Ph	H	H	$CH_2CH_2SCH_3$	Bz	H	CH_3	F	OH	H	H	NH_2

Gilead Exhibit 2023
PGR2023-00046 - Page 00140

№	R^1	R^2	R^{3a}	R^{3b}	R^4	R^5	R^6	X	Y	R^7	R^8	R^9
III-46-8	p-Me-Ph	*	H	*	Bz	H	CH_3	F	OH	H	H	NH_2

*R^2 and R^{3b} joined together by $(CH_2)_3$ to form five-membered ring.

Table III-47.

№	R^1	R^2	R^{3a}	R^{3b}	R^4	R^5	R^6	X	Y	R^7	R^8	R^9
III-47-1	p-F-Ph	H	H	H	Bz	H	CH_3	F	OH	H	H	NH_2
III-47-2	p-F-Ph	H	H	CH_3	Bz	H	CH_3	F	OH	H	H	NH_2
III-47-3	p-F-Ph	H	H	$CH(CH_3)_2$	Bz	H	CH_3	F	OH	H	H	NH_2
III-47-4	p-F-Ph	H	H	$CH_2CH(CH_3)_2$	Bz	H	CH_3	F	OH	H	H	NH_2
III-47-5	p-F-Ph	H	H	CH_2Ph	Bz	H	CH_3	F	OH	H	H	NH_2
III-47-6	p-F-Ph	H	H	CH_2-indol-3-yl	Bz	H	CH_3	F	OH	H	H	NH_2
III-47-7	p-F-Ph	H	H	$CH_2CH_2SCH_3$	Bz	H	CH_3	F	OH	H	H	NH_2
III-47-8	p-F-Ph	*	H	*	Bz	H	CH_3	F	OH	H	H	NH_2

*R^2 and R^{3b} joined together by $(CH_2)_3$ to form five-membered ring.

Table III-48.

№	R^1	R^2	R^{3a}	R^{3b}	R^4	R^5	R^6	X	Y	R^7	R^8	R^9
III-48-1	p-Cl-Ph	H	H	H	Bz	H	CH_3	F	OH	H	H	NH_2
III-48-2	p-Cl-Ph	H	H	CH_3	Bz	H	CH_3	F	OH	H	H	NH_2
III-48-3	p-Cl-Ph	H	H	$CH(CH_3)_2$	Bz	H	CH_3	F	OH	H	H	NH_2
III-48-4	p-Cl-Ph	H	H	$CH_2CH(CH_3)_2$	Bz	H	CH_3	F	OH	H	H	NH_2
III-48-5	p-Cl-Ph	H	H	CH_2Ph	Bz	H	CH_3	F	OH	H	H	NH_2
III-48-6	p-Cl-Ph	H	H	CH_2-indol-3-yl	Bz	H	CH_3	F	OH	H	H	NH_2
III-48-7	p-Cl-Ph	H	H	$CH_2CH_2SCH_3$	Bz	H	CH_3	F	OH	H	H	NH_2
III-48-8	p-Cl-Ph	*	H	*	Bz	H	CH_3	F	OH	H	H	NH_2

*R^2 and R^{3b} joined together by $(CH_2)_3$ to form five-membered ring.

Table III-49.

№	R^1	R^2	R^{3a}	R^{3b}	R^4	R^5	R^6	X	Y	R^7	R^8	R^9
III-49-1	p-Br-Ph	H	H	H	Bz	H	CH_3	F	OH	H	H	NH_2
III-49-2	p-Br-Ph	H	H	CH_3	Bz	H	CH_3	F	OH	H	H	NH_2
III-49-3	p-Br-Ph	H	H	$CH(CH_3)_2$	Bz	H	CH_3	F	OH	H	H	NH_2
III-49-4	p-Br-Ph	H	H	$CH_2CH(CH_3)_2$	Bz	H	CH_3	F	OH	H	H	NH_2
III-49-5	p-Br-Ph	H	H	CH_2Ph	Bz	H	CH_3	F	OH	H	H	NH_2

Gilead Exhibit 2023
PGR2023-00046 - Page 00141

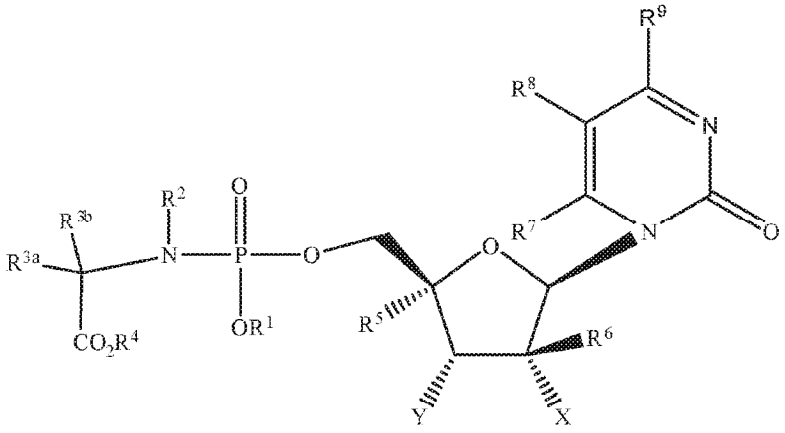
№	R^1	R^2	R^{3a}	R^{3b}	R^4	R^5	R^6	X	Y	R^7	R^8	R^9
III-49-6	p-Br-Ph	H	H	CH_2-indol-3-yl	Bz	H	CH_3	F	OH	H	H	NH_2
III-49-7	p-Br-Ph	H	H	$CH_2CH_2SCH_3$	Bz	H	CH_3	F	OH	H	H	NH_2
III-49-8	p-Br-Ph	*	H	*	Bz	H	CH_3	F	OH	H	H	NH_2

*R^2 and R^{3b} joined together by $(CH_2)_3$ to form five-membered ring.

Table III-50.

№	R^1	R^2	R^{3a}	R^{3b}	R^4	R^5	R^6	X	Y	R^7	R^8	R^9
III-50-1	p-I-Ph	H	H	H	Bz	H	CH_3	F	OH	H	H	NH_2
III-50-2	p-I-Ph	H	H	CH_3	Bz	H	CH_3	F	OH	H	H	NH_2
III-50-3	p-I-Ph	H	H	$CH(CH_3)_2$	Bz	H	CH_3	F	OH	H	H	NH_2
III-50-4	p-I-Ph	H	H	$CH_2CH(CH_3)_2$	Bz	H	CH_3	F	OH	H	H	NH_2
III-50-5	p-I-Ph	H	H	CH_2Ph	Bz	H	CH_3	F	OH	H	H	NH_2
III-50-6	p-I-Ph	H	H	CH_2-indol-3-yl	Bz	H	CH_3	F	OH	H	H	NH_2
III-50-7	p-I-Ph	H	H	$CH_2CH_2SCH_3$	Bz	H	CH_3	F	OH	H	H	NH_2
III-50-8	p-I-Ph	*	H	*	Bz	H	CH_3	F	OH	H	H	NH_2

*R^2 and R^{3b} joined together by $(CH_2)_3$ to form five-membered ring.



IV

Table IV-1.

№	R^1	R^2	R^{3a}	R^{3b}	R^4	R^5	R^6	X	Y	R^7	R^8	R^9
IV-1-1	CH_3	H	H	H	CH_3	H	F	F	OH	H	H	NH_2

Gilead Exhibit 2023
PGR2023-00046 - Page 00142

№	R^1	R^2	R^{3a}	R^{3b}	R^4	R^5	R^6	X	Y	R^7	R^8	R^9
IV-1-2	CH_3	H	H	CH_3	CH_3	H	F	F	OH	H	H	NH_2
IV-1-3	CH_3	H	H	$CH(CH_3)_2$	CH_3	H	F	F	OH	H	H	NH_2
IV-1-4	CH_3	H	H	$CH_2CH(CH_3)_2$	CH_3	H	F	F	OH	H	H	NH_2
IV-1-5	CH_3	H	H	CH_2Ph	CH_3	H	F	F	OH	H	H	NH_2
IV-1-6	CH_3	H	H	CH_2-indol-3-yl	CH_3	H	F	F	OH	H	H	NH_2
IV-1-7	CH_3	H	H	$CH_2CH_2SCH_3$	CH_3	H	F	F	OH	H	H	NH_2
IV-1-8	CH_3	*	H	*	CH_3	H	F	F	OH	H	H	NH_2

*R^2 and R^{3b} joined together by $(CH_2)_3$ to form five-membered ring.

Table IV-2.

№	R^1	R^2	R^{3a}	R^{3b}	R^4	R^5	R^6	X	Y	R^7	R^8	R^9
IV-2-1	Et	H	H	H	CH_3	H	F	F	OH	H	H	NH_2
IV-2-2	Et	H	H	CH_3	CH_3	H	F	F	OH	H	H	NH_2
IV-2-3	Et	H	H	$CH(CH_3)_2$	CH_3	H	F	F	OH	H	H	NH_2
IV-2-4	Et	H	H	$CH_2CH(CH_3)_2$	CH_3	H	F	F	OH	H	H	NH_2
IV-2-5	Et	H	H	CH_2Ph	CH_3	H	F	F	OH	H	H	NH_2
IV-2-6	Et	H	H	CH_2-indol-3-yl	CH_3	H	F	F	OH	H	H	NH_2
IV-2-7	Et	H	H	$CH_2CH_2SCH_3$	CH_3	H	F	F	OH	H	H	NH_2
IV-2-8	Et	*	H	*	CH_3	H	F	F	OH	H	H	NH_2

*R^2 and R^{3b} joined together by $(CH_2)_3$ to form five-membered ring.

Table IV-3.

№	R^1	R^2	R^{3a}	R^{3b}	R^4	R^5	R^6	X	Y	R^7	R^8	R^9
IV-3-1	^{i}Pr	H	H	H	CH_3	H	F	F	OH	H	H	NH_2
IV-3-2	^{i}Pr	H	H	CH_3	CH_3	H	F	F	OH	H	H	NH_2
IV-3-3	^{i}Pr	H	H	$CH(CH_3)_2$	CH_3	H	F	F	OH	H	H	NH_2
IV-3-4	^{i}Pr	H	H	$CH_2CH(CH_3)_2$	CH_3	H	F	F	OH	H	H	NH_2
IV-3-5	^{i}Pr	H	H	CH_2Ph	CH_3	H	F	F	OH	H	H	NH_2
IV-3-6	^{i}Pr	H	H	CH_2-indol-3-yl	CH_3	H	F	F	OH	H	H	NH_2
IV-3-7	^{i}Pr	H	H	$CH_2CH_2SCH_3$	CH_3	H	F	F	OH	H	H	NH_2
IV-3-8	^{i}Pr	*	H	*	CH_3	H	F	F	OH	H	H	NH_2

*R^2 and R^{3b} joined together by $(CH_2)_3$ to form five-membered ring.

Table IV-4.

Gilead Exhibit 2023
PGR2023-00046 - Page 00143

№	R^1	R^2	R^{3a}	R^{3b}	R^4	R^5	R^6	X	Y	R^7	R^8	R^9
IV-4-1	^{t}Bu	H	H	H	CH_3	H	CH_3	F	OH	H	H	NH_2
IV-4-2	^{t}Bu	H	H	CH_3	CH_3	H	CH_3	F	OH	H	H	NH_2
IV-4-3	^{t}Bu	H	H	$CH(CH_3)_2$	CH_3	H	CH_3	F	OH	H	H	NH_2
IV-4-4	^{t}Bu	H	H	$CH_2CH(CH_3)_2$	CH_3	H	CH_3	F	OH	H	H	NH_2
IV-4-5	^{t}Bu	H	H	CH_2Ph	CH_3	H	CH_3	F	OH	H	H	NH_2
IV-4-6	^{t}Bu	H	H	CH_2-indol-3-yl	CH_3	H	CH_3	F	OH	H	H	NH_2
IV-4-7	^{t}Bu	H	H	$CH_2CH_2SCH_3$	CH_3	H	CH_3	F	OH	H	H	NH_2
IV-4-8	^{t}Bu	*	H	*	CH_3	H	CH_3	F	OH	H	H	NH_2

*R^2 and R^{3b} joined together by $(CH_2)_3$ to form five-membered ring.

Table IV-5.

№	R^1	R^2	R^{3a}	R^{3b}	R^4	R^5	R^6	X	Y	R^7	R^8	R^9
IV-5-1	Ph	H	H	H	CH_3	H	F	F	OH	H	H	NH_2
IV-5-2	Ph	H	H	CH_3	CH_3	H	F	F	OH	H	H	NH_2
IV-5-3	Ph	H	H	$CH(CH_3)_2$	CH_3	H	F	F	OH	H	H	NH_2
IV-5-4	Ph	H	H	$CH_2CH(CH_3)_2$	CH_3	H	F	F	OH	H	H	NH_2
IV-5-5	Ph	H	H	CH_2Ph	CH_3	H	F	F	OH	H	H	NH_2
IV-5-6	Ph	H	H	CH_2-indol-3-yl	CH_3	H	F	F	OH	H	H	NH_2
IV-5-7	Ph	H	H	$CH_2CH_2SCH_3$	CH_3	H	F	F	OH	H	H	NH_2
IV-5-8	Ph	*	H	*	CH_3	H	F	F	OH	H	H	NH_2

*R^2 and R^{3b} joined together by $(CH_2)_3$ to form five-membered ring.

Table IV-6.

№	R^1	R^2	R^{3a}	R^{3b}	R^4	R^5	R^6	X	Y	R^7	R^8	R^9
IV-6-1	p-Me-Ph	H	H	H	CH_3	H	F	F	OH	H	H	NH_2
IV-6-2	p-Me-Ph	H	H	CH_3	CH_3	H	F	F	OH	H	H	NH_2
IV-6-3	p-Me-Ph	H	H	$CH(CH_3)_2$	CH_3	H	F	F	OH	H	H	NH_2
IV-6-4	p-Me-Ph	H	H	$CH_2CH(CH_3)_2$	CH_3	H	F	F	OH	H	H	NH_2
IV-6-5	p-Me-Ph	H	H	CH_2Ph	CH_3	H	F	F	OH	H	H	NH_2
IV-6-6	p-Me-Ph	H	H	CH_2-indol-3-yl	CH_3	H	F	F	OH	H	H	NH_2
IV-6-7	p-Me-Ph	H	H	$CH_2CH_2SCH_3$	CH_3	H	F	F	OH	H	H	NH_2
IV-6-8	p-Me-Ph	*	H	*	CH_3	H	F	F	OH	H	H	NH_2

*R^2 and R^{3b} joined together by $(CH_2)_3$ to form five-membered ring.

Gilead Exhibit 2023
PGR2023-00046 - Page 00144

Table IV-7.

№	R^1	R^2	R^{3a}	R^{3b}	R^4	R^5	R^6	X	Y	R^7	R^8	R^9
IV-7-1	p-F-Ph	H	H	H	CH_3	H	F	F	OH	H	H	NH_2
IV-7-2	p-F-Ph	H	H	CH_3	CH_3	H	F	F	OH	H	H	NH_2
IV-7-3	p-F-Ph	H	H	$CH(CH_3)_2$	CH_3	H	F	F	OH	H	H	NH_2
IV-7-4	p-F-Ph	H	H	$CH_2CH(CH_3)_2$	CH_3	H	F	F	OH	H	H	NH_2
IV-7-6	p-F-Ph	H	H	CH_2Ph	CH_3	H	F	F	OH	H	H	NH_2
IV-7-7	p-F-Ph	H	H	CH_2-indol-3-yl	CH_3	H	F	F	OH	H	H	NH_2
IV-7-8	p-F-Ph	H	H	$CH_2CH_2SCH_3$	CH_3	H	F	F	OH	H	H	NH_2
IV-7-20	p-F-Ph	*	H	*	CH_3	H	F	F	OH	H	H	NH_2

*R^2 and R^{3b} joined together by $(CH_2)_3$ to form five-membered ring.

Table IV-8.

№	R^1	R^2	R^{3a}	R^{3b}	R^4	R^5	R^6	X	Y	R^7	R^8	R^9
IV-8-1	p-Cl-Ph	H	H	H	CH_3	H	F	F	OH	H	H	NH_2
IV-8-2	p-Cl-Ph	H	H	CH_3	CH_3	H	F	F	OH	H	H	NH_2
IV-8-3	p-Cl-Ph	H	H	$CH(CH_3)_2$	CH_3	H	F	F	OH	H	H	NH_2
IV-8-4	p-Cl-Ph	H	H	$CH_2CH(CH_3)_2$	CH_3	H	F	F	OH	H	H	NH_2
IV-8-5	p-Cl-Ph	H	H	CH_2Ph	CH_3	H	F	F	OH	H	H	NH_2
IV-8-6	p-Cl-Ph	H	H	CH_2-indol-3-yl	CH_3	H	F	F	OH	H	H	NH_2
IV-8-7	p-Cl-Ph	H	H	$CH_2CH_2SCH_3$	CH_3	H	F	F	OH	H	H	NH_2
IV-8-8	p-Cl-Ph	*	H	*	CH_3	H	F	F	OH	H	H	NH_2

*R^2 and R^{3b} joined together by $(CH_2)_3$ to form five-membered ring.

Table IV-9.

№	R^1	R^2	R^{3a}	R^{3b}	R^4	R^5	R^6	X	Y	R^7	R^8	R^9
IV-9-1	p-Br-Ph	H	H	H	CH_3	H	F	F	OH	H	H	NH_2
IV-9-2	p-Br-Ph	H	H	CH_3	CH_3	H	F	F	OH	H	H	NH_2
IV-9-3	p-Br-Ph	H	H	$CH(CH_3)_2$	CH_3	H	F	F	OH	H	H	NH_2
IV-9-4	p-Br-Ph	H	H	$CH_2CH(CH_3)_2$	CH_3	H	F	F	OH	H	H	NH_2
IV-9-6	p-Br-Ph	H	H	CH_2Ph	CH_3	H	F	F	OH	H	H	NH_2
IV-9-7	p-Br-Ph	H	H	CH_2-indol-3-yl	CH_3	H	F	F	OH	H	H	NH_2
IV-9-8	p-Br-Ph	H	H	$CH_2CH_2SCH_3$	CH_3	H	F	F	OH	H	H	NH_2
IV-9-20	p-Br-Ph	*	H	*	CH_3	H	F	F	OH	H	H	NH_2

*R^2 and R^{3b} joined together by $(CH_2)_3$ to form five-membered ring.

Gilead Exhibit 2023
PGR2023-00046 - Page 00145

Table IV-10.

№	R^1	R^2	R^{3a}	R^{3b}	R^4	R^5	R^6	X	Y	R^7	R^8	R^9
IV-10-1	p-I-Ph	H	H	H	CH_3	H	F	F	OH	H	H	NH_2
IV-10-2	p-I-Ph	H	H	CH_3	CH_3	H	F	F	OH	H	H	NH_2
IV-10-3	p-I-Ph	H	H	$CH(CH_3)_2$	CH_3	H	F	F	OH	H	H	NH_2
IV-10-4	p-I-Ph	H	H	$CH_2CH(CH_3)_2$	CH_3	H	F	F	OH	H	H	NH_2
IV-10-5	p-I-Ph	H	H	CH_2Ph	CH_3	H	F	F	OH	H	H	NH_2
IV-10-6	p-I-Ph	H	H	CH_2-indol-3-yl	CH_3	H	F	F	OH	H	H	NH_2
IV-10-7	p-I-Ph	H	H	$CH_2CH_2SCH_3$	CH_3	H	F	F	OH	H	H	NH_2
IV-10-8	p-I-Ph	*	H	*	CH_3	H	F	F	OH	H	H	NH_2

*R^2 and R^{3b} joined together by $(CH_2)_3$ to form five-membered ring.

Table IV-11.

№	R^1	R^2	R^{3a}	R^{3b}	R^4	R^5	R^6	X	Y	R^7	R^8	R^9
IV-11-1	CH_3	H	H	H	Et	H	F	F	OH	H	H	NH_2
IV-11-2	CH_3	H	H	CH_3	Et	H	F	F	OH	H	H	NH_2
IV-11-3	CH_3	H	H	$CH(CH_3)_2$	Et	H	F	F	OH	H	H	NH_2
IV-11-4	CH_3	H	H	$CH_2CH(CH_3)_2$	Et	H	F	F	OH	H	H	NH_2
IV-11-5	CH_3	H	H	CH_2Ph	Et	H	F	F	OH	H	H	NH_2
IV-11-6	CH_3	H	H	CH_2-indol-3-yl	Et	H	F	F	OH	H	H	NH_2
IV-11-7	CH_3	H	H	$CH_2CH_2SCH_3$	Et	H	F	F	OH	H	H	NH_2
IV-11-8	CH_3	*	H	*	Et	H	F	F	OH	H	H	NH_2

*R^2 and R^{3b} joined together by $(CH_2)_3$ to form five-membered ring.

Table IV-12.

№	R^1	R^2	R^{3a}	R^{3b}	R^4	R^5	R^6	X	Y	R^7	R^8	R^9
IV-12-1	Et	H	H	H	Et	H	F	F	OH	H	H	NH_2
IV-12-2	Et	H	H	CH_3	Et	H	F	F	OH	H	H	NH_2
IV-12-3	Et	H	H	$CH(CH_3)_2$	Et	H	F	F	OH	H	H	NH_2
IV-12-4	Et	H	H	$CH_2CH(CH_3)_2$	Et	H	F	F	OH	H	H	NH_2
IV-12-5	Et	H	H	CH_2Ph	Et	H	F	F	OH	H	H	NH_2
IV-12-6	Et	H	H	CH_2-indol-3-yl	Et	H	F	F	OH	H	H	NH_2
IV-12-7	Et	H	H	$CH_2CH_2SCH_3$	Et	H	F	F	OH	H	H	NH_2
IV-12-8	Et	*	H	*	Et	H	F	F	OH	H	H	NH_2

*R^2 and R^{3b} joined together by $(CH_2)_3$ to form five-membered ring.

Gilead Exhibit 2023
PGR2023-00046 - Page 00146

Table IV-13.

№	R^1	R^2	R^{3a}	R^{3b}	R^4	R^5	R^6	X	Y	R^7	R^8	R^9
IV-13-1	^{i}Pr	H	H	H	Et	H	F	F	OH	H	H	NH_2
IV-13-2	^{i}Pr	H	H	CH_3	Et	H	F	F	OH	H	H	NH_2
IV-13-3	^{i}Pr	H	H	$CH(CH_3)_2$	Et	H	F	F	OH	H	H	NH_2
IV-13-4	^{i}Pr	H	H	$CH_2CH(CH_3)_2$	Et	H	F	F	OH	H	H	NH_2
IV-13-5	^{i}Pr	H	H	CH_2Ph	Et	H	F	F	OH	H	H	NH_2
IV-13-6	^{i}Pr	H	H	CH_2-indol-3-yl	Et	H	F	F	OH	H	H	NH_2
IV-13-7	^{i}Pr	H	H	$CH_2CH_2SCH_3$	Et	H	F	F	OH	H	H	NH_2
IV-13-8	^{i}Pr	*	H	*	Et	H	F	F	OH	H	H	NH_2

*R^2 and R^{3b} joined together by $(CH_2)_3$ to form five-membered ring.

Table IV-14.

№	R^1	R^2	R^{3a}	R^{3b}	R^4	R^5	R^6	X	Y	R^7	R^8	R^9
IV-14-1	^{t}Bu	H	H	H	Et	H	F	F	OH	H	H	NH_2
IV-14-2	^{t}Bu	H	H	CH_3	Et	H	F	F	OH	H	H	NH_2
IV-14-3	^{t}Bu	H	H	$CH(CH_3)_2$	Et	H	F	F	OH	H	H	NH_2
IV-14-4	^{t}Bu	H	H	$CH_2CH(CH_3)_2$	Et	H	F	F	OH	H	H	NH_2
IV-14-5	^{t}Bu	H	H	CH_2Ph	Et	H	F	F	OH	H	H	NH_2
IV-14-6	^{t}Bu	H	H	CH_2-indol-3-yl	Et	H	F	F	OH	H	H	NH_2
IV-14-7	^{t}Bu	H	H	$CH_2CH_2SCH_3$	Et	H	F	F	OH	H	H	NH_2
IV-14-8	^{t}Bu	*	H	*	Et	H	F	F	OH	H	H	NH_2

*R^2 and R^{3b} joined together by $(CH_2)_3$ to form five-membered ring.

Table IV-15.

№	R^1	R^2	R^{3a}	R^{3b}	R^4	R^5	R^6	X	Y	R^7	R^8	R^9

Gilead Exhibit 2023
PGR2023-00046 - Page 00147

№	R^1	R^2	R^{3a}	R^{3b}	R^4	R^5	R^6	X	Y	R^7	R^8	R^9
IV-15-1	Ph	H	H	H	Et	H	F	F	OH	H	H	NH_2
IV-15-2	Ph	H	H	CH_3	Et	H	F	F	OH	H	H	NH_2
IV-15-3	Ph	H	H	$CH(CH_3)_2$	Et	H	F	F	OH	H	H	NH_2
IV-15-4	Ph	H	H	$CH_2CH(CH_3)_2$	Et	H	F	F	OH	H	H	NH_2
IV-15-5	Ph	H	H	CH_2Ph	Et	H	F	F	OH	H	H	NH_2
IV-15-6	Ph	H	H	CH_2-indol-3-yl	Et	H	F	F	OH	H	H	NH_2
IV-15-7	Ph	H	H	$CH_2CH_2SCH_3$	Et	H	F	F	OH	H	H	NH_2
IV-15-8	Ph	*	H	*	Et	H	F	F	OH	H	H	NH_2

*R^2 and R^{3b} joined together by $(CH_2)_3$ to form five-membered ring.

Table IV-16.

№	R^1	R^2	R^{3a}	R^{3b}	R^4	R^5	R^6	X	Y	R^7	R^8	R^9
IV-16-1	p-Me-Ph	H	H	H	Et	H	F	F	OH	H	H	NH_2
IV-16-2	p-Me-Ph	H	H	CH_3	Et	H	F	F	OH	H	H	NH_2
IV-16-3	p-Me-Ph	H	H	$CH(CH_3)_2$	Et	H	F	F	OH	H	H	NH_2
IV-16-4	p-Me-Ph	H	H	$CH_2CH(CH_3)_2$	Et	H	F	F	OH	H	H	NH_2
IV-16-5	p-Me-Ph	H	H	CH_2Ph	Et	H	F	F	OH	H	H	NH_2
IV-16-6	p-Me-Ph	H	H	CH_2-indol-3-yl	Et	H	F	F	OH	H	H	NH_2
IV-16-7	p-Me-Ph	H	H	$CH_2CH_2SCH_3$	Et	H	F	F	OH	H	H	NH_2
IV-16-8	p-Me-Ph	*	H	*	Et	H	F	F	OH	H	H	NH_2

*R^2 and R^{3b} joined together by $(CH_2)_3$ to form five-membered ring.

Table IV-17.

№	R^1	R^2	R^{3a}	R^{3b}	R^4	R^5	R^6	X	Y	R^7	R^8	R^9
IV-17-1	p-F-Ph	H	H	H	Et	H	F	F	OH	H	H	NH_2
IV-17-2	p-F-Ph	H	H	CH_3	Et	H	F	F	OH	H	H	NH_2
IV-17-3	p-F-Ph	H	H	$CH(CH_3)_2$	Et	H	F	F	OH	H	H	NH_2
IV-17-4	p-F-Ph	H	H	$CH_2CH(CH_3)_2$	Et	H	F	F	OH	H	H	NH_2
IV-17-5	p-F-Ph	H	H	CH_2Ph	Et	H	F	F	OH	H	H	NH_2
IV-17-6	p-F-Ph	H	H	CH_2-indol-3-yl	Et	H	F	F	OH	H	H	NH_2
IV-17-7	p-F-Ph	H	H	$CH_2CH_2SCH_3$	Et	H	F	F	OH	H	H	NH_2
IV-17-8	p-F-Ph	*	H	*	Et	H	F	F	OH	H	H	NH_2

*R^2 and R^{3b} joined together by $(CH_2)_3$ to form five-membered ring.

Gilead Exhibit 2023
PGR2023-00046 - Page 00148

Table IV-18.

№	R^1	R^2	R^{3a}	R^{3b}	R^4	R^5	R^6	X	Y	R^7	R^8	R^9
IV-18-1	p-Cl-Ph	H	H	H	Et	H	F	F	OH	H	H	NH_2
IV-18-2	p-Cl-Ph	H	H	CH_3	Et	H	F	F	OH	H	H	NH_2
IV-18-3	p-Cl-Ph	H	H	$CH(CH_3)_2$	Et	H	F	F	OH	H	H	NH_2
IV-18-4	p-Cl-Ph	H	H	$CH_2CH(CH_3)_2$	Et	H	F	F	OH	H	H	NH_2
IV-18-5	p-Cl-Ph	H	H	CH_2Ph	Et	H	F	F	OH	H	H	NH_2
IV-18-6	p-Cl-Ph	H	H	CH_2-indol-3-yl	Et	H	F	F	OH	H	H	NH_2
IV-18-7	p-Cl-Ph	H	H	$CH_2CH_2SCH_3$	Et	H	F	F	OH	H	H	NH_2
IV-18-8	p-Cl-Ph	*	H	*	Et	H	F	F	OH	H	H	NH_2

*R^2 and R^{3b} joined together by $(CH_2)_3$ to form five-membered ring.

Table IV-19.

№	R^1	R^2	R^{3a}	R^{3b}	R^4	R^5	R^6	X	Y	R^7	R^8	R^9
IV-19-1	p-Br-Ph	H	H	H	Et	H	F	F	OH	H	H	NH_2
IV-19-2	p-Br-Ph	H	H	CH_3	Et	H	F	F	OH	H	H	NH_2
IV-19-3	p-Br-Ph	H	H	$CH(CH_3)_2$	Et	H	F	F	OH	H	H	NH_2
IV-19-4	p-Br-Ph	H	H	$CH_2CH(CH_3)_2$	Et	H	F	F	OH	H	H	NH_2
IV-19-5	p-Br-Ph	H	H	CH_2Ph	Et	H	F	F	OH	H	H	NH_2
IV-19-6	p-Br-Ph	H	H	CH_2-indol-3-yl	Et	H	F	F	OH	H	H	NH_2
IV-19-7	p-Br-Ph	H	H	$CH_2CH_2SCH_3$	Et	H	F	F	OH	H	H	NH_2
IV-19-8	p-Br-Ph	*	H	*	Et	H	F	F	OH	H	H	NH_2

*R^2 and R^{3b} joined together by $(CH_2)_3$ to form five-membered ring.

Table IV-20.

№	R^1	R^2	R^{3a}	R^{3b}	R^4	R^5	R^6	X	Y	R^7	R^8	R^9
IV-20-1	p-I-Ph	H	H	H	Et	H	F	F	OH	H	H	NH_2
IV-20-2	p-I-Ph	H	H	CH_3	Et	H	F	F	OH	H	H	NH_2
IV-20-3	p-I-Ph	H	H	$CH(CH_3)_2$	Et	H	F	F	OH	H	H	NH_2
IV-20-4	p-I-Ph	H	H	$CH_2CH(CH_3)_2$	Et	H	F	F	OH	H	H	NH_2
IV-20-5	p-I-Ph	H	H	CH_2Ph	Et	H	F	F	OH	H	H	NH_2
IV-20-6	p-I-Ph	H	H	CH_2-indol-3-yl	Et	H	F	F	OH	H	H	NH_2
IV-20-7	p-I-Ph	H	H	$CH_2CH_2SCH_3$	Et	H	F	F	OH	H	H	NH_2
IV-20-8	p-I-Ph	*	H	*	Et	H	F	F	OH	H	H	NH_2

*R^2 and R^{3b} joined together by $(CH_2)_3$ to form five-membered ring.

Gilead Exhibit 2023
PGR2023-00046 - Page 00149

Table IV-21.

№	R^1	R^2	R^{3a}	R^{3b}	R^4	R^5	R^6	X	Y	R^7	R^8	R^9
IV-21-1	CH_3	H	H	H	^{i}Pr	H	F	F	OH	H	H	NH_2
IV-21-2	CH_3	H	H	CH_3	^{i}Pr	H	F	F	OH	H	H	NH_2
IV-21-3	CH_3	H	H	$CH(CH_3)_2$	^{i}Pr	H	F	F	OH	H	H	NH_2
IV-21-4	CH_3	H	H	$CH_2CH(CH_3)_2$	^{i}Pr	H	F	F	OH	H	H	NH_2
IV-21-5	CH_3	H	H	CH_2Ph	^{i}Pr	H	F	F	OH	H	H	NH_2
IV-21-6	CH_3	H	H	CH_2-indol-3-yl	^{i}Pr	H	F	F	OH	H	H	NH_2
IV-21-7	CH_3	H	H	$CH_2CH_2SCH_3$	^{i}Pr	H	F	F	OH	H	H	NH_2
IV-21-8	CH_3	*	H	*	^{i}Pr	H	F	F	OH	H	H	NH_2

*R^2 and R^{3b} joined together by $(CH_2)_3$ to form five-membered ring.

Table IV-22.

№	R^1	R^2	R^{3a}	R^{3b}	R^4	R^5	R^6	X	Y	R^7	R^8	R^9
IV-22-1	Et	H	H	H	^{i}Pr	H	F	F	OH	H	H	NH_2
IV-22-2	Et	H	H	CH_3	^{i}Pr	H	F	F	OH	H	H	NH_2
IV-22-3	Et	H	H	$CH(CH_3)_2$	^{i}Pr	H	F	F	OH	H	H	NH_2
IV-22-4	Et	H	H	$CH_2CH(CH_3)_2$	^{i}Pr	H	F	F	OH	H	H	NH_2
IV-22-5	Et	H	H	CH_2Ph	^{i}Pr	H	F	F	OH	H	H	NH_2
IV-22-6	Et	H	H	CH_2-indol-3-yl	^{i}Pr	H	F	F	OH	H	H	NH_2
IV-22-7	Et	H	H	$CH_2CH_2SCH_3$	^{i}Pr	H	F	F	OH	H	H	NH_2
IV-22-8	Et	*	H	*	^{i}Pr	H	F	F	OH	H	H	NH_2

*R^2 and R^{3b} joined together by $(CH_2)_3$ to form five-membered ring.

Table IV-23.

№	R^1	R^2	R^{3a}	R^{3b}	R^4	R^5	R^6	X	Y	R^7	R^8	R^9
IV-23-1	^{i}Pr	H	H	H	^{i}Pr	H	F	F	OH	H	H	NH_2
IV-23-2	^{i}Pr	H	H	CH_3	^{i}Pr	H	F	F	OH	H	H	NH_2
IV-23-3	^{i}Pr	H	H	$CH(CH_3)_2$	^{i}Pr	H	F	F	OH	H	H	NH_2
IV-23-4	^{i}Pr	H	H	$CH_2CH(CH_3)_2$	^{i}Pr	H	F	F	OH	H	H	NH_2
IV-23-5	^{i}Pr	H	H	CH_2Ph	^{i}Pr	H	F	F	OH	H	H	NH_2
IV-23-6	^{i}Pr	H	H	CH_2-indol-3-yl	^{i}Pr	H	F	F	OH	H	H	NH_2
IV-23-7	^{i}Pr	H	H	$CH_2CH_2SCH_3$	^{i}Pr	H	F	F	OH	H	H	NH_2
IV-23-8	^{i}Pr	*	H	*	^{i}Pr	H	F	F	OH	H	H	NH_2

*R^2 and R^{3b} joined together by $(CH_2)_3$ to form five-membered ring.

Gilead Exhibit 2023
PGR2023-00046 - Page 00150

Table IV-24.

№	R^1	R^2	R^{3a}	R^{3b}	R^4	R^5	R^6	X	Y	R^7	R^8	R^9
IV-24-1	^{t}Bu	H	H	H	^{i}Pr	H	F	F	OH	H	H	NH_2
IV-24-2	^{t}Bu	H	H	CH_3	^{i}Pr	H	F	F	OH	H	H	NH_2
IV-24-3	^{t}Bu	H	H	$CH(CH_3)_2$	^{i}Pr	H	F	F	OH	H	H	NH_2
IV-24-4	^{t}Bu	H	H	$CH_2CH(CH_3)_2$	^{i}Pr	H	F	F	OH	H	H	NH_2
IV-24-5	^{t}Bu	H	H	CH_2Ph	^{i}Pr	H	F	F	OH	H	H	NH_2
IV-24-6	^{t}Bu	H	H	CH_2-indol-3-yl	^{i}Pr	H	F	F	OH	H	H	NH_2
IV-24-7	^{t}Bu	H	H	$CH_2CH_2SCH_3$	^{i}Pr	H	F	F	OH	H	H	NH_2
IV-24-8	^{t}Bu	*	H	*	^{i}Pr	H	F	F	OH	H	H	NH_2

*R^2 and R^{3b} joined together by $(CH_2)_3$ to form five-membered ring.

Table IV-25.

№	R^1	R^2	R^{3a}	R^{3b}	R^4	R^5	R^6	X	Y	R^7	R^8	R^9
IV-25-1	Ph	H	H	H	^{i}Pr	H	F	F	OH	H	H	NH_2
IV-25-2	Ph	H	H	CH_3	^{i}Pr	H	F	F	OH	H	H	NH_2
IV-25-3	Ph	H	H	$CH(CH_3)_2$	^{i}Pr	H	F	F	OH	H	H	NH_2
IV-25-4	Ph	H	H	$CH_2CH(CH_3)_2$	^{i}Pr	H	F	F	OH	H	H	NH_2
IV-25-5	Ph	H	H	CH_2Ph	^{i}Pr	H	F	F	OH	H	H	NH_2
IV-25-6	Ph	H	H	CH_2-indol-3-yl	^{i}Pr	H	F	F	OH	H	H	NH_2
IV-25-7	Ph	H	H	$CH_2CH_2SCH_3$	^{i}Pr	H	F	F	OH	H	H	NH_2
IV-25-8	Ph	*	H	*	^{i}Pr	H	F	F	OH	H	H	NH_2

*R^2 and R^{3b} joined together by $(CH_2)_3$ to form five-membered ring.

Table IV-26.

№	R^1	R^2	R^{3a}	R^{3b}	R^4	R^5	R^6	X	Y	R^7	R^8	R^9
IV-26-1	p-Me-Ph	H	H	H	^{i}Pr	H	F	F	OH	H	H	NH_2
IV-26-2	p-Me-Ph	H	H	CH_3	^{i}Pr	H	F	F	OH	H	H	NH_2
IV-26-3	p-Me-Ph	H	H	$CH(CH_3)_2$	^{i}Pr	H	F	F	OH	H	H	NH_2
IV-26-4	p-Me-Ph	H	H	$CH_2CH(CH_3)_2$	^{i}Pr	H	F	F	OH	H	H	NH_2
IV-26-5	p-Me-Ph	H	H	CH_2Ph	^{i}Pr	H	F	F	OH	H	H	NH_2
IV-26-6	p-Me-Ph	H	H	CH_2-indol-3-yl	^{i}Pr	H	F	F	OH	H	H	NH_2
IV-26-7	p-Me-Ph	H	H	$CH_2CH_2SCH_3$	^{i}Pr	H	F	F	OH	H	H	NH_2
IV-26-8	p-Me-Ph	*	H	*	^{i}Pr	H	F	F	OH	H	H	NH_2

*R^2 and R^{3b} joined together by $(CH_2)_3$ to form five-membered ring.

Gilead Exhibit 2023
PGR2023-00046 - Page 00151

Table IV-27.

№	R^1	R^2	R^{3a}	R^{3b}	R^4	R^5	R^6	X	Y	R^7	R^8	R^9
IV-27-1	p-F-Ph	H	H	H	^{i}Pr	H	F	F	OH	H	H	NH_2
IV-27-2	p-F-Ph	H	H	CH_3	^{i}Pr	H	F	F	OH	H	H	NH_2
IV-27-3	p-F-Ph	H	H	$CH(CH_3)_2$	^{i}Pr	H	F	F	OH	H	H	NH_2
IV-27-4	p-F-Ph	H	H	$CH_2CH(CH_3)_2$	^{i}Pr	H	F	F	OH	H	H	NH_2
IV-27-5	p-F-Ph	H	H	CH_2Ph	^{i}Pr	H	F	F	OH	H	H	NH_2
IV-27-6	p-F-Ph	H	H	CH_2-indol-3-yl	^{i}Pr	H	F	F	OH	H	H	NH_2
IV-27-7	p-F-Ph	H	H	$CH_2CH_2SCH_3$	^{i}Pr	H	F	F	OH	H	H	NH_2
IV-27-8	p-F-Ph	*	H	*	^{i}Pr	H	F	F	OH	H	H	NH_2

*R^2 and R^{3b} joined together by $(CH_2)_3$ to form five-membered ring.

Table IV-28.

№	R^1	R^2	R^{3a}	R^{3b}	R^4	R^5	R^6	X	Y	R^7	R^8	R^9
IV-28-1	p-Cl-Ph	H	H	H	^{i}Pr	H	F	F	OH	H	H	NH_2
IV-28-2	p-Cl-Ph	H	H	CH_3	^{i}Pr	H	F	F	OH	H	H	NH_2
IV-28-3	p-Cl-Ph	H	H	$CH(CH_3)_2$	^{i}Pr	H	F	F	OH	H	H	NH_2
IV-28-4	p-Cl-Ph	H	H	$CH_2CH(CH_3)_2$	^{i}Pr	H	F	F	OH	H	H	NH_2
IV-28-5	p-Cl-Ph	H	H	CH_2Ph	^{i}Pr	H	F	F	OH	H	H	NH_2
IV-28-6	p-Cl-Ph	H	H	CH_2-indol-3-yl	^{i}Pr	H	F	F	OH	H	H	NH_2
IV-28-7	p-Cl-Ph	H	H	$CH_2CH_2SCH_3$	^{i}Pr	H	F	F	OH	H	H	NH_2
IV-28-8	p-Cl-Ph	*	H	*	^{i}Pr	H	F	F	OH	H	H	NH_2

*R^2 and R^{3b} joined together by $(CH_2)_3$ to form five-membered ring.

Table IV-29.

№	R^1	R^2	R^{3a}	R^{3b}	R^4	R^5	R^6	X	Y	R^7	R^8	R^9
IV-29-1	p-Br-Ph	H	H	H	^{i}Pr	H	F	F	OH	H	H	NH_2
IV-29-2	p-Br-Ph	H	H	CH_3	^{i}Pr	H	F	F	OH	H	H	NH_2
IV-29-3	p-Br-Ph	H	H	$CH(CH_3)_2$	^{i}Pr	H	F	F	OH	H	H	NH_2
IV-29-4	p-Br-Ph	H	H	$CH_2CH(CH_3)_2$	^{i}Pr	H	F	F	OH	H	H	NH_2
IV-29-5	p-Br-Ph	H	H	CH_2Ph	^{i}Pr	H	F	F	OH	H	H	NH_2
IV-29-6	p-Br-Ph	H	H	CH_2-indol-3-yl	^{i}Pr	H	F	F	OH	H	H	NH_2
IV-29-7	p-Br-Ph	H	H	$CH_2CH_2SCH_3$	^{i}Pr	H	F	F	OH	H	H	NH_2
IV-29-8	p-Br-Ph	*	H	*	^{i}Pr	H	F	F	OH	H	H	NH_2

*R^2 and R^{3b} joined together by $(CH_2)_3$ to form five-membered ring.

Gilead Exhibit 2023
PGR2023-00046 - Page 00152

Table IV-30.

№	R^1	R^2	R^{3a}	R^{3b}	R^4	R^5	R^6	X	Y	R^7	R^8	R^9
IV-30-1	p-I-Ph	H	H	H	^{i}Pr	H	F	F	OH	H	H	NH_2
IV-30-2	p-I-Ph	H	H	CH_3	^{i}Pr	H	F	F	OH	H	H	NH_2
IV-30-3	p-I-Ph	H	H	$CH(CH_3)_2$	^{i}Pr	H	F	F	OH	H	H	NH_2
IV-30-4	p-I-Ph	H	H	$CH_2CH(CH_3)_2$	^{i}Pr	H	F	F	OH	H	H	NH_2
IV-30-5	p-I-Ph	H	H	CH_2Ph	^{i}Pr	H	F	F	OH	H	H	NH_2
IV-30-6	p-I-Ph	H	H	CH_2-indol-3-yl	^{i}Pr	H	F	F	OH	H	H	NH_2
IV-30-7	p-I-Ph	H	H	$CH_2CH_2SCH_3$	^{i}Pr	H	F	F	OH	H	H	NH_2
IV-30-8	p-I-Ph	*	H	*	^{i}Pr	H	F	F	OH	H	H	NH_2

*R^2 and R^{3b} joined together by $(CH_2)_3$ to form five-membered ring.

Table IV-31.

№	R^1	R^2	R^{3a}	R^{3b}	R^4	R^5	R^6	X	Y	R^7	R^8	R^9
IV-31-1	CH_3	H	H	H	^{n}Bu	H	F	F	OH	H	H	NH_2
IV-31-2	CH_3	H	H	CH_3	^{n}Bu	H	F	F	OH	H	H	NH_2
IV-31-3	CH_3	H	H	$CH(CH_3)_2$	^{n}Bu	H	F	F	OH	H	H	NH_2
IV-31-4	CH_3	H	H	$CH_2CH(CH_3)_2$	^{n}Bu	H	F	F	OH	H	H	NH_2
IV-31-5	CH_3	H	H	CH_2Ph	^{n}Bu	H	F	F	OH	H	H	NH_2
IV-31-6	CH_3	H	H	CH_2-indol-3-yl	^{n}Bu	H	F	F	OH	H	H	NH_2
IV-31-7	CH_3	H	H	$CH_2CH_2SCH_3$	^{n}Bu	H	F	F	OH	H	H	NH_2
IV-31-8	CH_3	*	H	*	^{n}Bu	H	F	F	OH	H	H	NH_2

*R^2 and R^{3b} joined together by $(CH_2)_3$ to form five-membered ring.

Table IV-32.

№	R^1	R^2	R^{3a}	R^{3b}	R^4	R^5	R^6	X	Y	R^7	R^8	R^9
IV-32-1	Et	H	H	H	^{n}Bu	H	F	F	OH	H	H	NH_2
IV-32-2	Et	H	H	CH_3	^{n}Bu	H	F	F	OH	H	H	NH_2
IV-32-3	Et	H	H	$CH(CH_3)_2$	^{n}Bu	H	F	F	OH	H	H	NH_2
IV-32-4	Et	H	H	$CH_2CH(CH_3)_2$	^{n}Bu	H	F	F	OH	H	H	NH_2
IV-32-5	Et	H	H	CH_2Ph	^{n}Bu	H	F	F	OH	H	H	NH_2
IV-32-6	Et	H	H	CH_2-indol-3-yl	^{n}Bu	H	F	F	OH	H	H	NH_2
IV-32-7	Et	H	H	$CH_2CH_2SCH_3$	^{n}Bu	H	F	F	OH	H	H	NH_2
IV-32-8	Et	*	H	*	^{n}Bu	H	F	F	OH	H	H	NH_2

*R^2 and R^{3b} joined together by $(CH_2)_3$ to form five-membered ring.

Gilead Exhibit 2023
PGR2023-00046 - Page 00153

Table IV-33.

№	R^1	R^2	R^{3a}	R^{3b}	R^4	R^5	R^6	X	Y	R^7	R^8	R^9
IV-33-1	^{i}Pr	H	H	H	^{n}Bu	H	F	F	OH	H	H	NH_2
IV-33-2	^{i}Pr	H	H	CH_3	^{n}Bu	H	F	F	OH	H	H	NH_2
IV-33-3	^{i}Pr	H	H	$CH(CH_3)_2$	^{n}Bu	H	F	F	OH	H	H	NH_2
IV-33-4	^{i}Pr	H	H	$CH_2CH(CH_3)_2$	^{n}Bu	H	F	F	OH	H	H	NH_2
IV-33-5	^{i}Pr	H	H	CH_2Ph	^{n}Bu	H	F	F	OH	H	H	NH_2
IV-33-6	^{i}Pr	H	H	CH_2-indol-3-yl	^{n}Bu	H	F	F	OH	H	H	NH_2
IV-33-7	^{i}Pr	H	H	$CH_2CH_2SCH_3$	^{n}Bu	H	F	F	OH	H	H	NH_2
IV-33-8	^{i}Pr	*	H	*	^{n}Bu	H	F	F	OH	H	H	NH_2

*R^2 and R^{3b} joined together by $(CH_2)_3$ to form five-membered ring.

Table IV-34.

№	R^1	R^2	R^{3a}	R^{3b}	R^4	R^5	R^6	X	Y	R^7	R^8	R^9
IV-34-1	^{t}Bu	H	H	H	^{n}Bu	H	F	F	OH	H	H	NH_2
IV-34-2	^{t}Bu	H	H	CH_3	^{n}Bu	H	F	F	OH	H	H	NH_2
IV-34-3	^{t}Bu	H	H	$CH(CH_3)_2$	^{n}Bu	H	F	F	OH	H	H	NH_2
IV-34-4	^{t}Bu	H	H	$CH_2CH(CH_3)_2$	^{n}Bu	H	F	F	OH	H	H	NH_2
IV-34-5	^{t}Bu	H	H	CH_2Ph	^{n}Bu	H	F	F	OH	H	H	NH_2
IV-34-6	^{t}Bu	H	H	CH_2-indol-3-yl	^{n}Bu	H	F	F	OH	H	H	NH_2
IV-34-7	^{t}Bu	H	H	$CH_2CH_2SCH_3$	^{n}Bu	H	F	F	OH	H	H	NH_2
IV-34-8	^{t}Bu	*	H	*	^{n}Bu	H	F	F	OH	H	H	NH_2

*R^2 and R^{3b} joined together by $(CH_2)_3$ to form five-membered ring.

Table IV-35.

№	R^1	R^2	R^{3a}	R^{3b}	R^4	R^5	R^6	X	Y	R^7	R^8	R^9
IV-35-1	Ph	H	H	H	^{n}Bu	H	F	F	OH	H	H	NH_2
IV-35-2	Ph	H	H	CH_3	^{n}Bu	H	F	F	OH	H	H	NH_2
IV-35-3	Ph	H	H	$CH(CH_3)_2$	^{n}Bu	H	F	F	OH	H	H	NH_2
IV-35-4	Ph	H	H	$CH_2CH(CH_3)_2$	^{n}Bu	H	F	F	OH	H	H	NH_2
IV-35-5	Ph	H	H	CH_2Ph	^{n}Bu	H	F	F	OH	H	H	NH_2
IV-35-6	Ph	H	H	CH_2-indol-3-yl	^{n}Bu	H	F	F	OH	H	H	NH_2
IV-35-7	Ph	H	H	$CH_2CH_2SCH_3$	^{n}Bu	H	F	F	OH	H	H	NH_2
IV-35-8	Ph	*	H	*	^{n}Bu	H	F	F	OH	H	H	NH_2

*R^2 and R^{3b} joined together by $(CH_2)_3$ to form five-membered ring.

Gilead Exhibit 2023
PGR2023-00046 - Page 00154

Table IV-36.

№	R^1	R^2	R^{3a}	R^{3b}	R^4	R^5	R^6	X	Y	R^7	R^8	R^9
IV-36-1	p-Me-Ph	H	H	H	^{n}Bu	H	F	F	OH	H	H	NH_2
IV-36-2	p-Me-Ph	H	H	CH_3	^{n}Bu	H	F	F	OH	H	H	NH_2
IV-36-3	p-Me-Ph	H	H	$CH(CH_3)_2$	^{n}Bu	H	F	F	OH	H	H	NH_2
IV-36-4	p-Me-Ph	H	H	$CH_2CH(CH_3)_2$	^{n}Bu	H	F	F	OH	H	H	NH_2
IV-36-5	p-Me-Ph	H	H	CH_2Ph	^{n}Bu	H	F	F	OH	H	H	NH_2
IV-36-6	p-Me-Ph	H	H	CH_2-indol-3-yl	^{n}Bu	H	F	F	OH	H	H	NH_2
IV-36-7	p-Me-Ph	H	H	$CH_2CH_2SCH_3$	^{n}Bu	H	F	F	OH	H	H	NH_2
IV-36-8	p-Me-Ph	*	H	*	^{n}Bu	H	F	F	OH	H	H	NH_2

*R^2 and R^{3b} joined together by $(CH_2)_3$ to form five-membered ring.

Table IV-37.

№	R^1	R^2	R^{3a}	R^{3b}	R^4	R^5	R^6	X	Y	R^7	R^8	R^9
IV-37-1	p-F-Ph	H	H	H	^{n}Bu	H	F	F	OH	H	H	NH_2
IV-37-2	p-F-Ph	H	H	CH_3	^{n}Bu	H	F	F	OH	H	H	NH_2
IV-37-3	p-F-Ph	H	H	$CH(CH_3)_2$	^{n}Bu	H	F	F	OH	H	H	NH_2
IV-37-4	p-F-Ph	H	H	$CH_2CH(CH_3)_2$	^{n}Bu	H	F	F	OH	H	H	NH_2
IV-37-5	p-F-Ph	H	H	CH_2Ph	^{n}Bu	H	F	F	OH	H	H	NH_2
IV-37-6	p-F-Ph	H	H	CH_2-indol-3-yl	^{n}Bu	H	F	F	OH	H	H	NH_2
IV-37-7	p-F-Ph	H	H	$CH_2CH_2SCH_3$	^{n}Bu	H	F	F	OH	H	H	NH_2
IV-37-8	p-F-Ph	*	H	*	^{n}Bu	H	F	F	OH	H	H	NH_2

*R^2 and R^{3b} joined together by $(CH_2)_3$ to form five-membered ring.

Table IV-38.

№	R^1	R^2	R^{3a}	R^{3b}	R^4	R^5	R^6	X	Y	R^7	R^8	R^9
IV-38-1	p-Cl-Ph	H	H	H	^{n}Bu	H	F	F	OH	H	H	NH_2
IV-38-2	p-Cl-Ph	H	H	CH_3	^{n}Bu	H	F	F	OH	H	H	NH_2
IV-38-3	p-Cl-Ph	H	H	$CH(CH_3)_2$	^{n}Bu	H	F	F	OH	H	H	NH_2
IV-38-4	p-Cl-Ph	H	H	$CH_2CH(CH_3)_2$	^{n}Bu	H	F	F	OH	H	H	NH_2
IV-38-5	p-Cl-Ph	H	H	CH_2Ph	^{n}Bu	H	F	F	OH	H	H	NH_2
IV-38-6	p-Cl-Ph	H	H	CH_2-indol-3-yl	^{n}Bu	H	F	F	OH	H	H	NH_2
IV-38-7	p-Cl-Ph	H	H	$CH_2CH_2SCH_3$	^{n}Bu	H	F	F	OH	H	H	NH_2
IV-38-8	p-Cl-Ph	*	H	*	^{n}Bu	H	F	F	OH	H	H	NH_2

*R^2 and R^{3b} joined together by $(CH_2)_3$ to form five-membered ring.

Gilead Exhibit 2023
PGR2023-00046 - Page 00155

Table IV-39.

№	R^1	R^2	R^{3a}	R^{3b}	R^4	R^5	R^6	X	Y	R^7	R^8	R^9
IV-39-1	p-Br-Ph	H	H	H	^{n}Bu	H	F	F	OH	H	H	NH_2
IV-39-2	p-Br-Ph	H	H	CH_3	^{n}Bu	H	F	F	OH	H	H	NH_2
IV-39-3	p-Br-Ph	H	H	$CH(CH_3)_2$	^{n}Bu	H	F	F	OH	H	H	NH_2
IV-39-4	p-Br-Ph	H	H	$CH_2CH(CH_3)_2$	^{n}Bu	H	F	F	OH	H	H	NH_2
IV-39-5	p-Br-Ph	H	H	CH_2Ph	^{n}Bu	H	F	F	OH	H	H	NH_2
IV-39-6	p-Br-Ph	H	H	CH_2-indol-3-yl	^{n}Bu	H	F	F	OH	H	H	NH_2
IV-39-7	p-Br-Ph	H	H	$CH_2CH_2SCH_3$	^{n}Bu	H	F	F	OH	H	H	NH_2
IV-39-8	p-Br-Ph	*	H	*	^{n}Bu	H	F	F	OH	H	H	NH_2

*R^2 and R^{3b} joined together by $(CH_2)_3$ to form five-membered ring.

Table IV-40.

№	R^1	R^2	R^{3a}	R^{3b}	R^4	R^5	R^6	X	Y	R^7	R^8	R^9
IV-40-1	p-I-Ph	H	H	H	^{n}Bu	H	F	F	OH	H	H	NH_2
IV-40-2	p-I-Ph	H	H	CH_3	^{n}Bu	H	F	F	OH	H	H	NH_2
IV-40-3	p-I-Ph	H	H	$CH(CH_3)_2$	^{n}Bu	H	F	F	OH	H	H	NH_2
IV-40-4	p-I-Ph	H	H	$CH_2CH(CH_3)_2$	^{n}Bu	H	F	F	OH	H	H	NH_2
IV-40-5	p-I-Ph	H	H	CH_2Ph	^{n}Bu	H	F	F	OH	H	H	NH_2
IV-40-6	p-I-Ph	H	H	CH_2-indol-3-yl	^{n}Bu	H	F	F	OH	H	H	NH_2
IV-40-7	p-I-Ph	H	H	$CH_2CH_2SCH_3$	^{n}Bu	H	F	F	OH	H	H	NH_2
IV-40-8	p-I-Ph	*	H	*	^{n}Bu	H	F	F	OH	H	H	NH_2

*R^2 and R^{3b} joined together by $(CH_2)_3$ to form five-membered ring.

Table IV-41.

№	R^1	R^2	R^{3a}	R^{3b}	R^4	R^5	R^6	X	Y	R^7	R^8	R^9
IV-41-1	CH_3	H	H	H	Bz	H	F	F	OH	H	H	NH_2
IV-41-2	CH_3	H	H	CH_3	Bz	H	F	F	OH	H	H	NH_2
IV-41-3	CH_3	H	H	$CH(CH_3)_2$	Bz	H	F	F	OH	H	H	NH_2
IV-41-4	CH_3	H	H	$CH_2CH(CH_3)_2$	Bz	H	F	F	OH	H	H	NH_2
IV-41-5	CH_3	H	H	CH_2Ph	Bz	H	F	F	OH	H	H	NH_2
IV-41-6	CH_3	H	H	CH_2-indol-3-yl	Bz	H	F	F	OH	H	H	NH_2
IV-41-7	CH_3	H	H	$CH_2CH_2SCH_3$	Bz	H	F	F	OH	H	H	NH_2
IV-41-8	CH_3	*	H	*	Bz	H	F	F	OH	H	H	NH_2

*R^2 and R^{3b} joined together by $(CH_2)_3$ to form five-membered ring.

Gilead Exhibit 2023
PGR2023-00046 - Page 00156

Table IV-42.

№	R^1	R^2	R^{3a}	R^{3b}	R^4	R^5	R^6	X	Y	R^7	R^8	R^9
IV-42-1	Et	H	H	H	Bz	H	F	F	OH	H	H	NH_2
IV-42-2	Et	H	H	CH_3	Bz	H	F	F	OH	H	H	NH_2
IV-42-3	Et	H	H	$CH(CH_3)_2$	Bz	H	F	F	OH	H	H	NH_2
IV-42-4	Et	H	H	$CH_2CH(CH_3)_2$	Bz	H	F	F	OH	H	H	NH_2
IV-42-5	Et	H	H	CH_2Ph	Bz	H	F	F	OH	H	H	NH_2
IV-42-6	Et	H	H	CH_2-indol-3-yl	Bz	H	F	F	OH	H	H	NH_2
IV-42-7	Et	H	H	$CH_2CH_2SCH_3$	Bz	H	F	F	OH	H	H	NH_2
IV-42-8	Et	*	H	*	Bz	H	F	F	OH	H	H	NH_2

*R^2 and R^{3b} joined together by $(CH_2)_3$ to form five-membered ring.

Table IV-43.

№	R^1	R^2	R^{3a}	R^{3b}	R^4	R^5	R^6	X	Y	R^7	R^8	R^9
IV-43-1	^{i}Pr	H	H	H	Bz	H	F	F	OH	H	H	NH_2
IV-43-2	^{i}Pr	H	H	CH_3	Bz	H	F	F	OH	H	H	NH_2
IV-43-3	^{i}Pr	H	H	$CH(CH_3)_2$	Bz	H	F	F	OH	H	H	NH_2
IV-43-4	^{i}Pr	H	H	$CH_2CH(CH_3)_2$	Bz	H	F	F	OH	H	H	NH_2
IV-43-5	^{i}Pr	H	H	CH_2Ph	Bz	H	F	F	OH	H	H	NH_2
IV-43-6	^{i}Pr	H	H	CH_2-indol-3-yl	Bz	H	F	F	OH	H	H	NH_2
IV-43-7	^{i}Pr	H	H	$CH_2CH_2SCH_3$	Bz	H	F	F	OH	H	H	NH_2
IV-43-8	^{i}Pr	*	H	*	Bz	H	F	F	OH	H	H	NH_2

*R^2 and R^{3b} joined together by $(CH_2)_3$ to form five-membered ring.

Table IV-44.

№	R^1	R^2	R^{3a}	R^{3b}	R^4	R^5	R^6	X	Y	R^7	R^8	R^9
IV-44-1	^{t}Bu	H	H	H	Bz	H	F	F	OH	H	H	NH_2
IV-44-2	^{t}Bu	H	H	CH_3	Bz	H	F	F	OH	H	H	NH_2
IV-44-3	^{t}Bu	H	H	$CH(CH_3)_2$	Bz	H	F	F	OH	H	H	NH_2
IV-44-4	^{t}Bu	H	H	$CH_2CH(CH_3)_2$	Bz	H	F	F	OH	H	H	NH_2
IV-44-5	^{t}Bu	H	H	CH_2Ph	Bz	H	F	F	OH	H	H	NH_2
IV-44-6	^{t}Bu	H	H	CH_2-indol-3-yl	Bz	H	F	F	OH	H	H	NH_2
IV-44-7	^{t}Bu	H	H	$CH_2CH_2SCH_3$	Bz	H	F	F	OH	H	H	NH_2
IV-44-8	^{t}Bu	*	H	*	Bz	H	F	F	OH	H	H	NH_2

Gilead Exhibit 2023
PGR2023-00046 - Page 00157

*R^2 and R^{3b} joined together by $(CH_2)_3$ to form five-membered ring.

Table IV-45.

№	R^1	R^2	R^{3a}	R^{3b}	R^4	R^5	R^6	X	Y	R^7	R^8	R^9
IV-45-1	Ph	H	H	H	Bz	H	F	F	OH	H	H	NH_2
IV-45-2	Ph	H	H	CH_3	Bz	H	F	F	OH	H	H	NH_2
IV-45-3	Ph	H	H	$CH(CH_3)_2$	Bz	H	F	F	OH	H	H	NH_2
IV-45-4	Ph	H	H	$CH_2CH(CH_3)_2$	Bz	H	F	F	OH	H	H	NH_2
IV-45-5	Ph	H	H	CH_2Ph	Bz	H	F	F	OH	H	H	NH_2
IV-45-6	Ph	H	H	CH_2-indol-3-yl	Bz	H	F	F	OH	H	H	NH_2
IV-45-7	Ph	H	H	$CH_2CH_2SCH_3$	Bz	H	F	F	OH	H	H	NH_2
IV-45-8	Ph	*	H	*	Bz	H	F	F	OH	H	H	NH_2

*R^2 and R^{3b} joined together by $(CH_2)_3$ to form five-membered ring.

Table IV-46.

№	R^1	R^2	R^{3a}	R^{3b}	R^4	R^5	R^6	X	Y	R^7	R^8	R^9
IV-46-1	p-Me-Ph	H	H	H	Bz	H	F	F	OH	H	H	NH_2
IV-46-2	p-Me-Ph	H	H	CH_3	Bz	H	F	F	OH	H	H	NH_2
IV-46-3	p-Me-Ph	H	H	$CH(CH_3)_2$	Bz	H	F	F	OH	H	H	NH_2
IV-46-4	p-Me-Ph	H	H	$CH_2CH(CH_3)_2$	Bz	H	F	F	OH	H	H	NH_2
IV-46-5	p-Me-Ph	H	H	CH_2Ph	Bz	H	F	F	OH	H	H	NH_2
IV-46-6	p-Me-Ph	H	H	CH_2-indol-3-yl	Bz	H	F	F	OH	H	H	NH_2
IV-46-7	p-Me-Ph	H	H	$CH_2CH_2SCH_3$	Bz	H	F	F	OH	H	H	NH_2
IV-46-8	p-Me-Ph	*	H	*	Bz	H	F	F	OH	H	H	NH_2

*R^2 and R^{3b} joined together by $(CH_2)_3$ to form five-membered ring.

Table IV-47.

№	R^1	R^2	R^{3a}	R^{3b}	R^4	R^5	R^6	X	Y	R^7	R^8	R^9
IV-47-1	p-F-Ph	H	H	H	Bz	H	F	F	OH	H	H	NH_2
IV-47-2	p-F-Ph	H	H	CH_3	Bz	H	F	F	OH	H	H	NH_2
IV-47-3	p-F-Ph	H	H	$CH(CH_3)_2$	Bz	H	F	F	OH	H	H	NH_2
IV-47-4	p-F-Ph	H	H	$CH_2CH(CH_3)_2$	Bz	H	F	F	OH	H	H	NH_2
IV-47-5	p-F-Ph	H	H	CH_2Ph	Bz	H	F	F	OH	H	H	NH_2
IV-47-6	p-F-Ph	H	H	CH_2-indol-3-yl	Bz	H	F	F	OH	H	H	NH_2
IV-47-7	p-F-Ph	H	H	$CH_2CH_2SCH_3$	Bz	H	F	F	OH	H	H	NH_2

Gilead Exhibit 2023
PGR2023-00046 - Page 00158

№	R^1	R^2	R^{3a}	R^{3b}	R^4	R^5	R^6	X	Y	R^7	R^8	R^9
IV-47-8	p-F-Ph	*	H	*	Bz	H	F	F	OH	H	H	NH_2

*R^2 and R^{3b} joined together by $(CH_2)_3$ to form five-membered ring.

Table IV-48.

№	R^1	R^2	R^{3a}	R^{3b}	R^4	R^5	R^6	X	Y	R^7	R^8	R^9
IV-48-1	p-Cl-Ph	H	H	H	Bz	H	F	F	OH	H	H	NH_2
IV-48-2	p-Cl-Ph	H	H	CH_3	Bz	H	F	F	OH	H	H	NH_2
IV-48-3	p-Cl-Ph	H	H	$CH(CH_3)_2$	Bz	H	F	F	OH	H	H	NH_2
IV-48-4	p-Cl-Ph	H	H	$CH_2CH(CH_3)_2$	Bz	H	F	F	OH	H	H	NH_2
IV-48-5	p-Cl-Ph	H	H	CH_2Ph	Bz	H	F	F	OH	H	H	NH_2
IV-48-6	p-Cl-Ph	H	H	CH_2-indol-3-yl	Bz	H	F	F	OH	H	H	NH_2
IV-48-7	p-Cl-Ph	H	H	$CH_2CH_2SCH_3$	Bz	H	F	F	OH	H	H	NH_2
IV-48-8	p-Cl-Ph	*	H	*	Bz	H	F	F	OH	H	H	NH_2

*R^2 and R^{3b} joined together by $(CH_2)_3$ to form five-membered ring.

Table IV-49.

№	R^1	R^2	R^{3a}	R^{3b}	R^4	R^5	R^6	X	Y	R^7	R^8	R^9
IV-49-1	p-Br-Ph	H	H	H	Bz	H	F	F	OH	H	H	NH_2
IV-49-2	p-Br-Ph	H	H	CH_3	Bz	H	F	F	OH	H	H	NH_2
IV-49-3	p-Br-Ph	H	H	$CH(CH_3)_2$	Bz	H	F	F	OH	H	H	NH_2
IV-49-4	p-Br-Ph	H	H	$CH_2CH(CH_3)_2$	Bz	H	F	F	OH	H	H	NH_2
IV-49-5	p-Br-Ph	H	H	CH_2Ph	Bz	H	F	F	OH	H	H	NH_2
IV-49-6	p-Br-Ph	H	H	CH_2-indol-3-yl	Bz	H	F	F	OH	H	H	NH_2
IV-49-7	p-Br-Ph	H	H	$CH_2CH_2SCH_3$	Bz	H	F	F	OH	H	H	NH_2
IV-49-8	p-Br-Ph	*	H	*	Bz	H	F	F	OH	H	H	NH_2

*R^2 and R^{3b} joined together by $(CH_2)_3$ to form five-membered ring.

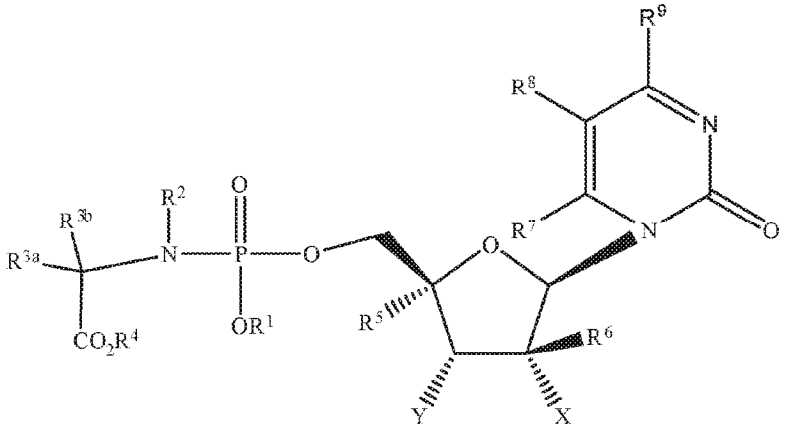
Table IV-50.

№	R^1	R^2	R^{3a}	R^{3b}	R^4	R^5	R^6	X	Y	R^7	R^8	R^9
IV-50-1	p-I-Ph	H	H	H	Bz	H	F	F	OH	H	H	NH_2
IV-50-2	p-I-Ph	H	H	CH_3	Bz	H	F	F	OH	H	H	NH_2
IV-50-3	p-I-Ph	H	H	$CH(CH_3)_2$	Bz	H	F	F	OH	H	H	NH_2
IV-50-4	p-I-Ph	H	H	$CH_2CH(CH_3)_2$	Bz	H	F	F	OH	H	H	NH_2
IV-50-5	p-I-Ph	H	H	CH_2Ph	Bz	H	F	F	OH	H	H	NH_2

Gilead Exhibit 2023
PGR2023-00046 - Page 00159

№	R^1	R^2	R^{3a}	R^{3b}	R^4	R^5	R^6	X	Y	R^7	R^8	R^9
IV-50-6	p-I-Ph	H	H	CH_2-indol-3-yl	Bz	H	F	F	OH	H	H	NH_2
IV-50-7	p-I-Ph	H	H	$CH_2CH_2SCH_3$	Bz	H	F	F	OH	H	H	NH_2
IV-50-8	p-I-Ph	*	H	*	Bz	H	F	F	OH	H	H	NH_2

*R^2 and R^{3b} joined together by $(CH_2)_3$ to form five-membered ring.



V

Table V-1.

№	R^1	R^2	R^{3a}	R^{3b}	R^4	R^5	R^6	X	Y	R^7	R^8	R^9
V-1-1	CH_3	H	H	H	CH_3	H	H	F	OH	H	H	NH_2
V-1-2	CH_3	H	H	CH_3	CH_3	H	H	F	OH	H	H	NH_2
V-1-3	CH_3	H	H	$CH(CH_3)_2$	CH_3	H	H	F	OH	H	H	NH_2
V-1-4	CH_3	H	H	$CH_2CH(CH_3)_2$	CH_3	H	H	F	OH	H	H	NH_2
V-1-5	CH_3	H	H	CH_2Ph	CH_3	H	H	F	OH	H	H	NH_2
V-1-6	CH_3	H	H	CH_2-indol-3-yl	CH_3	H	H	F	OH	H	H	NH_2
V-1-7	CH_3	H	H	$CH_2CH_2SCH_3$	CH_3	H	H	F	OH	H	H	NH_2
V-1-8	CH_3	*	H	*	CH_3	H	H	F	OH	H	H	NH_2

*R^2 and R^{3b} joined together by $(CH_2)_3$ to form five-membered ring.

Table V-2.

№	R^1	R^2	R^{3a}	R^{3b}	R^4	R^5	R^6	X	Y	R^7	R^8	R^9
V-2-1	Et	H	H	H	CH_3	H	H	F	OH	H	H	NH_2
V-2-2	Et	H	H	CH_3	CH_3	H	H	F	OH	H	H	NH_2

Gilead Exhibit 2023
PGR2023-00046 - Page 00160

№	R^1	R^2	R^{3a}	R^{3b}	R^4	R^5	R^6	X	Y	R^7	R^8	R^9
V-2-3	Et	H	H	$CH(CH_3)_2$	CH_3	H	H	F	OH	H	H	NH_2
V-2-4	Et	H	H	$CH_2CH(CH_3)_2$	CH_3	H	H	F	OH	H	H	NH_2
V-2-5	Et	H	H	CH_2Ph	CH_3	H	H	F	OH	H	H	NH_2
V-2-6	Et	H	H	CH_2-indol-3-yl	CH_3	H	H	F	OH	H	H	NH_2
V-2-7	Et	H	H	$CH_2CH_2SCH_3$	CH_3	H	H	F	OH	H	H	NH_2
V-2-8	Et	*	H	*	CH_3	H	H	F	OH	H	H	NH_2

*R^2 and R^{3b} joined together by $(CH_2)_3$ to form five-membered ring.

Table V-3.

№	R^1	R^2	R^{3a}	R^{3b}	R^4	R^5	R^6	X	Y	R^7	R^8	R^9
V-3-1	^{i}Pr	H	H	H	CH_3	H	H	F	OH	H	H	NH_2
V-3-2	^{i}Pr	H	H	CH_3	CH_3	H	H	F	OH	H	H	NH_2
V-3-3	^{i}Pr	H	H	$CH(CH_3)_2$	CH_3	H	H	F	OH	H	H	NH_2
V-3-4	^{i}Pr	H	H	$CH_2CH(CH_3)_2$	CH_3	H	H	F	OH	H	H	NH_2
V-3-5	^{i}Pr	H	H	CH_2Ph	CH_3	H	H	F	OH	H	H	NH_2
V-3-6	^{i}Pr	H	H	CH_2-indol-3-yl	CH_3	H	H	F	OH	H	H	NH_2
V-3-7	^{i}Pr	H	H	$CH_2CH_2SCH_3$	CH_3	H	H	F	OH	H	H	NH_2
V-3-8	^{i}Pr	*	H	*	CH_3	H	H	F	OH	H	H	NH_2

*R^2 and R^{3b} joined together by $(CH_2)_3$ to form five-membered ring.

Table V-4.

№	R^1	R^2	R^{3a}	R^{3b}	R^4	R^5	R^6	X	Y	R^7	R^8	R^9
V-4-1	^{t}Bu	H	H	H	CH_3	H	H	F	OH	H	H	NH_2
V-4-2	^{t}Bu	H	H	CH_3	CH_3	H	H	F	OH	H	H	NH_2
V-4-3	^{t}Bu	H	H	$CH(CH_3)_2$	CH_3	H	H	F	OH	H	H	NH_2
V-4-4	^{t}Bu	H	H	$CH_2CH(CH_3)_2$	CH_3	H	H	F	OH	H	H	NH_2
V-4-5	^{t}Bu	H	H	CH_2Ph	CH_3	H	H	F	OH	H	H	NH_2
V-4-6	^{t}Bu	H	H	CH_2-indol-3-yl	CH_3	H	H	F	OH	H	H	NH_2
V-4-7	^{t}Bu	H	H	$CH_2CH_2SCH_3$	CH_3	H	H	F	OH	H	H	NH_2
V-4-8	^{t}Bu	*	H	*	CH_3	H	H	F	OH	H	H	NH_2

*R^2 and R^{3b} joined together by $(CH_2)_3$ to form five-membered ring.

Table V-5.

№	R^1	R^2	R^{3a}	R^{3b}	R^4	R^5	R^6	X	Y	R^7	R^8	R^9

Gilead Exhibit 2023
PGR2023-00046 - Page 00161

№	R^1	R^2	R^{3a}	R^{3b}	R^4	R^5	R^6	X	Y	R^7	R^8	R^9
V-5-1	Ph	H	H	H	CH_3	H	H	F	OH	H	H	NH_2
V-5-2	Ph	H	H	CH_3	CH_3	H	H	F	OH	H	H	NH_2
V-5-3	Ph	H	H	$CH(CH_3)_2$	CH_3	H	H	F	OH	H	H	NH_2
V-5-4	Ph	H	H	$CH_2CH(CH_3)_2$	CH_3	H	H	F	OH	H	H	NH_2
V-5-5	Ph	H	H	CH_2Ph	CH_3	H	H	F	OH	H	H	NH_2
V-5-6	Ph	H	H	CH_2-indol-3-yl	CH_3	H	H	F	OH	H	H	NH_2
V-5-7	Ph	H	H	$CH_2CH_2SCH_3$	CH_3	H	H	F	OH	H	H	NH_2
V-5-8	Ph	*	H	*	CH_3	H	H	F	OH	H	H	NH_2

*R^2 and R^{3b} joined together by $(CH_2)_3$ to form five-membered ring.

Table V-6.

№	R^1	R^2	R^{3a}	R^{3b}	R^4	R^5	R^6	X	Y	R^7	R^8	R^9
V-6-1	p-Me-Ph	H	H	H	CH_3	H	H	F	OH	H	H	NH_2
V-6-2	p-Me-Ph	H	H	CH_3	CH_3	H	H	F	OH	H	H	NH_2
V-6-3	p-Me-Ph	H	H	$CH(CH_3)_2$	CH_3	H	H	F	OH	H	H	NH_2
V-6-4	p-Me-Ph	H	H	$CH_2CH(CH_3)_2$	CH_3	H	H	F	OH	H	H	NH_2
V-6-5	p-Me-Ph	H	H	CH_2Ph	CH_3	H	H	F	OH	H	H	NH_2
V-6-6	p-Me-Ph	H	H	CH_2-indol-3-yl	CH_3	H	H	F	OH	H	H	NH_2
V-6-7	p-Me-Ph	H	H	$CH_2CH_2SCH_3$	CH_3	H	H	F	OH	H	H	NH_2
V-6-8	p-Me-Ph	*	H	*	CH_3	H	H	F	OH	H	H	NH_2

*R^2 and R^{3b} joined together by $(CH_2)_3$ to form five-membered ring.

Table V-7.

№	R^1	R^2	R^{3a}	R^{3b}	R^4	R^5	R^6	X	Y	R^7	R^8	R^9
V-7-1	p-F-Ph	H	H	H	CH_3	H	H	F	OH	H	H	NH_2
V-7-2	p-F-Ph	H	H	CH_3	CH_3	H	H	F	OH	H	H	NH_2
V-7-3	p-F-Ph	H	H	$CH(CH_3)_2$	CH_3	H	H	F	OH	H	H	NH_2
V-7-4	p-F-Ph	H	H	$CH_2CH(CH_3)_2$	CH_3	H	H	F	OH	H	H	NH_2
V-7-6	p-F-Ph	H	H	CH_2Ph	CH_3	H	H	F	OH	H	H	NH_2
V-7-7	p-F-Ph	H	H	CH_2-indol-3-yl	CH_3	H	H	F	OH	H	H	NH_2
V-7-8	p-F-Ph	H	H	$CH_2CH_2SCH_3$	CH_3	H	H	F	OH	H	H	NH_2
V-7-20	p-F-Ph	*	H	*	CH_3	H	H	F	OH	H	H	NH_2

*R^2 and R^{3b} joined together by $(CH_2)_3$ to form five-membered ring.

Gilead Exhibit 2023
PGR2023-00046 - Page 00162

Table V-8.

№	R^1	R^2	R^{3a}	R^{3b}	R^4	R^5	R^6	X	Y	R^7	R^8	R^9
V-8-1	p-Cl-Ph	H	H	H	CH_3	H	H	F	OH	H	H	NH_2
V-8-2	p-Cl-Ph	H	H	CH_3	CH_3	H	H	F	OH	H	H	NH_2
V-8-3	p-Cl-Ph	H	H	$CH(CH_3)_2$	CH_3	H	H	F	OH	H	H	NH_2
V-8-4	p-Cl-Ph	H	H	$CH_2CH(CH_3)_2$	CH_3	H	H	F	OH	H	H	NH_2
V-8-5	p-Cl-Ph	H	H	CH_2Ph	CH_3	H	H	F	OH	H	H	NH_2
V-8-6	p-Cl-Ph	H	H	CH_2-indol-3-yl	CH_3	H	H	F	OH	H	H	NH_2
V-8-7	p-Cl-Ph	H	H	$CH_2CH_2SCH_3$	CH_3	H	H	F	OH	H	H	NH_2
V-8-8	p-Cl-Ph	*	H	*	CH_3	H	H	F	OH	H	H	NH_2

*R^2 and R^{3b} joined together by $(CH_2)_3$ to form five-membered ring.

Table V-9.

№	R^1	R^2	R^{3a}	R^{3b}	R^4	R^5	R^6	X	Y	R^7	R^8	R^9
V-9-1	p-Br-Ph	H	H	H	CH_3	H	H	F	OH	H	H	NH_2
V-9-2	p-Br-Ph	H	H	CH_3	CH_3	H	H	F	OH	H	H	NH_2
V-9-3	p-Br-Ph	H	H	$CH(CH_3)_2$	CH_3	H	H	F	OH	H	H	NH_2
V-9-4	p-Br-Ph	H	H	$CH_2CH(CH_3)_2$	CH_3	H	H	F	OH	H	H	NH_2
V-9-6	p-Br-Ph	H	H	CH_2Ph	CH_3	H	H	F	OH	H	H	NH_2
V-9-7	p-Br-Ph	H	H	CH_2-indol-3-yl	CH_3	H	H	F	OH	H	H	NH_2
V-9-8	p-Br-Ph	H	H	$CH_2CH_2SCH_3$	CH_3	H	H	F	OH	H	H	NH_2
V-9-20	p-Br-Ph	*	H	*	CH_3	H	H	F	OH	H	H	NH_2

*R^2 and R^{3b} joined together by $(CH_2)_3$ to form five-membered ring.

Table V-10.

№	R^1	R^2	R^{3a}	R^{3b}	R^4	R^5	R^6	X	Y	R^7	R^8	R^9
V-10-1	p-I-Ph	H	H	H	CH_3	H	H	F	OH	H	H	NH_2
V-10-2	p-I-Ph	H	H	CH_3	CH_3	H	H	F	OH	H	H	NH_2
V-10-3	p-I-Ph	H	H	$CH(CH_3)_2$	CH_3	H	H	F	OH	H	H	NH_2
V-10-4	p-I-Ph	H	H	$CH_2CH(CH_3)_2$	CH_3	H	H	F	OH	H	H	NH_2
V-10-5	p-I-Ph	H	H	CH_2Ph	CH_3	H	H	F	OH	H	H	NH_2
V-10-6	p-I-Ph	H	H	CH_2-indol-3-yl	CH_3	H	H	F	OH	H	H	NH_2
V-10-7	p-I-Ph	H	H	$CH_2CH_2SCH_3$	CH_3	H	H	F	OH	H	H	NH_2
V-10-8	p-I-Ph	*	H	*	CH_3	H	H	F	OH	H	H	NH_2

*R^2 and R^{3b} joined together by $(CH_2)_3$ to form five-membered ring.

Gilead Exhibit 2023
PGR2023-00046 - Page 00163

Table V-11.

№	R^1	R^2	R^{3a}	R^{3b}	R^4	R^5	R^6	X	Y	R^7	R^8	R^9
V-11-1	CH_3	H	H	H	Et	H	H	F	OH	H	H	NH_2
V-11-2	CH_3	H	H	CH_3	Et	H	H	F	OH	H	H	NH_2
V-11-3	CH_3	H	H	$CH(CH_3)_2$	Et	H	H	F	OH	H	H	NH_2
V-11-4	CH_3	H	H	$CH_2CH(CH_3)_2$	Et	H	H	F	OH	H	H	NH_2
V-11-5	CH_3	H	H	CH_2Ph	Et	H	H	F	OH	H	H	NH_2
V-11-6	CH_3	H	H	CH_2-indol-3-yl	Et	H	H	F	OH	H	H	NH_2
V-11-7	CH_3	H	H	$CH_2CH_2SCH_3$	Et	H	H	F	OH	H	H	NH_2
V-11-8	CH_3	*	H	*	Et	H	H	F	OH	H	H	NH_2

*R^2 and R^{3b} joined together by $(CH_2)_3$ to form five-membered ring.

Table V-12.

№	R^1	R^2	R^{3a}	R^{3b}	R^4	R^5	R^6	X	Y	R^7	R^8	R^9
V-12-1	Et	H	H	H	Et	H	H	F	OH	H	H	NH_2
V-12-2	Et	H	H	CH_3	Et	H	H	F	OH	H	H	NH_2
V-12-3	Et	H	H	$CH(CH_3)_2$	Et	H	H	F	OH	H	H	NH_2
V-12-4	Et	H	H	$CH_2CH(CH_3)_2$	Et	H	H	F	OH	H	H	NH_2
V-12-5	Et	H	H	CH_2Ph	Et	H	H	F	OH	H	H	NH_2
V-12-6	Et	H	H	CH_2-indol-3-yl	Et	H	H	F	OH	H	H	NH_2
V-12-7	Et	H	H	$CH_2CH_2SCH_3$	Et	H	H	F	OH	H	H	NH_2
V-12-8	Et	*	H	*	Et	H	H	F	OH	H	H	NH_2

*R^2 and R^{3b} joined together by $(CH_2)_3$ to form five-membered ring.

Table V-13.

№	R^1	R^2	R^{3a}	R^{3b}	R^4	R^5	R^6	X	Y	R^7	R^8	R^9
V-13-1	^iPr	H	H	H	Et	H	H	F	OH	H	H	NH_2
V-13-2	^iPr	H	H	CH_3	Et	H	H	F	OH	H	H	NH_2
V-13-3	^iPr	H	H	$CH(CH_3)_2$	Et	H	H	F	OH	H	H	NH_2
V-13-4	^iPr	H	H	$CH_2CH(CH_3)_2$	Et	H	H	F	OH	H	H	NH_2
V-13-5	^iPr	H	H	CH_2Ph	Et	H	H	F	OH	H	H	NH_2
V-13-6	^iPr	H	H	CH_2-indol-3-yl	Et	H	H	F	OH	H	H	NH_2
V-13-7	^iPr	H	H	$CH_2CH_2SCH_3$	Et	H	H	F	OH	H	H	NH_2
V-13-8	^iPr	*	H	*	Et	H	H	F	OH	H	H	NH_2

*R^2 and R^{3b} joined together by $(CH_2)_3$ to form five-membered ring.

Gilead Exhibit 2023
PGR2023-00046 - Page 00164

Table V-14.

№	R^1	R^2	R^{3a}	R^{3b}	R^4	R^5	R^6	X	Y	R^7	R^8	R^9
V-14-1	^{t}Bu	H	H	H	Et	H	H	F	OH	H	H	NH_2
V-14-2	^{t}Bu	H	H	CH_3	Et	H	H	F	OH	H	H	NH_2
V-14-3	^{t}Bu	H	H	$CH(CH_3)_2$	Et	H	H	F	OH	H	H	NH_2
V-14-4	^{t}Bu	H	H	$CH_2CH(CH_3)_2$	Et	H	H	F	OH	H	H	NH_2
V-14-5	^{t}Bu	H	H	CH_2Ph	Et	H	H	F	OH	H	H	NH_2
V-14-6	^{t}Bu	H	H	CH_2-indol-3-yl	Et	H	H	F	OH	H	H	NH_2
V-14-7	^{t}Bu	H	H	$CH_2CH_2SCH_3$	Et	H	H	F	OH	H	H	NH_2
V-14-8	^{t}Bu	*	H	*	Et	H	H	F	OH	H	H	NH_2

*R^2 and R^{3b} joined together by $(CH_2)_3$ to form five-membered ring.

Table V-15.

№	R^1	R^2	R^{3a}	R^{3b}	R^4	R^5	R^6	X	Y	R^7	R^8	R^9
V-15-1	Ph	H	H	H	Et	H	H	F	OH	H	H	NH_2
V-15-2	Ph	H	H	CH_3	Et	H	H	F	OH	H	H	NH_2
V-15-3	Ph	H	H	$CH(CH_3)_2$	Et	H	H	F	OH	H	H	NH_2
V-15-4	Ph	H	H	$CH_2CH(CH_3)_2$	Et	H	H	F	OH	H	H	NH_2
V-15-5	Ph	H	H	CH_2Ph	Et	H	H	F	OH	H	H	NH_2
V-15-6	Ph	H	H	CH_2-indol-3-yl	Et	H	H	F	OH	H	H	NH_2
V-15-7	Ph	H	H	$CH_2CH_2SCH_3$	Et	H	H	F	OH	H	H	NH_2
V-15-8	Ph	*	H	*	Et	H	H	F	OH	H	H	NH_2

*R^2 and R^{3b} joined together by $(CH_2)_3$ to form five-membered ring.

Table V-16.

№	R^1	R^2	R^{3a}	R^{3b}	R^4	R^5	R^6	X	Y	R^7	R^8	R^9
V-16-1	p-Me-Ph	H	H	H	Et	H	H	F	OH	H	H	NH_2
V-16-2	p-Me-Ph	H	H	CH_3	Et	H	H	F	OH	H	H	NH_2
V-16-3	p-Me-Ph	H	H	$CH(CH_3)_2$	Et	H	H	F	OH	H	H	NH_2
V-16-4	p-Me-Ph	H	H	$CH_2CH(CH_3)_2$	Et	H	H	F	OH	H	H	NH_2
V-16-5	p-Me-Ph	H	H	CH_2Ph	Et	H	H	F	OH	H	H	NH_2
V-16-6	p-Me-Ph	H	H	CH_2-indol-3-yl	Et	H	H	F	OH	H	H	NH_2
V-16-7	p-Me-Ph	H	H	$CH_2CH_2SCH_3$	Et	H	H	F	OH	H	H	NH_2
V-16-8	p-Me-Ph	*	H	*	Et	H	H	F	OH	H	H	NH_2

Gilead Exhibit 2023
PGR2023-00046 - Page 00165

*R^2 and R^{3b} joined together by $(CH_2)_3$ to form five-membered ring.

Table V-17.

№	R^1	R^2	R^{3a}	R^{3b}	R^4	R^5	R^6	X	Y	R^7	R^8	R^9
V-17-1	p-F-Ph	H	H	H	Et	H	H	F	OH	H	H	NH_2
V-17-2	p-F-Ph	H	H	CH_3	Et	H	H	F	OH	H	H	NH_2
V-17-3	p-F-Ph	H	H	$CH(CH_3)_2$	Et	H	H	F	OH	H	H	NH_2
V-17-4	p-F-Ph	H	H	$CH_2CH(CH_3)_2$	Et	H	H	F	OH	H	H	NH_2
V-17-5	p-F-Ph	H	H	CH_2Ph	Et	H	H	F	OH	H	H	NH_2
V-17-6	p-F-Ph	H	H	CH_2-indol-3-yl	Et	H	H	F	OH	H	H	NH_2
V-17-7	p-F-Ph	H	H	$CH_2CH_2SCH_3$	Et	H	H	F	OH	H	H	NH_2
V-17-8	p-F-Ph	*	H	*	Et	H	H	F	OH	H	H	NH_2

*R^2 and R^{3b} joined together by $(CH_2)_3$ to form five-membered ring.

Table V-18.

№	R^1	R^2	R^{3a}	R^{3b}	R^4	R^5	R^6	X	Y	R^7	R^8	R^9
V-18-1	p-Cl-Ph	H	H	H	Et	H	H	F	OH	H	H	NH_2
V-18-2	p-Cl-Ph	H	H	CH_3	Et	H	H	F	OH	H	H	NH_2
V-18-3	p-Cl-Ph	H	H	$CH(CH_3)_2$	Et	H	H	F	OH	H	H	NH_2
V-18-4	p-Cl-Ph	H	H	$CH_2CH(CH_3)_2$	Et	H	H	F	OH	H	H	NH_2
V-18-5	p-Cl-Ph	H	H	CH_2Ph	Et	H	H	F	OH	H	H	NH_2
V-18-6	p-Cl-Ph	H	H	CH_2-indol-3-yl	Et	H	H	F	OH	H	H	NH_2
V-18-7	p-Cl-Ph	H	H	$CH_2CH_2SCH_3$	Et	H	H	F	OH	H	H	NH_2
V-18-8	p-Cl-Ph	*	H	*	Et	H	H	F	OH	H	H	NH_2

*R^2 and R^{3b} joined together by $(CH_2)_3$ to form five-membered ring.

Table V-19.

№	R^1	R^2	R^{3a}	R^{3b}	R^4	R^5	R^6	X	Y	R^7	R^8	R^9
V-19-1	p-Br-Ph	H	H	H	Et	H	H	F	OH	H	H	NH_2
V-19-2	p-Br-Ph	H	H	CH_3	Et	H	H	F	OH	H	H	NH_2
V-19-3	p-Br-Ph	H	H	$CH(CH_3)_2$	Et	H	H	F	OH	H	H	NH_2
V-19-4	p-Br-Ph	H	H	$CH_2CH(CH_3)_2$	Et	H	H	F	OH	H	H	NH_2
V-19-5	p-Br-Ph	H	H	CH_2Ph	Et	H	H	F	OH	H	H	NH_2
V-19-6	p-Br-Ph	H	H	CH_2-indol-3-yl	Et	H	H	F	OH	H	H	NH_2
V-19-7	p-Br-Ph	H	H	$CH_2CH_2SCH_3$	Et	H	H	F	OH	H	H	NH_2

Gilead Exhibit 2023
PGR2023-00046 - Page 00166

№	R^1	R^2	R^{3a}	R^{3b}	R^4	R^5	R^6	X	Y	R^7	R^8	R^9
V-19-8	p-Br-Ph	*	H	*	Et	H	H	F	OH	H	H	NH_2

*R^2 and R^{3b} joined together by $(CH_2)_3$ to form five-membered ring.

Table V-20.

№	R^1	R^2	R^{3a}	R^{3b}	R^4	R^5	R^6	X	Y	R^7	R^8	R^9
V-20-1	p-I-Ph	H	H	H	Et	H	H	F	OH	H	H	NH_2
V-20-2	p-I-Ph	H	H	CH_3	Et	H	H	F	OH	H	H	NH_2
V-20-3	p-I-Ph	H	H	$CH(CH_3)_2$	Et	H	H	F	OH	H	H	NH_2
V-20-4	p-I-Ph	H	H	$CH_2CH(CH_3)_2$	Et	H	H	F	OH	H	H	NH_2
V-20-5	p-I-Ph	H	H	CH_2Ph	Et	H	H	F	OH	H	H	NH_2
V-20-6	p-I-Ph	H	H	CH_2-indol-3-yl	Et	H	H	F	OH	H	H	NH_2
V-20-7	p-I-Ph	H	H	$CH_2CH_2SCH_3$	Et	H	H	F	OH	H	H	NH_2
V-20-8	p-I-Ph	*	H	*	Et	H	H	F	OH	H	H	NH_2

*R^2 and R^{3b} joined together by $(CH_2)_3$ to form five-membered ring.

Table V-21.

№	R^1	R^2	R^{3a}	R^{3b}	R^4	R^5	R^6	X	Y	R^7	R^8	R^9
V-21-1	CH_3	H	H	H	^{i}Pr	H	H	F	OH	H	H	NH_2
V-21-2	CH_3	H	H	CH_3	^{i}Pr	H	H	F	OH	H	H	NH_2
V-21-3	CH_3	H	H	$CH(CH_3)_2$	^{i}Pr	H	H	F	OH	H	H	NH_2
V-21-4	CH_3	H	H	$CH_2CH(CH_3)_2$	^{i}Pr	H	H	F	OH	H	H	NH_2
V-21-5	CH_3	H	H	CH_2Ph	^{i}Pr	H	H	F	OH	H	H	NH_2
V-21-6	CH_3	H	H	CH_2-indol-3-yl	^{i}Pr	H	H	F	OH	H	H	NH_2
V-21-7	CH_3	H	H	$CH_2CH_2SCH_3$	^{i}Pr	H	H	F	OH	H	H	NH_2
V-21-8	CH_3	*	H	*	^{i}Pr	H	H	F	OH	H	H	NH_2

*R^2 and R^{3b} joined together by $(CH_2)_3$ to form five-membered ring.

Table V-22.

№	R^1	R^2	R^{3a}	R^{3b}	R^4	R^5	R^6	X	Y	R^7	R^8	R^9
V-22-1	Et	H	H	H	^{i}Pr	H	H	F	OH	H	H	NH_2
V-22-2	Et	H	H	CH_3	^{i}Pr	H	H	F	OH	H	H	NH_2
V-22-3	Et	H	H	$CH(CH_3)_2$	^{i}Pr	H	H	F	OH	H	H	NH_2
V-22-4	Et	H	H	$CH_2CH(CH_3)_2$	^{i}Pr	H	H	F	OH	H	H	NH_2
V-22-5	Et	H	H	CH_2Ph	^{i}Pr	H	H	F	OH	H	H	NH_2

Gilead Exhibit 2023
PGR2023-00046 - Page 00167

№	R^1	R^2	R^{3a}	R^{3b}	R^4	R^5	R^6	X	Y	R^7	R^8	R^9
V-22-6	Et	H	H	CH_2-indol-3-yl	^{i}Pr	H	H	F	OH	H	H	NH_2
V-22-7	Et	H	H	$CH_2CH_2SCH_3$	^{i}Pr	H	H	F	OH	H	H	NH_2
V-22-8	Et	*	H	*	^{i}Pr	H	H	F	OH	H	H	NH_2

*R^2 and R^{3b} joined together by $(CH_2)_3$ to form five-membered ring.

Table V-23.

№	R^1	R^2	R^{3a}	R^{3b}	R^4	R^5	R^6	X	Y	R^7	R^8	R^9
V-23-1	^{i}Pr	H	H	H	^{i}Pr	H	H	F	OH	H	H	NH_2
V-23-2	^{i}Pr	H	H	CH_3	^{i}Pr	H	H	F	OH	H	H	NH_2
V-23-3	^{i}Pr	H	H	$CH(CH_3)_2$	^{i}Pr	H	H	F	OH	H	H	NH_2
V-23-4	^{i}Pr	H	H	$CH_2CH(CH_3)_2$	^{i}Pr	H	H	F	OH	H	H	NH_2
V-23-5	^{i}Pr	H	H	CH_2Ph	^{i}Pr	H	H	F	OH	H	H	NH_2
V-23-6	^{i}Pr	H	H	CH_2-indol-3-yl	^{i}Pr	H	H	F	OH	H	H	NH_2
V-23-7	^{i}Pr	H	H	$CH_2CH_2SCH_3$	^{i}Pr	H	H	F	OH	H	H	NH_2
V-23-8	^{i}Pr	*	H	*	^{i}Pr	H	H	F	OH	H	H	NH_2

*R^2 and R^{3b} joined together by $(CH_2)_3$ to form five-membered ring.

Table V-24.

№	R^1	R^2	R^{3a}	R^{3b}	R^4	R^5	R^6	X	Y	R^7	R^8	R^9
V-24-1	^{t}Bu	H	H	H	^{i}Pr	H	H	F	OH	H	H	NH_2
V-24-2	^{t}Bu	H	H	CH_3	^{i}Pr	H	H	F	OH	H	H	NH_2
V-24-3	^{t}Bu	H	H	$CH(CH_3)_2$	^{i}Pr	H	H	F	OH	H	H	NH_2
V-24-4	^{t}Bu	H	H	$CH_2CH(CH_3)_2$	^{i}Pr	H	H	F	OH	H	H	NH_2
V-24-5	^{t}Bu	H	H	CH_2Ph	^{i}Pr	H	H	F	OH	H	H	NH_2
V-24-6	^{t}Bu	H	H	CH_2-indol-3-yl	^{i}Pr	H	H	F	OH	H	H	NH_2
V-24-7	^{t}Bu	H	H	$CH_2CH_2SCH_3$	^{i}Pr	H	H	F	OH	H	H	NH_2
V-24-8	^{t}Bu	*	H	*	^{i}Pr	H	H	F	OH	H	H	NH_2

*R^2 and R^{3b} joined together by $(CH_2)_3$ to form five-membered ring.

Table V-25.

№	R^1	R^2	R^{3a}	R^{3b}	R^4	R^5	R^6	X	Y	R^7	R^8	R^9
V-25-1	Ph	H	H	H	^{i}Pr	H	H	F	OH	H	H	NH_2
V-25-2	Ph	H	H	CH_3	^{i}Pr	H	H	F	OH	H	H	NH_2
V-25-3	Ph	H	H	$CH(CH_3)_2$	^{i}Pr	H	H	F	OH	H	H	NH_2

Gilead Exhibit 2023
PGR2023-00046 - Page 00168

№	R^1	R^2	R^{3a}	R^{3b}	R^4	R^5	R^6	X	Y	R^7	R^8	R^9
V-25-4	Ph	H	H	$CH_2CH(CH_3)_2$	^{i}Pr	H	H	F	OH	H	H	NH_2
V-25-5	Ph	H	H	CH_2Ph	^{i}Pr	H	H	F	OH	H	H	NH_2
V-25-6	Ph	H	H	CH_2-indol-3-yl	^{i}Pr	H	H	F	OH	H	H	NH_2
V-25-7	Ph	H	H	$CH_2CH_2SCH_3$	^{i}Pr	H	H	F	OH	H	H	NH_2
V-25-8	Ph	*	H	*	^{i}Pr	H	H	F	OH	H	H	NH_2

*R^2 and R^{3b} joined together by $(CH_2)_3$ to form five-membered ring.

Table V-26.

№	R^1	R^2	R^{3a}	R^{3b}	R^4	R^5	R^6	X	Y	R^7	R^8	R^9
V-26-1	p-Me-Ph	H	H	H	^{i}Pr	H	H	F	OH	H	H	NH_2
V-26-2	p-Me-Ph	H	H	CH_3	^{i}Pr	H	H	F	OH	H	H	NH_2
V-26-3	p-Me-Ph	H	H	$CH(CH_3)_2$	^{i}Pr	H	H	F	OH	H	H	NH_2
V-26-4	p-Me-Ph	H	H	$CH_2CH(CH_3)_2$	^{i}Pr	H	H	F	OH	H	H	NH_2
V-26-5	p-Me-Ph	H	H	CH_2Ph	^{i}Pr	H	H	F	OH	H	H	NH_2
V-26-6	p-Me-Ph	H	H	CH_2-indol-3-yl	^{i}Pr	H	H	F	OH	H	H	NH_2
V-26-7	p-Me-Ph	H	H	$CH_2CH_2SCH_3$	^{i}Pr	H	H	F	OH	H	H	NH_2
V-26-8	p-Me-Ph	*	H	*	^{i}Pr	H	H	F	OH	H	H	NH_2

*R^2 and R^{3b} joined together by $(CH_2)_3$ to form five-membered ring.

Table V-27.

№	R^1	R^2	R^{3a}	R^{3b}	R^4	R^5	R^6	X	Y	R^7	R^8	R^9
V-27-1	p-F-Ph	H	H	H	^{i}Pr	H	H	F	OH	H	H	NH_2
V-27-2	p-F-Ph	H	H	CH_3	^{i}Pr	H	H	F	OH	H	H	NH_2
V-27-3	p-F-Ph	H	H	$CH(CH_3)_2$	^{i}Pr	H	H	F	OH	H	H	NH_2
V-27-4	p-F-Ph	H	H	$CH_2CH(CH_3)_2$	^{i}Pr	H	H	F	OH	H	H	NH_2
V-27-5	p-F-Ph	H	H	CH_2Ph	^{i}Pr	H	H	F	OH	H	H	NH_2
V-27-6	p-F-Ph	H	H	CH_2-indol-3-yl	^{i}Pr	H	H	F	OH	H	H	NH_2
V-27-7	p-F-Ph	H	H	$CH_2CH_2SCH_3$	^{i}Pr	H	H	F	OH	H	H	NH_2
V-27-8	p-F-Ph	*	H	*	^{i}Pr	H	H	F	OH	H	H	NH_2

*R^2 and R^{3b} joined together by $(CH_2)_3$ to form five-membered ring.

Table V-28.

№	R^1	R^2	R^{3a}	R^{3b}	R^4	R^5	R^6	X	Y	R^7	R^8	R^9
V-28-1	p-Cl-Ph	H	H	H	^{i}Pr	H	H	F	OH	H	H	NH_2

Gilead Exhibit 2023
PGR2023-00046 - Page 00169

№	R^1	R^2	R^{3a}	R^{3b}	R^4	R^5	R^6	X	Y	R^7	R^8	R^9
V-28-2	p-Cl-Ph	H	H	CH_3	^{i}Pr	H	H	F	OH	H	H	NH_2
V-28-3	p-Cl-Ph	H	H	$CH(CH_3)_2$	^{i}Pr	H	H	F	OH	H	H	NH_2
V-28-4	p-Cl-Ph	H	H	$CH_2CH(CH_3)_2$	^{i}Pr	H	H	F	OH	H	H	NH_2
V-28-5	p-Cl-Ph	H	H	CH_2Ph	^{i}Pr	H	H	F	OH	H	H	NH_2
V-28-6	p-Cl-Ph	H	H	CH_2-indol-3-yl	^{i}Pr	H	H	F	OH	H	H	NH_2
V-28-7	p-Cl-Ph	H	H	$CH_2CH_2SCH_3$	^{i}Pr	H	H	F	OH	H	H	NH_2
V-28-8	p-Cl-Ph	*	H	*	^{i}Pr	H	H	F	OH	H	H	NH_2

*R^2 and R^{3b} joined together by $(CH_2)_3$ to form five-membered ring.

Table V-29.

№	R^1	R^2	R^{3a}	R^{3b}	R^4	R^5	R^6	X	Y	R^7	R^8	R^9
V-29-1	p-Br-Ph	H	H	H	^{i}Pr	H	H	F	OH	H	H	NH_2
V-29-2	p-Br-Ph	H	H	CH_3	^{i}Pr	H	H	F	OH	H	H	NH_2
V-29-3	p-Br-Ph	H	H	$CH(CH_3)_2$	^{i}Pr	H	H	F	OH	H	H	NH_2
V-29-4	p-Br-Ph	H	H	$CH_2CH(CH_3)_2$	^{i}Pr	H	H	F	OH	H	H	NH_2
V-29-5	p-Br-Ph	H	H	CH_2Ph	^{i}Pr	H	H	F	OH	H	H	NH_2
V-29-6	p-Br-Ph	H	H	CH_2-indol-3-yl	^{i}Pr	H	H	F	OH	H	H	NH_2
V-29-7	p-Br-Ph	H	H	$CH_2CH_2SCH_3$	^{i}Pr	H	H	F	OH	H	H	NH_2
V-29-8	p-Br-Ph	*	H	*	^{i}Pr	H	H	F	OH	H	H	NH_2

*R^2 and R^{3b} joined together by $(CH_2)_3$ to form five-membered ring.

Table V-30.

№	R^1	R^2	R^{3a}	R^{3b}	R^4	R^5	R^6	X	Y	R^7	R^8	R^9
V-30-1	p-I-Ph	H	H	H	^{i}Pr	H	H	F	OH	H	H	NH_2
V-30-2	p-I-Ph	H	H	CH_3	^{i}Pr	H	H	F	OH	H	H	NH_2
V-30-3	p-I-Ph	H	H	$CH(CH_3)_2$	^{i}Pr	H	H	F	OH	H	H	NH_2
V-30-4	p-I-Ph	H	H	$CH_2CH(CH_3)_2$	^{i}Pr	H	H	F	OH	H	H	NH_2
V-30-5	p-I-Ph	H	H	CH_2Ph	^{i}Pr	H	H	F	OH	H	H	NH_2
V-30-6	p-I-Ph	H	H	CH_2-indol-3-yl	^{i}Pr	H	H	F	OH	H	H	NH_2
V-30-7	p-I-Ph	H	H	$CH_2CH_2SCH_3$	^{i}Pr	H	H	F	OH	H	H	NH_2
V-30-8	p-I-Ph	*	H	*	^{i}Pr	H	H	F	OH	H	H	NH_2

*R^2 and R^{3b} joined together by $(CH_2)_3$ to form five-membered ring.

Table V-31.

Gilead Exhibit 2023
PGR2023-00046 - Page 00170

№	R^1	R^2	R^{3a}	R^{3b}	R^4	R^5	R^6	X	Y	R^7	R^8	R^9
V-31-1	CH_3	H	H	H	^{n}Bu	H	H	F	OH	H	H	NH_2
V-31-2	CH_3	H	H	CH_3	^{n}Bu	H	H	F	OH	H	H	NH_2
V-31-3	CH_3	H	H	$CH(CH_3)_2$	^{n}Bu	H	H	F	OH	H	H	NH_2
V-31-4	CH_3	H	H	$CH_2CH(CH_3)_2$	^{n}Bu	H	H	F	OH	H	H	NH_2
V-31-5	CH_3	H	H	CH_2Ph	^{n}Bu	H	H	F	OH	H	H	NH_2
V-31-6	CH_3	H	H	CH_2-indol-3-yl	^{n}Bu	H	H	F	OH	H	H	NH_2
V-31-7	CH_3	H	H	$CH_2CH_2SCH_3$	^{n}Bu	H	H	F	OH	H	H	NH_2
V-31-8	CH_3	*	H	*	^{n}Bu	H	H	F	OH	H	H	NH_2

*R^2 and R^{3b} joined together by $(CH_2)_3$ to form five-membered ring.

Table V-32.

№	R^1	R^2	R^{3a}	R^{3b}	R^4	R^5	R^6	X	Y	R^7	R^8	R^9
V-32-1	Et	H	H	H	^{n}Bu	H	H	F	OH	H	H	NH_2
V-32-2	Et	H	H	CH_3	^{n}Bu	H	H	F	OH	H	H	NH_2
V-32-3	Et	H	H	$CH(CH_3)_2$	^{n}Bu	H	H	F	OH	H	H	NH_2
V-32-4	Et	H	H	$CH_2CH(CH_3)_2$	^{n}Bu	H	H	F	OH	H	H	NH_2
V-32-5	Et	H	H	CH_2Ph	^{n}Bu	H	H	F	OH	H	H	NH_2
V-32-6	Et	H	H	CH_2-indol-3-yl	^{n}Bu	H	H	F	OH	H	H	NH_2
V-32-7	Et	H	H	$CH_2CH_2SCH_3$	^{n}Bu	H	H	F	OH	H	H	NH_2
V-32-8	Et	*	H	*	^{n}Bu	H	H	F	OH	H	H	NH_2

*R^2 and R^{3b} joined together by $(CH_2)_3$ to form five-membered ring.

Table V-33.

№	R^1	R^2	R^{3a}	R^{3b}	R^4	R^5	R^6	X	Y	R^7	R^8	R^9
V-33-1	^{i}Pr	H	H	H	^{n}Bu	H	H	F	OH	H	H	NH_2
V-33-2	^{i}Pr	H	H	CH_3	^{n}Bu	H	H	F	OH	H	H	NH_2
V-33-3	^{i}Pr	H	H	$CH(CH_3)_2$	^{n}Bu	H	H	F	OH	H	H	NH_2
V-33-4	^{i}Pr	H	H	$CH_2CH(CH_3)_2$	^{n}Bu	H	H	F	OH	H	H	NH_2
V-33-5	^{i}Pr	H	H	CH_2Ph	^{n}Bu	H	H	F	OH	H	H	NH_2
V-33-6	^{i}Pr	H	H	CH_2-indol-3-yl	^{n}Bu	H	H	F	OH	H	H	NH_2
V-33-7	^{i}Pr	H	H	$CH_2CH_2SCH_3$	^{n}Bu	H	H	F	OH	H	H	NH_2
V-33-8	^{i}Pr	*	H	*	^{n}Bu	H	H	F	OH	H	H	NH_2

*R^2 and R^{3b} joined together by $(CH_2)_3$ to form five-membered ring.

Gilead Exhibit 2023
PGR2023-00046 - Page 00171

Table V-34.

№	R^1	R^2	R^{3a}	R^{3b}	R^4	R^5	R^6	X	Y	R^7	R^8	R^9
V-34-1	^{t}Bu	H	H	H	^{n}Bu	H	H	F	OH	H	H	NH_2
V-34-2	^{t}Bu	H	H	CH_3	^{n}Bu	H	H	F	OH	H	H	NH_2
V-34-3	^{t}Bu	H	H	$CH(CH_3)_2$	^{n}Bu	H	H	F	OH	H	H	NH_2
V-34-4	^{t}Bu	H	H	$CH_2CH(CH_3)_2$	^{n}Bu	H	H	F	OH	H	H	NH_2
V-34-5	^{t}Bu	H	H	CH_2Ph	^{n}Bu	H	H	F	OH	H	H	NH_2
V-34-6	^{t}Bu	H	H	CH_2-indol-3-yl	^{n}Bu	H	H	F	OH	H	H	NH_2
V-34-7	^{t}Bu	H	H	$CH_2CH_2SCH_3$	^{n}Bu	H	H	F	OH	H	H	NH_2
V-34-8	^{t}Bu	*	H	*	^{n}Bu	H	H	F	OH	H	H	NH_2

*R^2 and R^{3b} joined together by $(CH_2)_3$ to form five-membered ring.

Table V-35.

№	R^1	R^2	R^{3a}	R^{3b}	R^4	R^5	R^6	X	Y	R^7	R^8	R^9
V-35-1	Ph	H	H	H	^{n}Bu	H	H	F	OH	H	H	NH_2
V-35-2	Ph	H	H	CH_3	^{n}Bu	H	H	F	OH	H	H	NH_2
V-35-3	Ph	H	H	$CH(CH_3)_2$	^{n}Bu	H	H	F	OH	H	H	NH_2
V-35-4	Ph	H	H	$CH_2CH(CH_3)_2$	^{n}Bu	H	H	F	OH	H	H	NH_2
V-35-5	Ph	H	H	CH_2Ph	^{n}Bu	H	H	F	OH	H	H	NH_2
V-35-6	Ph	H	H	CH_2-indol-3-yl	^{n}Bu	H	H	F	OH	H	H	NH_2
V-35-7	Ph	H	H	$CH_2CH_2SCH_3$	^{n}Bu	H	H	F	OH	H	H	NH_2
V-35-8	Ph	*	H	*	^{n}Bu	H	H	F	OH	H	H	NH_2

*R^2 and R^{3b} joined together by $(CH_2)_3$ to form five-membered ring.

Table V-36.

№	R^1	R^2	R^{3a}	R^{3b}	R^4	R^5	R^6	X	Y	R^7	R^8	R^9
V-36-1	p-Me-Ph	H	H	H	^{n}Bu	H	H	F	OH	H	H	NH_2
V-36-2	p-Me-Ph	H	H	CH_3	^{n}Bu	H	H	F	OH	H	H	NH_2
V-36-3	p-Me-Ph	H	H	$CH(CH_3)_2$	^{n}Bu	H	H	F	OH	H	H	NH_2
V-36-4	p-Me-Ph	H	H	$CH_2CH(CH_3)_2$	^{n}Bu	H	H	F	OH	H	H	NH_2
V-36-5	p-Me-Ph	H	H	CH_2Ph	^{n}Bu	H	H	F	OH	H	H	NH_2
V-36-6	p-Me-Ph	H	H	CH_2-indol-3-yl	^{n}Bu	H	H	F	OH	H	H	NH_2
V-36-7	p-Me-Ph	H	H	$CH_2CH_2SCH_3$	^{n}Bu	H	H	F	OH	H	H	NH_2
V-36-8	p-Me-Ph	*	H	*	^{n}Bu	H	H	F	OH	H	H	NH_2

*R^2 and R^{3b} joined together by $(CH_2)_3$ to form five-membered ring.

Gilead Exhibit 2023
PGR2023-00046 - Page 00172

Table V-37.

№	R^1	R^2	R^{3a}	R^{3b}	R^4	R^5	R^6	X	Y	R^7	R^8	R^9
V-37-1	p-F-Ph	H	H	H	^{n}Bu	H	H	F	OH	H	H	NH_2
V-37-2	p-F-Ph	H	H	CH_3	^{n}Bu	H	H	F	OH	H	H	NH_2
V-37-3	p-F-Ph	H	H	$CH(CH_3)_2$	^{n}Bu	H	H	F	OH	H	H	NH_2
V-37-4	p-F-Ph	H	H	$CH_2CH(CH_3)_2$	^{n}Bu	H	H	F	OH	H	H	NH_2
V-37-5	p-F-Ph	H	H	CH_2Ph	^{n}Bu	H	H	F	OH	H	H	NH_2
V-37-6	p-F-Ph	H	H	CH_2-indol-3-yl	^{n}Bu	H	H	F	OH	H	H	NH_2
V-37-7	p-F-Ph	H	H	$CH_2CH_2SCH_3$	^{n}Bu	H	H	F	OH	H	H	NH_2
V-37-8	p-F-Ph	*	H	*	^{n}Bu	H	H	F	OH	H	H	NH_2

*R^2 and R^{3b} joined together by $(CH_2)_3$ to form five-membered ring.

Table V-38.

№	R^1	R^2	R^{3a}	R^{3b}	R^4	R^5	R^6	X	Y	R^7	R^8	R^9
V-38-1	p-Cl-Ph	H	H	H	^{n}Bu	H	H	F	OH	H	H	NH_2
V-38-2	p-Cl-Ph	H	H	CH_3	^{n}Bu	H	H	F	OH	H	H	NH_2
V-38-3	p-Cl-Ph	H	H	$CH(CH_3)_2$	^{n}Bu	H	H	F	OH	H	H	NH_2
V-38-4	p-Cl-Ph	H	H	$CH_2CH(CH_3)_2$	^{n}Bu	H	H	F	OH	H	H	NH_2
V-38-5	p-Cl-Ph	H	H	CH_2Ph	^{n}Bu	H	H	F	OH	H	H	NH_2
V-38-6	p-Cl-Ph	H	H	CH_2-indol-3-yl	^{n}Bu	H	H	F	OH	H	H	NH_2
V-38-7	p-Cl-Ph	H	H	$CH_2CH_2SCH_3$	^{n}Bu	H	H	F	OH	H	H	NH_2
V-38-8	p-Cl-Ph	*	H	*	^{n}Bu	H	H	F	OH	H	H	NH_2

*R^2 and R^{3b} joined together by $(CH_2)_3$ to form five-membered ring.

Table V-39.

№	R^1	R^2	R^{3a}	R^{3b}	R^4	R^5	R^6	X	Y	R^7	R^8	R^9
V-39-1	p-Br-Ph	H	H	H	^{n}Bu	H	H	F	OH	H	H	NH_2
V-39-2	p-Br-Ph	H	H	CH_3	^{n}Bu	H	H	F	OH	H	H	NH_2
V-39-3	p-Br-Ph	H	H	$CH(CH_3)_2$	^{n}Bu	H	H	F	OH	H	H	NH_2
V-39-4	p-Br-Ph	H	H	$CH_2CH(CH_3)_2$	^{n}Bu	H	H	F	OH	H	H	NH_2
V-39-5	p-Br-Ph	H	H	CH_2Ph	^{n}Bu	H	H	F	OH	H	H	NH_2
V-39-6	p-Br-Ph	H	H	CH_2-indol-3-yl	^{n}Bu	H	H	F	OH	H	H	NH_2
V-39-7	p-Br-Ph	H	H	$CH_2CH_2SCH_3$	^{n}Bu	H	H	F	OH	H	H	NH_2
V-39-8	p-Br-Ph	*	H	*	^{n}Bu	H	H	F	OH	H	H	NH_2

*R^2 and R^{3b} joined together by $(CH_2)_3$ to form five-membered ring.

Gilead Exhibit 2023
PGR2023-00046 - Page 00173

Table V-40.

№	R^1	R^2	R^{3a}	R^{3b}	R^4	R^5	R^6	X	Y	R^7	R^8	R^9
V-40-1	p-I-Ph	H	H	H	^{n}Bu	H	H	F	OH	H	H	NH_2
V-40-2	p-I-Ph	H	H	CH_3	^{n}Bu	H	H	F	OH	H	H	NH_2
V-40-3	p-I-Ph	H	H	$CH(CH_3)_2$	^{n}Bu	H	H	F	OH	H	H	NH_2
V-40-4	p-I-Ph	H	H	$CH_2CH(CH_3)_2$	^{n}Bu	H	H	F	OH	H	H	NH_2
V-40-5	p-I-Ph	H	H	CH_2Ph	^{n}Bu	H	H	F	OH	H	H	NH_2
V-40-6	p-I-Ph	H	H	CH_2-indol-3-yl	^{n}Bu	H	H	F	OH	H	H	NH_2
V-40-7	p-I-Ph	H	H	$CH_2CH_2SCH_3$	^{n}Bu	H	H	F	OH	H	H	NH_2
V-40-8	p-I-Ph	*	H	*	^{n}Bu	H	H	F	OH	H	H	NH_2

*R^2 and R^{3b} joined together by $(CH_2)_3$ to form five-membered ring.

Table V-41.

№	R^1	R^2	R^{3a}	R^{3b}	R^4	R^5	R^6	X	Y	R^7	R^8	R^9
V-41-1	CH_3	H	H	H	Bz	H	H	F	OH	H	H	NH_2
V-41-2	CH_3	H	H	CH_3	Bz	H	H	F	OH	H	H	NH_2
V-41-3	CH_3	H	H	$CH(CH_3)_2$	Bz	H	H	F	OH	H	H	NH_2
V-41-4	CH_3	H	H	$CH_2CH(CH_3)_2$	Bz	H	H	F	OH	H	H	NH_2
V-41-5	CH_3	H	H	CH_2Ph	Bz	H	H	F	OH	H	H	NH_2
V-41-6	CH_3	H	H	CH_2-indol-3-yl	Bz	H	H	F	OH	H	H	NH_2
V-41-7	CH_3	H	H	$CH_2CH_2SCH_3$	Bz	H	H	F	OH	H	H	NH_2
V-41-8	CH_3	*	H	*	Bz	H	H	F	OH	H	H	NH_2

*R^2 and R^{3b} joined together by $(CH_2)_3$ to form five-membered ring.

Table V-42.

№	R^1	R^2	R^{3a}	R^{3b}	R^4	R^5	R^6	X	Y	R^7	R^8	R^9
V-42-1	Et	H	H	H	Bz	H	H	F	OH	H	H	NH_2
V-42-2	Et	H	H	CH_3	Bz	H	H	F	OH	H	H	NH_2
V-42-3	Et	H	H	$CH(CH_3)_2$	Bz	H	H	F	OH	H	H	NH_2
V-42-4	Et	H	H	$CH_2CH(CH_3)_2$	Bz	H	H	F	OH	H	H	NH_2
V-42-5	Et	H	H	CH_2Ph	Bz	H	H	F	OH	H	H	NH_2
V-42-6	Et	H	H	CH_2-indol-3-yl	Bz	H	H	F	OH	H	H	NH_2
V-42-7	Et	H	H	$CH_2CH_2SCH_3$	Bz	H	H	F	OH	H	H	NH_2
V-42-8	Et	*	H	*	Bz	H	H	F	OH	H	H	NH_2

*R^2 and R^{3b} joined together by $(CH_2)_3$ to form five-membered ring.

Gilead Exhibit 2023
PGR2023-00046 - Page 00174

Table V-43.

№	R^1	R^2	R^{3a}	R^{3b}	R^4	R^5	R^6	X	Y	R^7	R^8	R^9
V-43-1	^{i}Pr	H	H	H	Bz	H	H	F	OH	H	H	NH_2
V-43-2	^{i}Pr	H	H	CH_3	Bz	H	H	F	OH	H	H	NH_2
V-43-3	^{i}Pr	H	H	$CH(CH_3)_2$	Bz	H	H	F	OH	H	H	NH_2
V-43-4	^{i}Pr	H	H	$CH_2CH(CH_3)_2$	Bz	H	H	F	OH	H	H	NH_2
V-43-5	^{i}Pr	H	H	CH_2Ph	Bz	H	H	F	OH	H	H	NH_2
V-43-6	^{i}Pr	H	H	CH_2-indol-3-yl	Bz	H	H	F	OH	H	H	NH_2
V-43-7	^{i}Pr	H	H	$CH_2CH_2SCH_3$	Bz	H	H	F	OH	H	H	NH_2
V-43-8	^{i}Pr	*	H	*	Bz	H	H	F	OH	H	H	NH_2

*R^2 and R^{3b} joined together by $(CH_2)_3$ to form five-membered ring.

Table V-44.

№	R^1	R^2	R^{3a}	R^{3b}	R^4	R^5	R^6	X	Y	R^7	R^8	R^9
V-44-1	^{t}Bu	H	H	H	Bz	H	H	F	OH	H	H	NH_2
V-44-2	^{t}Bu	H	H	CH_3	Bz	H	H	F	OH	H	H	NH_2
V-44-3	^{t}Bu	H	H	$CH(CH_3)_2$	Bz	H	H	F	OH	H	H	NH_2
V-44-4	^{t}Bu	H	H	$CH_2CH(CH_3)_2$	Bz	H	H	F	OH	H	H	NH_2
V-44-5	^{t}Bu	H	H	CH_2Ph	Bz	H	H	F	OH	H	H	NH_2
V-44-6	^{t}Bu	H	H	CH_2-indol-3-yl	Bz	H	H	F	OH	H	H	NH_2
V-44-7	^{t}Bu	H	H	$CH_2CH_2SCH_3$	Bz	H	H	F	OH	H	H	NH_2
V-44-8	^{t}Bu	*	H	*	Bz	H	H	F	OH	H	H	NH_2

*R^2 and R^{3b} joined together by $(CH_2)_3$ to form five-membered ring.

Table V-45.

№	R^1	R^2	R^{3a}	R^{3b}	R^4	R^5	R^6	X	Y	R^7	R^8	R^9
V-45-1	Ph	H	H	H	Bz	H	H	F	OH	H	H	NH_2
V-45-2	Ph	H	H	CH_3	Bz	H	H	F	OH	H	H	NH_2
V-45-3	Ph	H	H	$CH(CH_3)_2$	Bz	H	H	F	OH	H	H	NH_2
V-45-4	Ph	H	H	$CH_2CH(CH_3)_2$	Bz	H	H	F	OH	H	H	NH_2
V-45-5	Ph	H	H	CH_2Ph	Bz	H	H	F	OH	H	H	NH_2
V-45-6	Ph	H	H	CH_2-indol-3-yl	Bz	H	H	F	OH	H	H	NH_2
V-45-7	Ph	H	H	$CH_2CH_2SCH_3$	Bz	H	H	F	OH	H	H	NH_2
V-45-8	Ph	*	H	*	Bz	H	H	F	OH	H	H	NH_2

Gilead Exhibit 2023
PGR2023-00046 - Page 00175

*R^2 and R^{3b} joined together by $(CH_2)_3$ to form five-membered ring.

Table V-46.

№	R^1	R^2	R^{3a}	R^{3b}	R^4	R^5	R^6	X	Y	R^7	R^8	R^9
V-46-1	p-Me-Ph	H	H	H	Bz	H	H	F	OH	H	H	NH_2
V-46-2	p-Me-Ph	H	H	CH_3	Bz	H	H	F	OH	H	H	NH_2
V-46-3	p-Me-Ph	H	H	$CH(CH_3)_2$	Bz	H	H	F	OH	H	H	NH_2
V-46-4	p-Me-Ph	H	H	$CH_2CH(CH_3)_2$	Bz	H	H	F	OH	H	H	NH_2
V-46-5	p-Me-Ph	H	H	CH_2Ph	Bz	H	H	F	OH	H	H	NH_2
V-46-6	p-Me-Ph	H	H	CH_2-indol-3-yl	Bz	H	H	F	OH	H	H	NH_2
V-46-7	p-Me-Ph	H	H	$CH_2CH_2SCH_3$	Bz	H	H	F	OH	H	H	NH_2
V-46-8	p-Me-Ph	*	H	*	Bz	H	H	F	OH	H	H	NH_2

*R^2 and R^{3b} joined together by $(CH_2)_3$ to form five-membered ring.

Table V-47.

№	R^1	R^2	R^{3a}	R^{3b}	R^4	R^5	R^6	X	Y	R^7	R^8	R^9
V-47-1	p-F-Ph	H	H	H	Bz	H	H	F	OH	H	H	NH_2
V-47-2	p-F-Ph	H	H	CH_3	Bz	H	H	F	OH	H	H	NH_2
V-47-3	p-F-Ph	H	H	$CH(CH_3)_2$	Bz	H	H	F	OH	H	H	NH_2
V-47-4	p-F-Ph	H	H	$CH_2CH(CH_3)_2$	Bz	H	H	F	OH	H	H	NH_2
V-47-5	p-F-Ph	H	H	CH_2Ph	Bz	H	H	F	OH	H	H	NH_2
V-47-6	p-F-Ph	H	H	CH_2-indol-3-yl	Bz	H	H	F	OH	H	H	NH_2
V-47-7	p-F-Ph	H	H	$CH_2CH_2SCH_3$	Bz	H	H	F	OH	H	H	NH_2
V-47-8	p-F-Ph	*	H	*	Bz	H	H	F	OH	H	H	NH_2

*R^2 and R^{3b} joined together by $(CH_2)_3$ to form five-membered ring.

Table V-48.

№	R^1	R^2	R^{3a}	R^{3b}	R^4	R^5	R^6	X	Y	R^7	R^8	R^9
V-48-1	p-Cl-Ph	H	H	H	Bz	H	H	F	OH	H	H	NH_2
V-48-2	p-Cl-Ph	H	H	CH_3	Bz	H	H	F	OH	H	H	NH_2
V-48-3	p-Cl-Ph	H	H	$CH(CH_3)_2$	Bz	H	H	F	OH	H	H	NH_2
V-48-4	p-Cl-Ph	H	H	$CH_2CH(CH_3)_2$	Bz	H	H	F	OH	H	H	NH_2
V-48-5	p-Cl-Ph	H	H	CH_2Ph	Bz	H	H	F	OH	H	H	NH_2
V-48-6	p-Cl-Ph	H	H	CH_2-indol-3-yl	Bz	H	H	F	OH	H	H	NH_2
V-48-7	p-Cl-Ph	H	H	$CH_2CH_2SCH_3$	Bz	H	H	F	OH	H	H	NH_2

Gilead Exhibit 2023
PGR2023-00046 - Page 00176

№	R^1	R^2	R^{3a}	R^{3b}	R^4	R^5	R^6	X	Y	R^7	R^8	R^9
V-48-8	p-Cl-Ph	*	H	*	Bz	H	H	F	OH	H	H	NH_2

*R^2 and R^{3b} joined together by $(CH_2)_3$ to form five-membered ring.

Table V-49.

№	R^1	R^2	R^{3a}	R^{3b}	R^4	R^5	R^6	X	Y	R^7	R^8	R^9
V-49-1	p-Br-Ph	H	H	H	Bz	H	H	F	OH	H	H	NH_2
V-49-2	p-Br-Ph	H	H	CH_3	Bz	H	H	F	OH	H	H	NH_2
V-49-3	p-Br-Ph	H	H	$CH(CH_3)_2$	Bz	H	H	F	OH	H	H	NH_2
V-49-4	p-Br-Ph	H	H	$CH_2CH(CH_3)_2$	Bz	H	H	F	OH	H	H	NH_2
V-49-5	p-Br-Ph	H	H	CH_2Ph	Bz	H	H	F	OH	H	H	NH_2
V-49-6	p-Br-Ph	H	H	CH_2-indol-3-yl	Bz	H	H	F	OH	H	H	NH_2
V-49-7	p-Br-Ph	H	H	$CH_2CH_2SCH_3$	Bz	H	H	F	OH	H	H	NH_2
V-49-8	p-Br-Ph	*	H	*	Bz	H	H	F	OH	H	H	NH_2

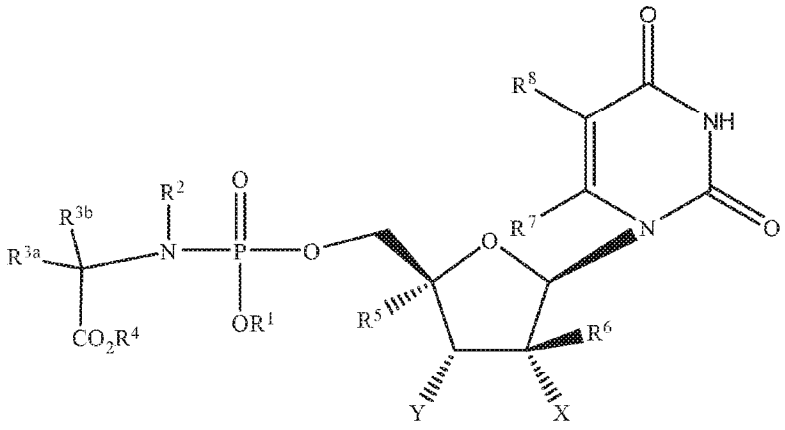
*R^2 and R^{3b} joined together by $(CH_2)_3$ to form five-membered ring.

Table V-50.

№	R^1	R^2	R^{3a}	R^{3b}	R^4	R^5	R^6	X	Y	R^7	R^8	R^9
V-50-1	p-I-Ph	H	H	H	Bz	H	H	F	OH	H	H	NH_2
V-50-2	p-I-Ph	H	H	CH_3	Bz	H	H	F	OH	H	H	NH_2
V-50-3	p-I-Ph	H	H	$CH(CH_3)_2$	Bz	H	H	F	OH	H	H	NH_2
V-50-4	p-I-Ph	H	H	$CH_2CH(CH_3)_2$	Bz	H	H	F	OH	H	H	NH_2
V-50-5	p-I-Ph	H	H	CH_2Ph	Bz	H	H	F	OH	H	H	NH_2
V-50-6	p-I-Ph	H	H	CH_2-indol-3-yl	Bz	H	H	F	OH	H	H	NH_2
V-50-7	p-I-Ph	H	H	$CH_2CH_2SCH_3$	Bz	H	H	F	OH	H	H	NH_2
V-50-8	p-I-Ph	*	H	*	Bz	H	H	F	OH	H	H	NH_2

*R^2 and R^{3b} joined together by $(CH_2)_3$ to form five-membered ring.

Gilead Exhibit 2023
PGR2023-00046 - Page 00177



VI

Table VI-1.

№	R^1	R^2	R^{3a}	R^{3b}	R^4	R^5	R^6	X	Y	R^7	R^8
VI-1-1	CH_3	H	H	H	CH_3	H	F	H	OH	H	H
VI-1-2	CH_3	H	H	CH_3	CH_3	H	F	H	OH	H	H
VI-1-3	CH_3	H	H	$CH(CH_3)_2$	CH_3	H	F	H	OH	H	H
VI-1-4	CH_3	H	H	$CH_2CH(CH_3)_2$	CH_3	H	F	H	OH	H	H
VI-1-5	CH_3	H	H	CH_2Ph	CH_3	H	F	H	OH	H	H
VI-1-6	CH_3	H	H	CH_2-indol-3-yl	CH_3	H	F	H	OH	H	H
VI-1-7	CH_3	H	H	$CH_2CH_2SCH_3$	CH_3	H	F	H	OH	H	H
VI-1-8	CH_3	*	H	*	CH_3	H	F	H	OH	H	H

*R^2 and R^{3b} joined together by $(CH_2)_3$ to form five-membered ring.

Table VI-2.

№	R^1	R^2	R^{3a}	R^{3b}	R^4	R^5	R^6	X	Y	R^7	R^8
VI-2-1	Et	H	H	H	CH_3	H	F	H	OH	H	H
VI-2-2	Et	H	H	CH_3	CH_3	H	F	H	OH	H	H
VI-2-3	Et	H	H	$CH(CH_3)_2$	CH_3	H	F	H	OH	H	H
VI-2-4	Et	H	H	$CH_2CH(CH_3)_2$	CH_3	H	F	H	OH	H	H
VI-2-5	Et	H	H	CH_2Ph	CH_3	H	F	H	OH	H	H
VI-2-6	Et	H	H	CH_2-indol-3-yl	CH_3	H	F	H	OH	H	H
VI-2-7	Et	H	H	$CH_2CH_2SCH_3$	CH_3	H	F	H	OH	H	H
VI-2-8	Et	*	H	*	CH_3	H	F	H	OH	H	H

*R^2 and R^{3b} joined together by $(CH_2)_3$ to form five-membered ring.

Gilead Exhibit 2023
PGR2023-00046 - Page 00178

Table VI-3.

№	R^1	R^2	R^{3a}	R^{3b}	R^4	R^5	R^6	X	Y	R^7	R^8
VI-3-1	^{i}Pr	H	H	H	CH_3	H	F	H	OH	H	H
VI-3-2	^{i}Pr	H	H	CH_3	CH_3	H	F	H	OH	H	H
VI-3-3	^{i}Pr	H	H	$CH(CH_3)_2$	CH_3	H	F	H	OH	H	H
VI-3-4	^{i}Pr	H	H	$CH_2CH(CH_3)_2$	CH_3	H	F	H	OH	H	H
VI-3-5	^{i}Pr	H	H	CH_2Ph	CH_3	H	F	H	OH	H	H
VI-3-6	^{i}Pr	H	H	CH_2-indol-3-yl	CH_3	H	F	H	OH	H	H
VI-3-7	^{i}Pr	H	H	$CH_2CH_2SCH_3$	CH_3	H	F	H	OH	H	H
VI-3-8	^{i}Pr	*	H	*	CH_3	H	F	H	OH	H	H

*R^2 and R^{3b} joined together by $(CH_2)_3$ to form five-membered ring.

Table VI-4.

№	R^1	R^2	R^{3a}	R^{3b}	R^4	R^5	R^6	X	Y	R^7	R^8
VI-4-1	^{t}Bu	H	H	H	CH_3	H	F	H	OH	H	H
VI-4-2	^{t}Bu	H	H	CH_3	CH_3	H	F	H	OH	H	H
VI-4-3	^{t}Bu	H	H	$CH(CH_3)_2$	CH_3	H	F	H	OH	H	H
VI-4-4	^{t}Bu	H	H	$CH_2CH(CH_3)_2$	CH_3	H	F	H	OH	H	H
VI-4-5	^{t}Bu	H	H	CH_2Ph	CH_3	H	F	H	OH	H	H
VI-4-6	^{t}Bu	H	H	CH_2-indol-3-yl	CH_3	H	F	H	OH	H	H
VI-4-7	^{t}Bu	H	H	$CH_2CH_2SCH_3$	CH_3	H	F	H	OH	H	H
VI-4-8	^{t}Bu	*	H	*	CH_3	H	F	H	OH	H	H

*R^2 and R^{3b} joined together by $(CH_2)_3$ to form five-membered ring.

Table VI-5.

№	R^1	R^2	R^{3a}	R^{3b}	R^4	R^5	R^6	X	Y	R^7	R^8
VI-5-1	Ph	H	H	H	CH_3	H	F	H	OH	H	H
VI-5-2	Ph	H	H	CH_3	CH_3	H	F	H	OH	H	H
VI-5-3	Ph	H	H	$CH(CH_3)_2$	CH_3	H	F	H	OH	H	H
VI-5-4	Ph	H	H	$CH_2CH(CH_3)_2$	CH_3	H	F	H	OH	H	H
VI-5-5	Ph	H	H	CH_2Ph	CH_3	H	F	H	OH	H	H
VI-5-6	Ph	H	H	CH_2-indol-3-yl	CH_3	H	F	H	OH	H	H
VI-5-7	Ph	H	H	$CH_2CH_2SCH_3$	CH_3	H	F	H	OH	H	H
VI-5-8	Ph	*	H	*	CH_3	H	F	H	OH	H	H

*R^2 and R^{3b} joined together by $(CH_2)_3$ to form five-membered ring.

Gilead Exhibit 2023
PGR2023-00046 - Page 00179

Table VI-6.

№	R^1	R^2	R^{3a}	R^{3b}	R^4	R^5	R^6	X	Y	R^7	R^8
VI-6-1	p-Me-Ph	H	H	H	CH_3	H	F	H	OH	H	H
VI-6-2	p-Me-Ph	H	H	CH_3	CH_3	H	F	H	OH	H	H
VI-6-3	p-Me-Ph	H	H	$CH(CH_3)_2$	CH_3	H	F	H	OH	H	H
VI-6-4	p-Me-Ph	H	H	$CH_2CH(CH_3)_2$	CH_3	H	F	H	OH	H	H
VI-6-5	p-Me-Ph	H	H	CH_2Ph	CH_3	H	F	H	OH	H	H
VI-6-6	p-Me-Ph	H	H	CH_2-indol-3-yl	CH_3	H	F	H	OH	H	H
VI-6-7	p-Me-Ph	H	H	$CH_2CH_2SCH_3$	CH_3	H	F	H	OH	H	H
VI-6-8	p-Me-Ph	*	H	*	CH_3	H	F	H	OH	H	H

*R^2 and R^{3b} joined together by $(CH_2)_3$ to form five-membered ring.

Table VI-7.

№	R^1	R^2	R^{3a}	R^{3b}	R^4	R^5	R^6	X	Y	R^7	R^8
VI-7-1	p-F-Ph	H	H	H	CH_3	H	F	H	OH	H	H
VI-7-2	p-F-Ph	H	H	CH_3	CH_3	H	F	H	OH	H	H
VI-7-3	p-F-Ph	H	H	$CH(CH_3)_2$	CH_3	H	F	H	OH	H	H
VI-7-4	p-F-Ph	H	H	$CH_2CH(CH_3)_2$	CH_3	H	F	H	OH	H	H
VI-7-6	p-F-Ph	H	H	CH_2Ph	CH_3	H	F	H	OH	H	H
VI-7-7	p-F-Ph	H	H	CH_2-indol-3-yl	CH_3	H	F	H	OH	H	H
VI-7-8	p-F-Ph	H	H	$CH_2CH_2SCH_3$	CH_3	H	F	H	OH	H	H
VI-7-20	p-F-Ph	*	H	*	CH_3	H	F	H	OH	H	H

*R^2 and R^{3b} joined together by $(CH_2)_3$ to form five-membered ring.

Table VI-8.

№	R^1	R^2	R^{3a}	R^{3b}	R^4	R^5	R^6	X	Y	R^7	R^8
VI-8-1	p-Cl-Ph	H	H	H	CH_3	H	F	H	OH	H	H
VI-8-2	p-Cl-Ph	H	H	CH_3	CH_3	H	F	H	OH	H	H
VI-8-3	p-Cl-Ph	H	H	$CH(CH_3)_2$	CH_3	H	F	H	OH	H	H
VI-8-4	p-Cl-Ph	H	H	$CH_2CH(CH_3)_2$	CH_3	H	F	H	OH	H	H
VI-8-5	p-Cl-Ph	H	H	CH_2Ph	CH_3	H	F	H	OH	H	H
VI-8-6	p-Cl-Ph	H	H	CH_2-indol-3-yl	CH_3	H	F	H	OH	H	H
VI-8-7	p-Cl-Ph	H	H	$CH_2CH_2SCH_3$	CH_3	H	F	H	OH	H	H
VI-8-8	p-Cl-Ph	*	H	*	CH_3	H	F	H	OH	H	H

*R^2 and R^{3b} joined together by $(CH_2)_3$ to form five-membered ring.

Gilead Exhibit 2023
PGR2023-00046 - Page 00180

Table VI-9.

№	R^1	R^2	R^{3a}	R^{3b}	R^4	R^5	R^6	X	Y	R^7	R^8
VI-9-1	p-Br-Ph	H	H	H	CH_3	H	F	H	OH	H	H
VI-9-2	p-Br-Ph	H	H	CH_3	CH_3	H	F	H	OH	H	H
VI-9-3	p-Br-Ph	H	H	$CH(CH_3)_2$	CH_3	H	F	H	OH	H	H
VI-9-4	p-Br-Ph	H	H	$CH_2CH(CH_3)_2$	CH_3	H	F	H	OH	H	H
VI-9-6	p-Br-Ph	H	H	CH_2Ph	CH_3	H	F	H	OH	H	H
VI-9-7	p-Br-Ph	H	H	CH_2-indol-3-yl	CH_3	H	F	H	OH	H	H
VI-9-8	p-Br-Ph	H	H	$CH_2CH_2SCH_3$	CH_3	H	F	H	OH	H	H
VI-9-20	p-Br-Ph	*	H	*	CH_3	H	F	H	OH	H	H

*R^2 and R^{3b} joined together by $(CH_2)_3$ to form five-membered ring.

Table VI-10.

№	R^1	R^2	R^{3a}	R^{3b}	R^4	R^5	R^6	X	Y	R^7	R^8
VI-10-1	p-I-Ph	H	H	H	CH_3	H	F	H	OH	H	H
VI-10-2	p-I-Ph	H	H	CH_3	CH_3	H	F	H	OH	H	H
VI-10-3	p-I-Ph	H	H	$CH(CH_3)_2$	CH_3	H	F	H	OH	H	H
VI-10-4	p-I-Ph	H	H	$CH_2CH(CH_3)_2$	CH_3	H	F	H	OH	H	H
VI-10-5	p-I-Ph	H	H	CH_2Ph	CH_3	H	F	H	OH	H	H
VI-10-6	p-I-Ph	H	H	CH_2-indol-3-yl	CH_3	H	F	H	OH	H	H
VI-10-7	p-I-Ph	H	H	$CH_2CH_2SCH_3$	CH_3	H	F	H	OH	H	H
VI-10-8	p-I-Ph	*	H	*	CH_3	H	F	H	OH	H	H

*R^2 and R^{3b} joined together by $(CH_2)_3$ to form five-membered ring.

Table VI-11.

№	R^1	R^2	R^{3a}	R^{3b}	R^4	R^5	R^6	X	Y	R^7	R^8
VI-11-1	CH_3	H	H	H	Et	H	F	H	OH	H	H
VI-11-2	CH_3	H	H	CH_3	Et	H	F	H	OH	H	H
VI-11-3	CH_3	H	H	$CH(CH_3)_2$	Et	H	F	H	OH	H	H
VI-11-4	CH_3	H	H	$CH_2CH(CH_3)_2$	Et	H	F	H	OH	H	H
VI-11-5	CH_3	H	H	CH_2Ph	Et	H	F	H	OH	H	H
VI-11-6	CH_3	H	H	CH_2-indol-3-yl	Et	H	F	H	OH	H	H
VI-11-7	CH_3	H	H	$CH_2CH_2SCH_3$	Et	H	F	H	OH	H	H
VI-11-8	CH_3	*	H	*	Et	H	F	H	OH	H	H

*R^2 and R^{3b} joined together by $(CH_2)_3$ to form five-membered ring.

Gilead Exhibit 2023
PGR2023-00046 - Page 00181

Table VI-12.

№	R^1	R^2	R^{3a}	R^{3b}	R^4	R^5	R^6	X	Y	R^7	R^8
VI-12-1	Et	H	H	H	Et	H	F	H	OH	H	H
VI-12-2	Et	H	H	CH_3	Et	H	F	H	OH	H	H
VI-12-3	Et	H	H	$CH(CH_3)_2$	Et	H	F	H	OH	H	H
VI-12-4	Et	H	H	$CH_2CH(CH_3)_2$	Et	H	F	H	OH	H	H
VI-12-5	Et	H	H	CH_2Ph	Et	H	F	H	OH	H	H
VI-12-6	Et	H	H	CH_2-indol-3-yl	Et	H	F	H	OH	H	H
VI-12-7	Et	H	H	$CH_2CH_2SCH_3$	Et	H	F	H	OH	H	H
VI-12-8	Et	*	H	*	Et	H	F	H	OH	H	H

*R^2 and R^{3b} joined together by $(CH_2)_3$ to form five-membered ring.

Table VI-13.

№	R^1	R^2	R^{3a}	R^{3b}	R^4	R^5	R^6	X	Y	R^7	R^8
VI-13-1	^{i}Pr	H	H	H	Et	H	F	H	OH	H	H
VI-13-2	^{i}Pr	H	H	CH_3	Et	H	F	H	OH	H	H
VI-13-3	^{i}Pr	H	H	$CH(CH_3)_2$	Et	H	F	H	OH	H	H
VI-13-4	^{i}Pr	H	H	$CH_2CH(CH_3)_2$	Et	H	F	H	OH	H	H
VI-13-5	^{i}Pr	H	H	CH_2Ph	Et	H	F	H	OH	H	H
VI-13-6	^{i}Pr	H	H	CH_2-indol-3-yl	Et	H	F	H	OH	H	H
VI-13-7	^{i}Pr	H	H	$CH_2CH_2SCH_3$	Et	H	F	H	OH	H	H
VI-13-8	^{i}Pr	*	H	*	Et	H	F	H	OH	H	H

*R^2 and R^{3b} joined together by $(CH_2)_3$ to form five-membered ring.

Table VI-14.

№	R^1	R^2	R^{3a}	R^{3b}	R^4	R^5	R^6	X	Y	R^7	R^8
VI-14-1	^{t}Bu	H	H	H	Et	H	F	H	OH	H	H
VI-14-2	^{t}Bu	H	H	CH_3	Et	H	F	H	OH	H	H
VI-14-3	^{t}Bu	H	H	$CH(CH_3)_2$	Et	H	F	H	OH	H	H
VI-14-4	^{t}Bu	H	H	$CH_2CH(CH_3)_2$	Et	H	F	H	OH	H	H
VI-14-5	^{t}Bu	H	H	CH_2Ph	Et	H	F	H	OH	H	H
VI-14-6	^{t}Bu	H	H	CH_2-indol-3-yl	Et	H	F	H	OH	H	H
VI-14-7	^{t}Bu	H	H	$CH_2CH_2SCH_3$	Et	H	F	H	OH	H	H
VI-14-8	^{t}Bu	*	H	*	Et	H	F	H	OH	H	H

*R^2 and R^{3b} joined together by $(CH_2)_3$ to form five-membered ring.

Gilead Exhibit 2023
PGR2023-00046 - Page 00182

Table VI-15.

№	R^1	R^2	R^{3a}	R^{3b}	R^4	R^5	R^6	X	Y	R^7	R^8
VI-15-1	Ph	H	H	H	Et	H	F	H	OH	H	H
VI-15-2	Ph	H	H	CH_3	Et	H	F	H	OH	H	H
VI-15-3	Ph	H	H	$CH(CH_3)_2$	Et	H	F	H	OH	H	H
VI-15-4	Ph	H	H	$CH_2CH(CH_3)_2$	Et	H	F	H	OH	H	H
VI-15-5	Ph	H	H	CH_2Ph	Et	H	F	H	OH	H	H
VI-15-6	Ph	H	H	CH_2-indol-3-yl	Et	H	F	H	OH	H	H
VI-15-7	Ph	H	H	$CH_2CH_2SCH_3$	Et	H	F	H	OH	H	H
VI-15-8	Ph	*	H	*	Et	H	F	H	OH	H	H

*R^2 and R^{3b} joined together by $(CH_2)_3$ to form five-membered ring.

Table VI-16.

№	R^1	R^2	R^{3a}	R^{3b}	R^4	R^5	R^6	X	Y	R^7	R^8
VI-16-1	p-Me-Ph	H	H	H	Et	H	F	H	OH	H	H
VI-16-2	p-Me-Ph	H	H	CH_3	Et	H	F	H	OH	H	H
VI-16-3	p-Me-Ph	H	H	$CH(CH_3)_2$	Et	H	F	H	OH	H	H
VI-16-4	p-Me-Ph	H	H	$CH_2CH(CH_3)_2$	Et	H	F	H	OH	H	H
VI-16-5	p-Me-Ph	H	H	CH_2Ph	Et	H	F	H	OH	H	H
VI-16-6	p-Me-Ph	H	H	CH_2-indol-3-yl	Et	H	F	H	OH	H	H
VI-16-7	p-Me-Ph	H	H	$CH_2CH_2SCH_3$	Et	H	F	H	OH	H	H
VI-16-8	p-Me-Ph	*	H	*	Et	H	F	H	OH	H	H

*R^2 and R^{3b} joined together by $(CH_2)_3$ to form five-membered ring.

Table VI-17.

№	R^1	R^2	R^{3a}	R^{3b}	R^4	R^5	R^6	X	Y	R^7	R^8
VI-17-1	p-F-Ph	H	H	H	Et	H	F	H	OH	H	H
VI-17-2	p-F-Ph	H	H	CH_3	Et	H	F	H	OH	H	H
VI-17-3	p-F-Ph	H	H	$CH(CH_3)_2$	Et	H	F	H	OH	H	H
VI-17-4	p-F-Ph	H	H	$CH_2CH(CH_3)_2$	Et	H	F	H	OH	H	H
VI-17-5	p-F-Ph	H	H	CH_2Ph	Et	H	F	H	OH	H	H
VI-17-6	p-F-Ph	H	H	CH_2-indol-3-yl	Et	H	F	H	OH	H	H
VI-17-7	p-F-Ph	H	H	$CH_2CH_2SCH_3$	Et	H	F	H	OH	H	H
VI-17-8	p-F-Ph	*	H	*	Et	H	F	H	OH	H	H

*R^2 and R^{3b} joined together by $(CH_2)_3$ to form five-membered ring.

Gilead Exhibit 2023
PGR2023-00046 - Page 00183

Table VI-18.

№	R^1	R^2	R^{3a}	R^{3b}	R^4	R^5	R^6	X	Y	R^7	R^8
VI-18-1	p-Cl-Ph	H	H	H	Et	H	F	H	OH	H	H
VI-18-2	p-Cl-Ph	H	H	CH_3	Et	H	F	H	OH	H	H
VI-18-3	p-Cl-Ph	H	H	$CH(CH_3)_2$	Et	H	F	H	OH	H	H
VI-18-4	p-Cl-Ph	H	H	$CH_2CH(CH_3)_2$	Et	H	F	H	OH	H	H
VI-18-5	p-Cl-Ph	H	H	CH_2Ph	Et	H	F	H	OH	H	H
VI-18-6	p-Cl-Ph	H	H	CH_2-indol-3-yl	Et	H	F	H	OH	H	H
VI-18-7	p-Cl-Ph	H	H	$CH_2CH_2SCH_3$	Et	H	F	H	OH	H	H
VI-18-8	p-Cl-Ph	*	H	*	Et	H	F	H	OH	H	H

*R^2 and R^{3b} joined together by $(CH_2)_3$ to form five-membered ring.

Table VI-19.

№	R^1	R^2	R^{3a}	R^{3b}	R^4	R^5	R^6	X	Y	R^7	R^8
VI-19-1	p-Br-Ph	H	H	H	Et	H	F	H	OH	H	H
VI-19-2	p-Br-Ph	H	H	CH_3	Et	H	F	H	OH	H	H
VI-19-3	p-Br-Ph	H	H	$CH(CH_3)_2$	Et	H	F	H	OH	H	H
VI-19-4	p-Br-Ph	H	H	$CH_2CH(CH_3)_2$	Et	H	F	H	OH	H	H
VI-19-5	p-Br-Ph	H	H	CH_2Ph	Et	H	F	H	OH	H	H
VI-19-6	p-Br-Ph	H	H	CH_2-indol-3-yl	Et	H	F	H	OH	H	H
VI-19-7	p-Br-Ph	H	H	$CH_2CH_2SCH_3$	Et	H	F	H	OH	H	H
VI-19-8	p-Br-Ph	*	H	*	Et	H	F	H	OH	H	H

*R^2 and R^{3b} joined together by $(CH_2)_3$ to form five-membered ring.

Table VI-20.

№	R^1	R^2	R^{3a}	R^{3b}	R^4	R^5	R^6	X	Y	R^7	R^8
VI-20-1	p-I-Ph	H	H	H	Et	H	F	H	OH	H	H
VI-20-2	p-I-Ph	H	H	CH_3	Et	H	F	H	OH	H	H
VI-20-3	p-I-Ph	H	H	$CH(CH_3)_2$	Et	H	F	H	OH	H	H
VI-20-4	p-I-Ph	H	H	$CH_2CH(CH_3)_2$	Et	H	F	H	OH	H	H
VI-20-5	p-I-Ph	H	H	CH_2Ph	Et	H	F	H	OH	H	H
VI-20-6	p-I-Ph	H	H	CH_2-indol-3-yl	Et	H	F	H	OH	H	H
VI-20-7	p-I-Ph	H	H	$CH_2CH_2SCH_3$	Et	H	F	H	OH	H	H
VI-20-8	p-I-Ph	*	H	*	Et	H	F	H	OH	H	H

*R^2 and R^{3b} joined together by $(CH_2)_3$ to form five-membered ring.

Gilead Exhibit 2023
PGR2023-00046 - Page 00184

Table VI-21.

№	R^1	R^2	R^{3a}	R^{3b}	R^4	R^5	R^6	X	Y	R^7	R^8
VI-21-1	CH_3	H	H	H	^{i}Pr	H	F	H	OH	H	H
VI-21-2	CH_3	H	H	CH_3	^{i}Pr	H	F	H	OH	H	H
VI-21-3	CH_3	H	H	$CH(CH_3)_2$	^{i}Pr	H	F	H	OH	H	H
VI-21-4	CH_3	H	H	$CH_2CH(CH_3)_2$	^{i}Pr	H	F	H	OH	H	H
VI-21-5	CH_3	H	H	CH_2Ph	^{i}Pr	H	F	H	OH	H	H
VI-21-6	CH_3	H	H	CH_2-indol-3-yl	^{i}Pr	H	F	H	OH	H	H
VI-21-7	CH_3	H	H	$CH_2CH_2SCH_3$	^{i}Pr	H	F	H	OH	H	H
VI-21-8	CH_3	*	H	*	^{i}Pr	H	F	H	OH	H	H

*R^2 and R^{3b} joined together by $(CH_2)_3$ to form five-membered ring.

Table VI-22.

№	R^1	R^2	R^{3a}	R^{3b}	R^4	R^5	R^6	X	Y	R^7	R^8
VI-22-1	Et	H	H	H	^{i}Pr	H	F	H	OH	H	H
VI-22-2	Et	H	H	CH_3	^{i}Pr	H	F	H	OH	H	H
VI-22-3	Et	H	H	$CH(CH_3)_2$	^{i}Pr	H	F	H	OH	H	H
VI-22-4	Et	H	H	$CH_2CH(CH_3)_2$	^{i}Pr	H	F	H	OH	H	H
VI-22-5	Et	H	H	CH_2Ph	^{i}Pr	H	F	H	OH	H	H
VI-22-6	Et	H	H	CH_2-indol-3-yl	^{i}Pr	H	F	H	OH	H	H
VI-22-7	Et	H	H	$CH_2CH_2SCH_3$	^{i}Pr	H	F	H	OH	H	H
VI-22-8	Et	*	H	*	^{i}Pr	H	F	H	OH	H	H

*R^2 and R^{3b} joined together by $(CH_2)_3$ to form five-membered ring.

Table VI-23.

№	R^1	R^2	R^{3a}	R^{3b}	R^4	R^5	R^6	X	Y	R^7	R^8
VI-23-1	^{i}Pr	H	H	H	^{i}Pr	H	F	H	OH	H	H
VI-23-2	^{i}Pr	H	H	CH_3	^{i}Pr	H	F	H	OH	H	H
VI-23-3	^{i}Pr	H	H	$CH(CH_3)_2$	^{i}Pr	H	F	H	OH	H	H
VI-23-4	^{i}Pr	H	H	$CH_2CH(CH_3)_2$	^{i}Pr	H	F	H	OH	H	H
VI-23-5	^{i}Pr	H	H	CH_2Ph	^{i}Pr	H	F	H	OH	H	H
VI-23-6	^{i}Pr	H	H	CH_2-indol-3-yl	^{i}Pr	H	F	H	OH	H	H
VI-23-7	^{i}Pr	H	H	$CH_2CH_2SCH_3$	^{i}Pr	H	F	H	OH	H	H
VI-23-8	^{i}Pr	*	H	*	^{i}Pr	H	F	H	OH	H	H

*R^2 and R^{3b} joined together by $(CH_2)_3$ to form five-membered ring.

Gilead Exhibit 2023
PGR2023-00046 - Page 00185

Table VI-24.

№	R^1	R^2	R^{3a}	R^{3b}	R^4	R^5	R^6	X	Y	R^7	R^8
VI-24-1	^{t}Bu	H	H	H	^{i}Pr	H	F	H	OH	H	H
VI-24-2	^{t}Bu	H	H	CH_3	^{i}Pr	H	F	H	OH	H	H
VI-24-3	^{t}Bu	H	H	$CH(CH_3)_2$	^{i}Pr	H	F	H	OH	H	H
VI-24-4	^{t}Bu	H	H	$CH_2CH(CH_3)_2$	^{i}Pr	H	F	H	OH	H	H
VI-24-5	^{t}Bu	H	H	CH_2Ph	^{i}Pr	H	F	H	OH	H	H
VI-24-6	^{t}Bu	H	H	CH_2-indol-3-yl	^{i}Pr	H	F	H	OH	H	H
VI-24-7	^{t}Bu	H	H	$CH_2CH_2SCH_3$	^{i}Pr	H	F	H	OH	H	H
VI-24-8	^{t}Bu	*	H	*	^{i}Pr	H	F	H	OH	H	H

*R^2 and R^{3b} joined together by $(CH_2)_3$ to form five-membered ring.

Table VI-25.

№	R^1	R^2	R^{3a}	R^{3b}	R^4	R^5	R^6	X	Y	R^7	R^8
VI-25-1	Ph	H	H	H	^{i}Pr	H	F	H	OH	H	H
VI-25-2	Ph	H	H	CH_3	^{i}Pr	H	F	H	OH	H	H
VI-25-3	Ph	H	H	$CH(CH_3)_2$	^{i}Pr	H	F	H	OH	H	H
VI-25-4	Ph	H	H	$CH_2CH(CH_3)_2$	^{i}Pr	H	F	H	OH	H	H
VI-25-5	Ph	H	H	CH_2Ph	^{i}Pr	H	F	H	OH	H	H
VI-25-6	Ph	H	H	CH_2-indol-3-yl	^{i}Pr	H	F	H	OH	H	H
VI-25-7	Ph	H	H	$CH_2CH_2SCH_3$	^{i}Pr	H	F	H	OH	H	H
VI-25-8	Ph	*	H	*	^{i}Pr	H	F	H	OH	H	H

*R^2 and R^{3b} joined together by $(CH_2)_3$ to form five-membered ring.

Table VI-26.

№	R^1	R^2	R^{3a}	R^{3b}	R^4	R^5	R^6	X	Y	R^7	R^8
VI-26-1	p-Me-Ph	H	H	H	^{i}Pr	H	F	H	OH	H	H
VI-26-2	p-Me-Ph	H	H	CH_3	^{i}Pr	H	F	H	OH	H	H
VI-26-3	p-Me-Ph	H	H	$CH(CH_3)_2$	^{i}Pr	H	F	H	OH	H	H
VI-26-4	p-Me-Ph	H	H	$CH_2CH(CH_3)_2$	^{i}Pr	H	F	H	OH	H	H
VI-26-5	p-Me-Ph	H	H	CH_2Ph	^{i}Pr	H	F	H	OH	H	H
VI-26-6	p-Me-Ph	H	H	CH_2-indol-3-yl	^{i}Pr	H	F	H	OH	H	H
VI-26-7	p-Me-Ph	H	H	$CH_2CH_2SCH_3$	^{i}Pr	H	F	H	OH	H	H
VI-26-8	p-Me-Ph	*	H	*	^{i}Pr	H	F	H	OH	H	H

*R^2 and R^{3b} joined together by $(CH_2)_3$ to form five-membered ring.

Gilead Exhibit 2023
PGR2023-00046 - Page 00186

Table VI-27.

№	R^1	R^2	R^{3a}	R^{3b}	R^4	R^5	R^6	X	Y	R^7	R^8
VI-27-1	p-F-Ph	H	H	H	^{i}Pr	H	F	H	OH	H	H
VI-27-2	p-F-Ph	H	H	CH_3	^{i}Pr	H	F	H	OH	H	H
VI-27-3	p-F-Ph	H	H	$CH(CH_3)_2$	^{i}Pr	H	F	H	OH	H	H
VI-27-4	p-F-Ph	H	H	$CH_2CH(CH_3)_2$	^{i}Pr	H	F	H	OH	H	H
VI-27-5	p-F-Ph	H	H	CH_2Ph	^{i}Pr	H	F	H	OH	H	H
VI-27-6	p-F-Ph	H	H	CH_2-indol-3-yl	^{i}Pr	H	F	H	OH	H	H
VI-27-7	p-F-Ph	H	H	$CH_2CH_2SCH_3$	^{i}Pr	H	F	H	OH	H	H
VI-27-8	p-F-Ph	*	H	*	^{i}Pr	H	F	H	OH	H	H

*R^2 and R^{3b} joined together by $(CH_2)_3$ to form five-membered ring.

Table VI-28.

№	R^1	R^2	R^{3a}	R^{3b}	R^4	R^5	R^6	X	Y	R^7	R^8
VI-28-1	p-Cl-Ph	H	H	H	^{i}Pr	H	F	H	OH	H	H
VI-28-2	p-Cl-Ph	H	H	CH_3	^{i}Pr	H	F	H	OH	H	H
VI-28-3	p-Cl-Ph	H	H	$CH(CH_3)_2$	^{i}Pr	H	F	H	OH	H	H
VI-28-4	p-Cl-Ph	H	H	$CH_2CH(CH_3)_2$	^{i}Pr	H	F	H	OH	H	H
VI-28-5	p-Cl-Ph	H	H	CH_2Ph	^{i}Pr	H	F	H	OH	H	H
VI-28-6	p-Cl-Ph	H	H	CH_2-indol-3-yl	^{i}Pr	H	F	H	OH	H	H
VI-28-7	p-Cl-Ph	H	H	$CH_2CH_2SCH_3$	^{i}Pr	H	F	H	OH	H	H
VI-28-8	p-Cl-Ph	*	H	*	^{i}Pr	H	F	H	OH	H	H

*R^2 and R^{3b} joined together by $(CH_2)_3$ to form five-membered ring.

Table VI-29.

№	R^1	R^2	R^{3a}	R^{3b}	R^4	R^5	R^6	X	Y	R^7	R^8
VI-29-1	p-Br-Ph	H	H	H	^{i}Pr	H	F	H	OH	H	H
VI-29-2	p-Br-Ph	H	H	CH_3	^{i}Pr	H	F	H	OH	H	H
VI-29-3	p-Br-Ph	H	H	$CH(CH_3)_2$	^{i}Pr	H	F	H	OH	H	H
VI-29-4	p-Br-Ph	H	H	$CH_2CH(CH_3)_2$	^{i}Pr	H	F	H	OH	H	H
VI-29-5	p-Br-Ph	H	H	CH_2Ph	^{i}Pr	H	F	H	OH	H	H
VI-29-6	p-Br-Ph	H	H	CH_2-indol-3-yl	^{i}Pr	H	F	H	OH	H	H
VI-29-7	p-Br-Ph	H	H	$CH_2CH_2SCH_3$	^{i}Pr	H	F	H	OH	H	H
VI-29-8	p-Br-Ph	*	H	*	^{i}Pr	H	F	H	OH	H	H

*R^2 and R^{3b} joined together by $(CH_2)_3$ to form five-membered ring.

Gilead Exhibit 2023
PGR2023-00046 - Page 00187

Table VI-30.

№	R^1	R^2	R^{3a}	R^{3b}	R^4	R^5	R^6	X	Y	R^7	R^8
VI-30-1	p-I-Ph	H	H	H	^{i}Pr	H	F	H	OH	H	H
VI-30-2	p-I-Ph	H	H	CH_3	^{i}Pr	H	F	H	OH	H	H
VI-30-3	p-I-Ph	H	H	$CH(CH_3)_2$	^{i}Pr	H	F	H	OH	H	H
VI-30-4	p-I-Ph	H	H	$CH_2CH(CH_3)_2$	^{i}Pr	H	F	H	OH	H	H
VI-30-5	p-I-Ph	H	H	CH_2Ph	^{i}Pr	H	F	H	OH	H	H
VI-30-6	p-I-Ph	H	H	CH_2-indol-3-yl	^{i}Pr	H	F	H	OH	H	H
VI-30-7	p-I-Ph	H	H	$CH_2CH_2SCH_3$	^{i}Pr	H	F	H	OH	H	H
VI-30-8	p-I-Ph	*	H	*	^{i}Pr	H	F	H	OH	H	H

*R^2 and R^{3b} joined together by $(CH_2)_3$ to form five-membered ring.

Table VI-31.

№	R^1	R^2	R^{3a}	R^{3b}	R^4	R^5	R^6	X	Y	R^7	R^8
VI-31-1	CH_3	H	H	H	^{n}Bu	H	F	H	OH	H	H
VI-31-2	CH_3	H	H	CH_3	^{n}Bu	H	F	H	OH	H	H
VI-31-3	CH_3	H	H	$CH(CH_3)_2$	^{n}Bu	H	F	H	OH	H	H
VI-31-4	CH_3	H	H	$CH_2CH(CH_3)_2$	^{n}Bu	H	F	H	OH	H	H
VI-31-5	CH_3	H	H	CH_2Ph	^{n}Bu	H	F	H	OH	H	H
VI-31-6	CH_3	H	H	CH_2-indol-3-yl	^{n}Bu	H	F	H	OH	H	H
VI-31-7	CH_3	H	H	$CH_2CH_2SCH_3$	^{n}Bu	H	F	H	OH	H	H
VI-31-8	CH_3	*	H	*	^{n}Bu	H	F	H	OH	H	H

*R^2 and R^{3b} joined together by $(CH_2)_3$ to form five-membered ring.

Table VI-32.

№	R^1	R^2	R^{3a}	R^{3b}	R^4	R^5	R^6	X	Y	R^7	R^8
VI-32-1	Et	H	H	H	^{n}Bu	H	F	H	OH	H	H
VI-32-2	Et	H	H	CH_3	^{n}Bu	H	F	H	OH	H	H
VI-32-3	Et	H	H	$CH(CH_3)_2$	^{n}Bu	H	F	H	OH	H	H
VI-32-4	Et	H	H	$CH_2CH(CH_3)_2$	^{n}Bu	H	F	H	OH	H	H
VI-32-5	Et	H	H	CH_2Ph	^{n}Bu	H	F	H	OH	H	H
VI-32-6	Et	H	H	CH_2-indol-3-yl	^{n}Bu	H	F	H	OH	H	H
VI-32-7	Et	H	H	$CH_2CH_2SCH_3$	^{n}Bu	H	F	H	OH	H	H
VI-32-8	Et	*	H	*	^{n}Bu	H	F	H	OH	H	H

*R^2 and R^{3b} joined together by $(CH_2)_3$ to form five-membered ring.

Gilead Exhibit 2023
PGR2023-00046 - Page 00188

Table VI-33.

№	R^1	R^2	R^{3a}	R^{3b}	R^4	R^5	R^6	X	Y	R^7	R^8
VI-33-1	^{i}Pr	H	H	H	^{n}Bu	H	F	H	OH	H	H
VI-33-2	^{i}Pr	H	H	CH_3	^{n}Bu	H	F	H	OH	H	H
VI-33-3	^{i}Pr	H	H	$CH(CH_3)_2$	^{n}Bu	H	F	H	OH	H	H
VI-33-4	^{i}Pr	H	H	$CH_2CH(CH_3)_2$	^{n}Bu	H	F	H	OH	H	H
VI-33-5	^{i}Pr	H	H	CH_2Ph	^{n}Bu	H	F	H	OH	H	H
VI-33-6	^{i}Pr	H	H	CH_2-indol-3-yl	^{n}Bu	H	F	H	OH	H	H
VI-33-7	^{i}Pr	H	H	$CH_2CH_2SCH_3$	^{n}Bu	H	F	H	OH	H	H
VI-33-8	^{i}Pr	*	H	*	^{n}Bu	H	F	H	OH	H	H

*R^2 and R^{3b} joined together by $(CH_2)_3$ to form five-membered ring.

Table VI-34.

№	R^1	R^2	R^{3a}	R^{3b}	R^4	R^5	R^6	X	Y	R^7	R^8
VI-34-1	^{t}Bu	H	H	H	^{n}Bu	H	F	H	OH	H	H
VI-34-2	^{t}Bu	H	H	CH_3	^{n}Bu	H	F	H	OH	H	H
VI-34-3	^{t}Bu	H	H	$CH(CH_3)_2$	^{n}Bu	H	F	H	OH	H	H
VI-34-4	^{t}Bu	H	H	$CH_2CH(CH_3)_2$	^{n}Bu	H	F	H	OH	H	H
VI-34-5	^{t}Bu	H	H	CH_2Ph	^{n}Bu	H	F	H	OH	H	H
VI-34-6	^{t}Bu	H	H	CH_2-indol-3-yl	^{n}Bu	H	F	H	OH	H	H
VI-34-7	^{t}Bu	H	H	$CH_2CH_2SCH_3$	^{n}Bu	H	F	H	OH	H	H
VI-34-8	^{t}Bu	*	H	*	^{n}Bu	H	F	H	OH	H	H

*R^2 and R^{3b} joined together by $(CH_2)_3$ to form five-membered ring.

Table VI-35.

№	R^1	R^2	R^{3a}	R^{3b}	R^4	R^5	R^6	X	Y	R^7	R^8
VI-35-1	Ph	H	H	H	^{n}Bu	H	F	H	OH	H	H
VI-35-2	Ph	H	H	CH_3	^{n}Bu	H	F	H	OH	H	H
VI-35-3	Ph	H	H	$CH(CH_3)_2$	^{n}Bu	H	F	H	OH	H	H
VI-35-4	Ph	H	H	$CH_2CH(CH_3)_2$	^{n}Bu	H	F	H	OH	H	H
VI-35-5	Ph	H	H	CH_2Ph	^{n}Bu	H	F	H	OH	H	H
VI-35-6	Ph	H	H	CH_2-indol-3-yl	^{n}Bu	H	F	H	OH	H	H
VI-35-7	Ph	H	H	$CH_2CH_2SCH_3$	^{n}Bu	H	F	H	OH	H	H
VI-35-8	Ph	*	H	*	^{n}Bu	H	F	H	OH	H	H

*R^2 and R^{3b} joined together by $(CH_2)_3$ to form five-membered ring.

Gilead Exhibit 2023
PGR2023-00046 - Page 00189

Table VI-36.

№	R^1	R^2	R^{3a}	R^{3b}	R^4	R^5	R^6	X	Y	R^7	R^8
VI-36-1	p-Me-Ph	H	H	H	^{n}Bu	H	F	H	OH	H	H
VI-36-2	p-Me-Ph	H	H	CH_3	^{n}Bu	H	F	H	OH	H	H
VI-36-3	p-Me-Ph	H	H	$CH(CH_3)_2$	^{n}Bu	H	F	H	OH	H	H
VI-36-4	p-Me-Ph	H	H	$CH_2CH(CH_3)_2$	^{n}Bu	H	F	H	OH	H	H
VI-36-5	p-Me-Ph	H	H	CH_2Ph	^{n}Bu	H	F	H	OH	H	H
VI-36-6	p-Me-Ph	H	H	CH_2-indol-3-yl	^{n}Bu	H	F	H	OH	H	H
VI-36-7	p-Me-Ph	H	H	$CH_2CH_2SCH_3$	^{n}Bu	H	F	H	OH	H	H
VI-36-8	p-Me-Ph	*	H	*	^{n}Bu	H	F	H	OH	H	H

*R^2 and R^{3b} joined together by $(CH_2)_3$ to form five-membered ring.

Table VI-37.

№	R^1	R^2	R^{3a}	R^{3b}	R^4	R^5	R^6	X	Y	R^7	R^8
VI-37-1	p-F-Ph	H	H	H	^{n}Bu	H	F	H	OH	H	H
VI-37-2	p-F-Ph	H	H	CH_3	^{n}Bu	H	F	H	OH	H	H
VI-37-3	p-F-Ph	H	H	$CH(CH_3)_2$	^{n}Bu	H	F	H	OH	H	H
VI-37-4	p-F-Ph	H	H	$CH_2CH(CH_3)_2$	^{n}Bu	H	F	H	OH	H	H
VI-37-5	p-F-Ph	H	H	CH_2Ph	^{n}Bu	H	F	H	OH	H	H
VI-37-6	p-F-Ph	H	H	CH_2-indol-3-yl	^{n}Bu	H	F	H	OH	H	H
VI-37-7	p-F-Ph	H	H	$CH_2CH_2SCH_3$	^{n}Bu	H	F	H	OH	H	H
VI-37-8	p-F-Ph	*	H	*	^{n}Bu	H	F	H	OH	H	H

*R^2 and R^{3b} joined together by $(CH_2)_3$ to form five-membered ring.

Table VI-38.

№	R^1	R^2	R^{3a}	R^{3b}	R^4	R^5	R^6	X	Y	R^7	R^8
VI-38-1	p-Cl-Ph	H	H	H	^{n}Bu	H	F	H	OH	H	H
VI-38-2	p-Cl-Ph	H	H	CH_3	^{n}Bu	H	F	H	OH	H	H
VI-38-3	p-Cl-Ph	H	H	$CH(CH_3)_2$	^{n}Bu	H	F	H	OH	H	H
VI-38-4	p-Cl-Ph	H	H	$CH_2CH(CH_3)_2$	^{n}Bu	H	F	H	OH	H	H
VI-38-5	p-Cl-Ph	H	H	CH_2Ph	^{n}Bu	H	F	H	OH	H	H
VI-38-6	p-Cl-Ph	H	H	CH_2-indol-3-yl	^{n}Bu	H	F	H	OH	H	H
VI-38-7	p-Cl-Ph	H	H	$CH_2CH_2SCH_3$	^{n}Bu	H	F	H	OH	H	H
VI-38-8	p-Cl-Ph	*	H	*	^{n}Bu	H	F	H	OH	H	H

*R^2 and R^{3b} joined together by $(CH_2)_3$ to form five-membered ring.

Gilead Exhibit 2023
PGR2023-00046 - Page 00190

Table VI-39.

№	R^1	R^2	R^{3a}	R^{3b}	R^4	R^5	R^6	X	Y	R^7	R^8
VI-39-1	p-Br-Ph	H	H	H	^{n}Bu	H	F	H	OH	H	H
VI-39-2	p-Br-Ph	H	H	CH_3	^{n}Bu	H	F	H	OH	H	H
VI-39-3	p-Br-Ph	H	H	$CH(CH_3)_2$	^{n}Bu	H	F	H	OH	H	H
VI-39-4	p-Br-Ph	H	H	$CH_2CH(CH_3)_2$	^{n}Bu	H	F	H	OH	H	H
VI-39-5	p-Br-Ph	H	H	CH_2Ph	^{n}Bu	H	F	H	OH	H	H
VI-39-6	p-Br-Ph	H	H	CH_2-indol-3-yl	^{n}Bu	H	F	H	OH	H	H
VI-39-7	p-Br-Ph	H	H	$CH_2CH_2SCH_3$	^{n}Bu	H	F	H	OH	H	H
VI-39-8	p-Br-Ph	*	H	*	^{n}Bu	H	F	H	OH	H	H

*R^2 and R^{3b} joined together by $(CH_2)_3$ to form five-membered ring.

Table VI-40.

№	R^1	R^2	R^{3a}	R^{3b}	R^4	R^5	R^6	X	Y	R^7	R^8
VI-40-1	p-I-Ph	H	H	H	^{n}Bu	H	F	H	OH	H	H
VI-40-2	p-I-Ph	H	H	CH_3	^{n}Bu	H	F	H	OH	H	H
VI-40-3	p-I-Ph	H	H	$CH(CH_3)_2$	^{n}Bu	H	F	H	OH	H	H
VI-40-4	p-I-Ph	H	H	$CH_2CH(CH_3)_2$	^{n}Bu	H	F	H	OH	H	H
VI-40-5	p-I-Ph	H	H	CH_2Ph	^{n}Bu	H	F	H	OH	H	H
VI-40-6	p-I-Ph	H	H	CH_2-indol-3-yl	^{n}Bu	H	F	H	OH	H	H
VI-40-7	p-I-Ph	H	H	$CH_2CH_2SCH_3$	^{n}Bu	H	F	H	OH	H	H
VI-40-8	p-I-Ph	*	H	*	^{n}Bu	H	F	H	OH	H	H

*R^2 and R^{3b} joined together by $(CH_2)_3$ to form five-membered ring.

Table VI-41.

№	R^1	R^2	R^{3a}	R^{3b}	R^4	R^5	R^6	X	Y	R^7	R^8
VI-41-1	CH_3	H	H	H	Bz	H	F	H	OH	H	H
VI-41-2	CH_3	H	H	CH_3	Bz	H	F	H	OH	H	H
VI-41-3	CH_3	H	H	$CH(CH_3)_2$	Bz	H	F	H	OH	H	H
VI-41-4	CH_3	H	H	$CH_2CH(CH_3)_2$	Bz	H	F	H	OH	H	H
VI-41-5	CH_3	H	H	CH_2Ph	Bz	H	F	H	OH	H	H
VI-41-6	CH_3	H	H	CH_2-indol-3-yl	Bz	H	F	H	OH	H	H
VI-41-7	CH_3	H	H	$CH_2CH_2SCH_3$	Bz	H	F	H	OH	H	H
VI-41-8	CH_3	*	H	*	Bz	H	F	H	OH	H	H

*R^2 and R^{3b} joined together by $(CH_2)_3$ to form five-membered ring.

Gilead Exhibit 2023
PGR2023-00046 - Page 00191

Table VI-42.

№	R^1	R^2	R^{3a}	R^{3b}	R^4	R^5	R^6	X	Y	R^7	R^8
VI-42-1	Et	H	H	H	Bz	H	F	H	OH	H	H
VI-42-2	Et	H	H	CH_3	Bz	H	F	H	OH	H	H
VI-42-3	Et	H	H	$CH(CH_3)_2$	Bz	H	F	H	OH	H	H
VI-42-4	Et	H	H	$CH_2CH(CH_3)_2$	Bz	H	F	H	OH	H	H
VI-42-5	Et	H	H	CH_2Ph	Bz	H	F	H	OH	H	H
VI-42-6	Et	H	H	CH_2-indol-3-yl	Bz	H	F	H	OH	H	H
VI-42-7	Et	H	H	$CH_2CH_2SCH_3$	Bz	H	F	H	OH	H	H
VI-42-8	Et	*	H	*	Bz	H	F	H	OH	H	H

*R^2 and R^{3b} joined together by $(CH_2)_3$ to form five-membered ring.

Table VI-43.

№	R^1	R^2	R^{3a}	R^{3b}	R^4	R^5	R^6	X	Y	R^7	R^8
VI-43-1	^{i}Pr	H	H	H	Bz	H	F	H	OH	H	H
VI-43-2	^{i}Pr	H	H	CH_3	Bz	H	F	H	OH	H	H
VI-43-3	^{i}Pr	H	H	$CH(CH_3)_2$	Bz	H	F	H	OH	H	H
VI-43-4	^{i}Pr	H	H	$CH_2CH(CH_3)_2$	Bz	H	F	H	OH	H	H
VI-43-5	^{i}Pr	H	H	CH_2Ph	Bz	H	F	H	OH	H	H
VI-43-6	^{i}Pr	H	H	CH_2-indol-3-yl	Bz	H	F	H	OH	H	H
VI-43-7	^{i}Pr	H	H	$CH_2CH_2SCH_3$	Bz	H	F	H	OH	H	H
VI-43-8	^{i}Pr	*	H	*	Bz	H	F	H	OH	H	H

*R^2 and R^{3b} joined together by $(CH_2)_3$ to form five-membered ring.

Table VI-44.

№	R^1	R^2	R^{3a}	R^{3b}	R^4	R^5	R^6	X	Y	R^7	R^8
VI-44-1	^{t}Bu	H	H	H	Bz	H	F	H	OH	H	H
VI-44-2	^{t}Bu	H	H	CH_3	Bz	H	F	H	OH	H	H
VI-44-3	^{t}Bu	H	H	$CH(CH_3)_2$	Bz	H	F	H	OH	H	H
VI-44-4	^{t}Bu	H	H	$CH_2CH(CH_3)_2$	Bz	H	F	H	OH	H	H
VI-44-5	^{t}Bu	H	H	CH_2Ph	Bz	H	F	H	OH	H	H
VI-44-6	^{t}Bu	H	H	CH_2-indol-3-yl	Bz	H	F	H	OH	H	H
VI-44-7	^{t}Bu	H	H	$CH_2CH_2SCH_3$	Bz	H	F	H	OH	H	H
VI-44-8	^{t}Bu	*	H	*	Bz	H	F	H	OH	H	H

Gilead Exhibit 2023
PGR2023-00046 - Page 00192

*R^2 and R^{3b} joined together by $(CH_2)_3$ to form five-membered ring.

Table VI-45.

№	R^1	R^2	R^{3a}	R^{3b}	R^4	R^5	R^6	X	Y	R^7	R^8
VI-45-1	Ph	H	H	H	Bz	H	F	H	OH	H	H
VI-45-2	Ph	H	H	CH_3	Bz	H	F	H	OH	H	H
VI-45-3	Ph	H	H	$CH(CH_3)_2$	Bz	H	F	H	OH	H	H
VI-45-4	Ph	H	H	$CH_2CH(CH_3)_2$	Bz	H	F	H	OH	H	H
VI-45-5	Ph	H	H	CH_2Ph	Bz	H	F	H	OH	H	H
VI-45-6	Ph	H	H	CH_2-indol-3-yl	Bz	H	F	H	OH	H	H
VI-45-7	Ph	H	H	$CH_2CH_2SCH_3$	Bz	H	F	H	OH	H	H
VI-45-8	Ph	*	H	*	Bz	H	F	H	OH	H	H

*R^2 and R^{3b} joined together by $(CH_2)_3$ to form five-membered ring.

Table VI-46.

№	R^1	R^2	R^{3a}	R^{3b}	R^4	R^5	R^6	X	Y	R^7	R^8
VI-46-1	p-Me-Ph	H	H	H	Bz	H	F	H	OH	H	H
VI-46-2	p-Me-Ph	H	H	CH_3	Bz	H	F	H	OH	H	H
VI-46-3	p-Me-Ph	H	H	$CH(CH_3)_2$	Bz	H	F	H	OH	H	H
VI-46-4	p-Me-Ph	H	H	$CH_2CH(CH_3)_2$	Bz	H	F	H	OH	H	H
VI-46-5	p-Me-Ph	H	H	CH_2Ph	Bz	H	F	H	OH	H	H
VI-46-6	p-Me-Ph	H	H	CH_2-indol-3-yl	Bz	H	F	H	OH	H	H
VI-46-7	p-Me-Ph	H	H	$CH_2CH_2SCH_3$	Bz	H	F	H	OH	H	H
VI-46-8	p-Me-Ph	*	H	*	Bz	H	F	H	OH	H	H

*R^2 and R^{3b} joined together by $(CH_2)_3$ to form five-membered ring.

Table VI-47.

№	R^1	R^2	R^{3a}	R^{3b}	R^4	R^5	R^6	X	Y	R^7	R^8
VI-47-1	p-F-Ph	H	H	H	Bz	H	F	H	OH	H	H
VI-47-2	p-F-Ph	H	H	CH_3	Bz	H	F	H	OH	H	H
VI-47-3	p-F-Ph	H	H	$CH(CH_3)_2$	Bz	H	F	H	OH	H	H
VI-47-4	p-F-Ph	H	H	$CH_2CH(CH_3)_2$	Bz	H	F	H	OH	H	H
VI-47-5	p-F-Ph	H	H	CH_2Ph	Bz	H	F	H	OH	H	H
VI-47-6	p-F-Ph	H	H	CH_2-indol-3-yl	Bz	H	F	H	OH	H	H
VI-47-7	p-F-Ph	H	H	$CH_2CH_2SCH_3$	Bz	H	F	H	OH	H	H

Gilead Exhibit 2023
PGR2023-00046 - Page 00193

№	R^1	R^2	R^{3a}	R^{3b}	R^4	R^5	R^6	X	Y	R^7	R^8
VI-47-8	p-F-Ph	*	H	*	Bz	H	F	H	OH	H	H

*R^2 and R^{3b} joined together by $(CH_2)_3$ to form five-membered ring.

Table VI-48.

№	R^1	R^2	R^{3a}	R^{3b}	R^4	R^5	R^6	X	Y	R^7	R^8
VI-48-1	p-Cl-Ph	H	H	H	Bz	H	F	H	OH	H	H
VI-48-2	p-Cl-Ph	H	H	CH_3	Bz	H	F	H	OH	H	H
VI-48-3	p-Cl-Ph	H	H	$CH(CH_3)_2$	Bz	H	F	H	OH	H	H
VI-48-4	p-Cl-Ph	H	H	$CH_2CH(CH_3)_2$	Bz	H	F	H	OH	H	H
VI-48-5	p-Cl-Ph	H	H	CH_2Ph	Bz	H	F	H	OH	H	H
VI-48-6	p-Cl-Ph	H	H	CH_2-indol-3-yl	Bz	H	F	H	OH	H	H
VI-48-7	p-Cl-Ph	H	H	$CH_2CH_2SCH_3$	Bz	H	F	H	OH	H	H
VI-48-8	p-Cl-Ph	*	H	*	Bz	H	F	H	OH	H	H

*R^2 and R^{3b} joined together by $(CH_2)_3$ to form five-membered ring.

Table VI-49.

№	R^1	R^2	R^{3a}	R^{3b}	R^4	R^5	R^6	X	Y	R^7	R^8
VI-49-1	p-Br-Ph	H	H	H	Bz	H	F	H	OH	H	H
VI-49-2	p-Br-Ph	H	H	CH_3	Bz	H	F	H	OH	H	H
VI-49-3	p-Br-Ph	H	H	$CH(CH_3)_2$	Bz	H	F	H	OH	H	H
VI-49-4	p-Br-Ph	H	H	$CH_2CH(CH_3)_2$	Bz	H	F	H	OH	H	H
VI-49-5	p-Br-Ph	H	H	CH_2Ph	Bz	H	F	H	OH	H	H
VI-49-6	p-Br-Ph	H	H	CH_2-indol-3-yl	Bz	H	F	H	OH	H	H
VI-49-7	p-Br-Ph	H	H	$CH_2CH_2SCH_3$	Bz	H	F	H	OH	H	H
VI-49-8	p-Br-Ph	*	H	*	Bz	H	F	H	OH	H	H

*R^2 and R^{3b} joined together by $(CH_2)_3$ to form five-membered ring.

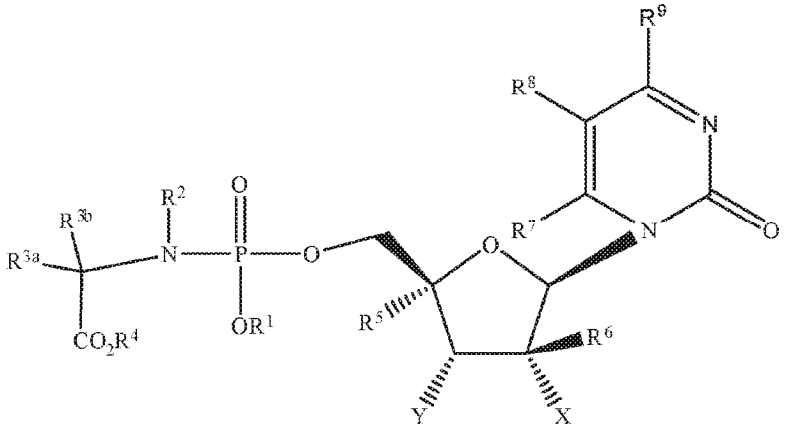
Table VI-50.

№	R^1	R^2	R^{3a}	R^{3b}	R^4	R^5	R^6	X	Y	R^7	R^8
VI-50-1	p-I-Ph	H	H	H	Bz	H	F	H	OH	H	H
VI-50-2	p-I-Ph	H	H	CH_3	Bz	H	F	H	OH	H	H
VI-50-3	p-I-Ph	H	H	$CH(CH_3)_2$	Bz	H	F	H	OH	H	H
VI-50-4	p-I-Ph	H	H	$CH_2CH(CH_3)_2$	Bz	H	F	H	OH	H	H
VI-50-5	p-I-Ph	H	H	CH_2Ph	Bz	H	F	H	OH	H	H

Gilead Exhibit 2023
PGR2023-00046 - Page 00194

№	R^1	R^2	R^{3a}	R^{3b}	R^4	R^5	R^6	X	Y	R^7	R^8
VI-50-6	p-I-Ph	H	H	CH_2-indol-3-yl	Bz	H	F	H	OH	H	H
VI-50-7	p-I-Ph	H	H	$CH_2CH_2SCH_3$	Bz	H	F	H	OH	H	H
VI-50-8	p-I-Ph	*	H	*	Bz	H	F	H	OH	H	H

*R^2 and R^{3b} joined together by $(CH_2)_3$ to form five-membered ring.



VII

Table VII-1.

№	R^1	R^2	R^{3a}	R^{3b}	R^4	R^5	R^6	X	Y	R^7	R^8	R^9
VII-1-1	CH_3	H	H	H	CH_3	H	F	H	OH	H	H	NH_2
VII-1-2	CH_3	H	H	CH_3	CH_3	H	F	H	OH	H	H	NH_2
VII-1-3	CH_3	H	H	$CH(CH_3)_2$	CH_3	H	F	H	OH	H	H	NH_2
VII-1-4	CH_3	H	H	$CH_2CH(CH_3)_2$	CH_3	H	F	H	OH	H	H	NH_2
VII-1-5	CH_3	H	H	CH_2Ph	CH_3	H	F	H	OH	H	H	NH_2
VII-1-6	CH_3	H	H	CH_2-indol-3-yl	CH_3	H	F	H	OH	H	H	NH_2
VII-1-7	CH_3	H	H	$CH_2CH_2SCH_3$	CH_3	H	F	H	OH	H	H	NH_2
VII-1-8	CH_3	*	H	*	CH_3	H	F	H	OH	H	H	NH_2

*R^2 and R^{3b} joined together by $(CH_2)_3$ to form five-membered ring.

Table VII-2.

№	R^1	R^2	R^{3a}	R^{3b}	R^4	R^5	R^6	X	Y	R^7	R^8	R^9
VII-2-1	Et	H	H	H	CH_3	H	F	H	OH	H	H	NH_2

Gilead Exhibit 2023
PGR2023-00046 - Page 00195

№	R^1	R^2	R^{3a}	R^{3b}	R^4	R^5	R^6	X	Y	R^7	R^8	R^9
VII-2-2	Et	H	H	CH_3	CH_3	H	F	H	OH	H	H	NH_2
VII-2-3	Et	H	H	$CH(CH_3)_2$	CH_3	H	F	H	OH	H	H	NH_2
VII-2-4	Et	H	H	$CH_2CH(CH_3)_2$	CH_3	H	F	H	OH	H	H	NH_2
VII-2-5	Et	H	H	CH_2Ph	CH_3	H	F	H	OH	H	H	NH_2
VII-2-6	Et	H	H	CH_2-indol-3-yl	CH_3	H	F	H	OH	H	H	NH_2
VII-2-7	Et	H	H	$CH_2CH_2SCH_3$	CH_3	H	F	H	OH	H	H	NH_2
VII-2-8	Et	*	H	*	CH_3	H	F	H	OH	H	H	NH_2

*R^2 and R^{3b} joined together by $(CH_2)_3$ to form five-membered ring.

Table VII-3.

№	R^1	R^2	R^{3a}	R^{3b}	R^4	R^5	R^6	X	Y	R^7	R^8	R^9
VII-3-1	^{i}Pr	H	H	H	CH_3	H	F	H	OH	H	H	NH_2
VII-3-2	^{i}Pr	H	H	CH_3	CH_3	H	F	H	OH	H	H	NH_2
VII-3-3	^{i}Pr	H	H	$CH(CH_3)_2$	CH_3	H	F	H	OH	H	H	NH_2
VII-3-4	^{i}Pr	H	H	$CH_2CH(CH_3)_2$	CH_3	H	F	H	OH	H	H	NH_2
VII-3-5	^{i}Pr	H	H	CH_2Ph	CH_3	H	F	H	OH	H	H	NH_2
VII-3-6	^{i}Pr	H	H	CH_2-indol-3-yl	CH_3	H	F	H	OH	H	H	NH_2
VII-3-7	^{i}Pr	H	H	$CH_2CH_2SCH_3$	CH_3	H	F	H	OH	H	H	NH_2
VII-3-8	^{i}Pr	*	H	*	CH_3	H	F	H	OH	H	H	NH_2

*R^2 and R^{3b} joined together by $(CH_2)_3$ to form five-membered ring.

Table VII-4.

№	R^1	R^2	R^{3a}	R^{3b}	R^4	R^5	R^6	X	Y	R^7	R^8	R^9
VII-4-1	^{t}Bu	H	H	H	CH_3	H	F	H	OH	H	H	NH_2
VII-4-2	^{t}Bu	H	H	CH_3	CH_3	H	F	H	OH	H	H	NH_2
VII-4-3	^{t}Bu	H	H	$CH(CH_3)_2$	CH_3	H	F	H	OH	H	H	NH_2
VII-4-4	^{t}Bu	H	H	$CH_2CH(CH_3)_2$	CH_3	H	F	H	OH	H	H	NH_2
VII-4-5	^{t}Bu	H	H	CH_2Ph	CH_3	H	F	H	OH	H	H	NH_2
VII-4-6	^{t}Bu	H	H	CH_2-indol-3-yl	CH_3	H	F	H	OH	H	H	NH_2
VII-4-7	^{t}Bu	H	H	$CH_2CH_2SCH_3$	CH_3	H	F	H	OH	H	H	NH_2
VII-4-8	^{t}Bu	*	H	*	CH_3	H	F	H	OH	H	H	NH_2

*R^2 and R^{3b} joined together by $(CH_2)_3$ to form five-membered ring.

Table VII-5.

Gilead Exhibit 2023
PGR2023-00046 - Page 00196

№	R^1	R^2	R^{3a}	R^{3b}	R^4	R^5	R^6	X	Y	R^7	R^8	R^9
VII-5-1	Ph	H	H	H	CH_3	H	F	H	OH	H	H	NH_2
VII-5-2	Ph	H	H	CH_3	CH_3	H	F	H	OH	H	H	NH_2
VII-5-3	Ph	H	H	$CH(CH_3)_2$	CH_3	H	F	H	OH	H	H	NH_2
VII-5-4	Ph	H	H	$CH_2CH(CH_3)_2$	CH_3	H	F	H	OH	H	H	NH_2
VII-5-5	Ph	H	H	CH_2Ph	CH_3	H	F	H	OH	H	H	NH_2
VII-5-6	Ph	H	H	CH_2-indol-3-yl	CH_3	H	F	H	OH	H	H	NH_2
VII-5-7	Ph	H	H	$CH_2CH_2SCH_3$	CH_3	H	F	H	OH	H	H	NH_2
VII-5-8	Ph	*	H	*	CH_3	H	F	H	OH	H	H	NH_2

*R^2 and R^{3b} joined together by $(CH_2)_3$ to form five-membered ring.

Table VII-6.

№	R^1	R^2	R^{3a}	R^{3b}	R^4	R^5	R^6	X	Y	R^7	R^8	R^9
VII-6-1	p-Me-Ph	H	H	H	CH_3	H	F	H	OH	H	H	NH_2
VII-6-2	p-Me-Ph	H	H	CH_3	CH_3	H	F	H	OH	H	H	NH_2
VII-6-3	p-Me-Ph	H	H	$CH(CH_3)_2$	CH_3	H	F	H	OH	H	H	NH_2
VII-6-4	p-Me-Ph	H	H	$CH_2CH(CH_3)_2$	CH_3	H	F	H	OH	H	H	NH_2
VII-6-5	p-Me-Ph	H	H	CH_2Ph	CH_3	H	F	H	OH	H	H	NH_2
VII-6-6	p-Me-Ph	H	H	CH_2-indol-3-yl	CH_3	H	F	H	OH	H	H	NH_2
VII-6-7	p-Me-Ph	H	H	$CH_2CH_2SCH_3$	CH_3	H	F	H	OH	H	H	NH_2
VII-6-8	p-Me-Ph	*	H	*	CH_3	H	F	H	OH	H	H	NH_2

*R^2 and R^{3b} joined together by $(CH_2)_3$ to form five-membered ring.

Table VII-7.

№	R^1	R^2	R^{3a}	R^{3b}	R^4	R^5	R^6	X	Y	R^7	R^8	R^9
VII-7-1	p-F-Ph	H	H	H	CH_3	H	F	H	OH	H	H	NH_2
VII-7-2	p-F-Ph	H	H	CH_3	CH_3	H	F	H	OH	H	H	NH_2
VII-7-3	p-F-Ph	H	H	$CH(CH_3)_2$	CH_3	H	F	H	OH	H	H	NH_2
VII-7-4	p-F-Ph	H	H	$CH_2CH(CH_3)_2$	CH_3	H	F	H	OH	H	H	NH_2
VII-7-6	p-F-Ph	H	H	CH_2Ph	CH_3	H	F	H	OH	H	H	NH_2
VII-7-7	p-F-Ph	H	H	CH_2-indol-3-yl	CH_3	H	F	H	OH	H	H	NH_2
VII-7-8	p-F-Ph	H	H	$CH_2CH_2SCH_3$	CH_3	H	F	H	OH	H	H	NH_2
VII-7-20	p-F-Ph	*	H	*	CH_3	H	F	H	OH	H	H	NH_2

*R^2 and R^{3b} joined together by $(CH_2)_3$ to form five-membered ring.

Gilead Exhibit 2023
PGR2023-00046 - Page 00197

Table VII-8.

№	R^1	R^2	R^{3a}	R^{3b}	R^4	R^5	R^6	X	Y	R^7	R^8	R^9
VII-8-1	p-Cl-Ph	H	H	H	CH_3	H	F	H	OH	H	H	NH_2
VII-8-2	p-Cl-Ph	H	H	CH_3	CH_3	H	F	H	OH	H	H	NH_2
VII-8-3	p-Cl-Ph	H	H	$CH(CH_3)_2$	CH_3	H	F	H	OH	H	H	NH_2
VII-8-4	p-Cl-Ph	H	H	$CH_2CH(CH_3)_2$	CH_3	H	F	H	OH	H	H	NH_2
VII-8-5	p-Cl-Ph	H	H	CH_2Ph	CH_3	H	F	H	OH	H	H	NH_2
VII-8-6	p-Cl-Ph	H	H	CH_2-indol-3-yl	CH_3	H	F	H	OH	H	H	NH_2
VII-8-7	p-Cl-Ph	H	H	$CH_2CH_2SCH_3$	CH_3	H	F	H	OH	H	H	NH_2
VII-8-8	p-Cl-Ph	*	H	*	CH_3	H	F	H	OH	H	H	NH_2

*R^2 and R^{3b} joined together by $(CH_2)_3$ to form five-membered ring.

Table VII-9.

№	R^1	R^2	R^{3a}	R^{3b}	R^4	R^5	R^6	X	Y	R^7	R^8	R^9
VII-9-1	p-Br-Ph	H	H	H	CH_3	H	F	H	OH	H	H	NH_2
VII-9-2	p-Br-Ph	H	H	CH_3	CH_3	H	F	H	OH	H	H	NH_2
VII-9-3	p-Br-Ph	H	H	$CH(CH_3)_2$	CH_3	H	F	H	OH	H	H	NH_2
VII-9-4	p-Br-Ph	H	H	$CH_2CH(CH_3)_2$	CH_3	H	F	H	OH	H	H	NH_2
VII-9-6	p-Br-Ph	H	H	CH_2Ph	CH_3	H	F	H	OH	H	H	NH_2
VII-9-7	p-Br-Ph	H	H	CH_2-indol-3-yl	CH_3	H	F	H	OH	H	H	NH_2
VII-9-8	p-Br-Ph	H	H	$CH_2CH_2SCH_3$	CH_3	H	F	H	OH	H	H	NH_2
VII-9-20	p-Br-Ph	*	H	*	CH_3	H	F	H	OH	H	H	NH_2

*R^2 and R^{3b} joined together by $(CH_2)_3$ to form five-membered ring.

Table VII-10.

№	R^1	R^2	R^{3a}	R^{3b}	R^4	R^5	R^6	X	Y	R^7	R^8	R^9
VII-10-1	p-I-Ph	H	H	H	CH_3	H	F	H	OH	H	H	NH_2
VII-10-2	p-I-Ph	H	H	CH_3	CH_3	H	F	H	OH	H	H	NH_2
VII-10-3	p-I-Ph	H	H	$CH(CH_3)_2$	CH_3	H	F	H	OH	H	H	NH_2
VII-10-4	p-I-Ph	H	H	$CH_2CH(CH_3)_2$	CH_3	H	F	H	OH	H	H	NH_2
VII-10-5	p-I-Ph	H	H	CH_2Ph	CH_3	H	F	H	OH	H	H	NH_2
VII-10-6	p-I-Ph	H	H	CH_2-indol-3-yl	CH_3	H	F	H	OH	H	H	NH_2
VII-10-7	p-I-Ph	H	H	$CH_2CH_2SCH_3$	CH_3	H	F	H	OH	H	H	NH_2
VII-10-8	p-I-Ph	*	H	*	CH_3	H	F	H	OH	H	H	NH_2

*R^2 and R^{3b} joined together by $(CH_2)_3$ to form five-membered ring.

Gilead Exhibit 2023
PGR2023-00046 - Page 00198

Table VII-11.

№	R^1	R^2	R^{3a}	R^{3b}	R^4	R^5	R^6	X	Y	R^7	R^8	R^9
VII-11-1	CH_3	H	H	H	Et	H	F	H	OH	H	H	NH_2
VII-11-2	CH_3	H	H	CH_3	Et	H	F	H	OH	H	H	NH_2
VII-11-3	CH_3	H	H	$CH(CH_3)_2$	Et	H	F	H	OH	H	H	NH_2
VII-11-4	CH_3	H	H	$CH_2CH(CH_3)_2$	Et	H	F	H	OH	H	H	NH_2
VII-11-5	CH_3	H	H	CH_2Ph	Et	H	F	H	OH	H	H	NH_2
VII-11-6	CH_3	H	H	CH_2-indol-3-yl	Et	H	F	H	OH	H	H	NH_2
VII-11-7	CH_3	H	H	$CH_2CH_2SCH_3$	Et	H	F	H	OH	H	H	NH_2
VII-11-8	CH_3	*	H	*	Et	H	F	H	OH	H	H	NH_2

*R^2 and R^{3b} joined together by $(CH_2)_3$ to form five-membered ring.

Table VII-12.

№	R^1	R^2	R^{3a}	R^{3b}	R^4	R^5	R^6	X	Y	R^7	R^8	R^9
VII-12-1	Et	H	H	H	Et	H	F	H	OH	H	H	NH_2
VII-12-2	Et	H	H	CH_3	Et	H	F	H	OH	H	H	NH_2
VII-12-3	Et	H	H	$CH(CH_3)_2$	Et	H	F	H	OH	H	H	NH_2
VII-12-4	Et	H	H	$CH_2CH(CH_3)_2$	Et	H	F	H	OH	H	H	NH_2
VII-12-5	Et	H	H	CH_2Ph	Et	H	F	H	OH	H	H	NH_2
VII-12-6	Et	H	H	CH_2-indol-3-yl	Et	H	F	H	OH	H	H	NH_2
VII-12-7	Et	H	H	$CH_2CH_2SCH_3$	Et	H	F	H	OH	H	H	NH_2
VII-12-8	Et	*	H	*	Et	H	F	H	OH	H	H	NH_2

*R^2 and R^{3b} joined together by $(CH_2)_3$ to form five-membered ring.

Table VII-13.

№	R^1	R^2	R^{3a}	R^{3b}	R^4	R^5	R^6	X	Y	R^7	R^8	R^9
VII-13-1	^iPr	H	H	H	Et	H	F	H	OH	H	H	NH_2
VII-13-2	^iPr	H	H	CH_3	Et	H	F	H	OH	H	H	NH_2
VII-13-3	^iPr	H	H	$CH(CH_3)_2$	Et	H	F	H	OH	H	H	NH_2
VII-13-4	^iPr	H	H	$CH_2CH(CH_3)_2$	Et	H	F	H	OH	H	H	NH_2
VII-13-5	^iPr	H	H	CH_2Ph	Et	H	F	H	OH	H	H	NH_2
VII-13-6	^iPr	H	H	CH_2-indol-3-yl	Et	H	F	H	OH	H	H	NH_2
VII-13-7	^iPr	H	H	$CH_2CH_2SCH_3$	Et	H	F	H	OH	H	H	NH_2
VII-13-8	^iPr	*	H	*	Et	H	F	H	OH	H	H	NH_2

*R^2 and R^{3b} joined together by $(CH_2)_3$ to form five-membered ring.

Gilead Exhibit 2023
PGR2023-00046 - Page 00199

Table VII-14.

№	R^1	R^2	R^{3a}	R^{3b}	R^4	R^5	R^6	X	Y	R^7	R^8	R^9
VII-14-1	^{t}Bu	H	H	H	Et	H	F	H	OH	H	H	NH_2
VII-14-2	^{t}Bu	H	H	CH_3	Et	H	F	H	OH	H	H	NH_2
VII-14-3	^{t}Bu	H	H	$CH(CH_3)_2$	Et	H	F	H	OH	H	H	NH_2
VII-14-4	^{t}Bu	H	H	$CH_2CH(CH_3)_2$	Et	H	F	H	OH	H	H	NH_2
VII-14-5	^{t}Bu	H	H	CH_2Ph	Et	H	F	H	OH	H	H	NH_2
VII-14-6	^{t}Bu	H	H	CH_2-indol-3-yl	Et	H	F	H	OH	H	H	NH_2
VII-14-7	^{t}Bu	H	H	$CH_2CH_2SCH_3$	Et	H	F	H	OH	H	H	NH_2
VII-14-8	^{t}Bu	*	H	*	Et	H	F	H	OH	H	H	NH_2

*R^2 and R^{3b} joined together by $(CH_2)_3$ to form five-membered ring.

Table VII-15.

№	R^1	R^2	R^{3a}	R^{3b}	R^4	R^5	R^6	X	Y	R^7	R^8	R^9
VII-15-1	Ph	H	H	H	Et	H	F	H	OH	H	H	NH_2
VII-15-2	Ph	H	H	CH_3	Et	H	F	H	OH	H	H	NH_2
VII-15-3	Ph	H	H	$CH(CH_3)_2$	Et	H	F	H	OH	H	H	NH_2
VII-15-4	Ph	H	H	$CH_2CH(CH_3)_2$	Et	H	F	H	OH	H	H	NH_2
VII-15-5	Ph	H	H	CH_2Ph	Et	H	F	H	OH	H	H	NH_2
VII-15-6	Ph	H	H	CH_2-indol-3-yl	Et	H	F	H	OH	H	H	NH_2
VII-15-7	Ph	H	H	$CH_2CH_2SCH_3$	Et	H	F	H	OH	H	H	NH_2
VII-15-8	Ph	*	H	*	Et	H	F	H	OH	H	H	NH_2

*R^2 and R^{3b} joined together by $(CH_2)_3$ to form five-membered ring.

Table VII-16.

№	R^1	R^2	R^{3a}	R^{3b}	R^4	R^5	R^6	X	Y	R^7	R^8	R^9

Gilead Exhibit 2023
PGR2023-00046 - Page 00200

№	R^1	R^2	R^{3a}	R^{3b}	R^4	R^5	R^6	X	Y	R^7	R^8	R^9
VII-16-1	p-Me-Ph	H	H	H	Et	H	F	H	OH	H	H	NH_2
VII-16-2	p-Me-Ph	H	H	CH_3	Et	H	F	H	OH	H	H	NH_2
VII-16-3	p-Me-Ph	H	H	$CH(CH_3)_2$	Et	H	F	H	OH	H	H	NH_2
VII-16-4	p-Me-Ph	H	H	$CH_2CH(CH_3)_2$	Et	H	F	H	OH	H	H	NH_2
VII-16-5	p-Me-Ph	H	H	CH_2Ph	Et	H	F	H	OH	H	H	NH_2
VII-16-6	p-Me-Ph	H	H	CH_2-indol-3-yl	Et	H	F	H	OH	H	H	NH_2
VII-16-7	p-Me-Ph	H	H	$CH_2CH_2SCH_3$	Et	H	F	H	OH	H	H	NH_2
VII-16-8	p-Me-Ph	*	H	*	Et	H	F	H	OH	H	H	NH_2

*R^2 and R^{3b} joined together by $(CH_2)_3$ to form five-membered ring.

Table VII-17.

№	R^1	R^2	R^{3a}	R^{3b}	R^4	R^5	R^6	X	Y	R^7	R^8	R^9
VII-17-1	p-F-Ph	H	H	H	Et	H	F	H	OH	H	H	NH_2
VII-17-2	p-F-Ph	H	H	CH_3	Et	H	F	H	OH	H	H	NH_2
VII-17-3	p-F-Ph	H	H	$CH(CH_3)_2$	Et	H	F	H	OH	H	H	NH_2
VII-17-4	p-F-Ph	H	H	$CH_2CH(CH_3)_2$	Et	H	F	H	OH	H	H	NH_2
VII-17-5	p-F-Ph	H	H	CH_2Ph	Et	H	F	H	OH	H	H	NH_2
VII-17-6	p-F-Ph	H	H	CH_2-indol-3-yl	Et	H	F	H	OH	H	H	NH_2
VII-17-7	p-F-Ph	H	H	$CH_2CH_2SCH_3$	Et	H	F	H	OH	H	H	NH_2
VII-17-8	p-F-Ph	*	H	*	Et	H	F	H	OH	H	H	NH_2

*R^2 and R^{3b} joined together by $(CH_2)_3$ to form five-membered ring.

Table VII-18.

№	R^1	R^2	R^{3a}	R^{3b}	R^4	R^5	R^6	X	Y	R^7	R^8	R^9
VII-18-1	p-Cl-Ph	H	H	H	Et	H	F	H	OH	H	H	NH_2
VII-18-2	p-Cl-Ph	H	H	CH_3	Et	H	F	H	OH	H	H	NH_2
VII-18-3	p-Cl-Ph	H	H	$CH(CH_3)_2$	Et	H	F	H	OH	H	H	NH_2
VII-18-4	p-Cl-Ph	H	H	$CH_2CH(CH_3)_2$	Et	H	F	H	OH	H	H	NH_2
VII-18-5	p-Cl-Ph	H	H	CH_2Ph	Et	H	F	H	OH	H	H	NH_2
VII-18-6	p-Cl-Ph	H	H	CH_2-indol-3-yl	Et	H	F	H	OH	H	H	NH_2
VII-18-7	p-Cl-Ph	H	H	$CH_2CH_2SCH_3$	Et	H	F	H	OH	H	H	NH_2
VII-18-8	p-Cl-Ph	*	H	*	Et	H	F	H	OH	H	H	NH_2

*R^2 and R^{3b} joined together by $(CH_2)_3$ to form five-membered ring.

Gilead Exhibit 2023
PGR2023-00046 - Page 00201

Table VII-19.

№	R^1	R^2	R^{3a}	R^{3b}	R^4	R^5	R^6	X	Y	R^7	R^8	R^9
VII-19-1	p-Br-Ph	H	H	H	Et	H	F	H	OH	H	H	NH_2
VII-19-2	p-Br-Ph	H	H	CH_3	Et	H	F	H	OH	H	H	NH_2
VII-19-3	p-Br-Ph	H	H	$CH(CH_3)_2$	Et	H	F	H	OH	H	H	NH_2
VII-19-4	p-Br-Ph	H	H	$CH_2CH(CH_3)_2$	Et	H	F	H	OH	H	H	NH_2
VII-19-5	p-Br-Ph	H	H	CH_2Ph	Et	H	F	H	OH	H	H	NH_2
VII-19-6	p-Br-Ph	H	H	CH_2-indol-3-yl	Et	H	F	H	OH	H	H	NH_2
VII-19-7	p-Br-Ph	H	H	$CH_2CH_2SCH_3$	Et	H	F	H	OH	H	H	NH_2
VII-19-8	p-Br-Ph	*	H	*	Et	H	F	H	OH	H	H	NH_2

*R^2 and R^{3b} joined together by $(CH_2)_3$ to form five-membered ring.

Table VII-20.

№	R^1	R^2	R^{3a}	R^{3b}	R^4	R^5	R^6	X	Y	R^7	R^8	R^9
VII-20-1	p-I-Ph	H	H	H	Et	H	F	H	OH	H	H	NH_2
VII-20-2	p-I-Ph	H	H	CH_3	Et	H	F	H	OH	H	H	NH_2
VII-20-3	p-I-Ph	H	H	$CH(CH_3)_2$	Et	H	F	H	OH	H	H	NH_2
VII-20-4	p-I-Ph	H	H	$CH_2CH(CH_3)_2$	Et	H	F	H	OH	H	H	NH_2
VII-20-5	p-I-Ph	H	H	CH_2Ph	Et	H	F	H	OH	H	H	NH_2
VII-20-6	p-I-Ph	H	H	CH_2-indol-3-yl	Et	H	F	H	OH	H	H	NH_2
VII-20-7	p-I-Ph	H	H	$CH_2CH_2SCH_3$	Et	H	F	H	OH	H	H	NH_2
VII-20-8	p-I-Ph	*	H	*	Et	H	F	H	OH	H	H	NH_2

*R^2 and R^{3b} joined together by $(CH_2)_3$ to form five-membered ring.

Table VII-21.

№	R^1	R^2	R^{3a}	R^{3b}	R^4	R^5	R^6	X	Y	R^7	R^8	R^9
VII-21-1	CH_3	H	H	H	^{i}Pr	H	F	H	OH	H	H	NH_2
VII-21-2	CH_3	H	H	CH_3	^{i}Pr	H	F	H	OH	H	H	NH_2
VII-21-3	CH_3	H	H	$CH(CH_3)_2$	^{i}Pr	H	F	H	OH	H	H	NH_2
VII-21-4	CH_3	H	H	$CH_2CH(CH_3)_2$	^{i}Pr	H	F	H	OH	H	H	NH_2
VII-21-5	CH_3	H	H	CH_2Ph	^{i}Pr	H	F	H	OH	H	H	NH_2
VII-21-6	CH_3	H	H	CH_2-indol-3-yl	^{i}Pr	H	F	H	OH	H	H	NH_2
VII-21-7	CH_3	H	H	$CH_2CH_2SCH_3$	^{i}Pr	H	F	H	OH	H	H	NH_2
VII-21-8	CH_3	*	H	*	^{i}Pr	H	F	H	OH	H	H	NH_2

*R^2 and R^{3b} joined together by $(CH_2)_3$ to form five-membered ring.

Gilead Exhibit 2023
PGR2023-00046 - Page 00202

Table VII-22.

№	R^1	R^2	R^{3a}	R^{3b}	R^4	R^5	R^6	X	Y	R^7	R^8	R^9
VII-22-1	Et	H	H	H	^{i}Pr	H	F	H	OH	H	H	NH_2
VII-22-2	Et	H	H	CH_3	^{i}Pr	H	F	H	OH	H	H	NH_2
VII-22-3	Et	H	H	$CH(CH_3)_2$	^{i}Pr	H	F	H	OH	H	H	NH_2
VII-22-4	Et	H	H	$CH_2CH(CH_3)_2$	^{i}Pr	H	F	H	OH	H	H	NH_2
VII-22-5	Et	H	H	CH_2Ph	^{i}Pr	H	F	H	OH	H	H	NH_2
VII-22-6	Et	H	H	CH_2-indol-3-yl	^{i}Pr	H	F	H	OH	H	H	NH_2
VII-22-7	Et	H	H	$CH_2CH_2SCH_3$	^{i}Pr	H	F	H	OH	H	H	NH_2
VII-22-8	Et	*	H	*	^{i}Pr	H	F	H	OH	H	H	NH_2

*R^2 and R^{3b} joined together by $(CH_2)_3$ to form five-membered ring.

Table VII-23.

№	R^1	R^2	R^{3a}	R^{3b}	R^4	R^5	R^6	X	Y	R^7	R^8	R^9
VII-23-1	^{i}Pr	H	H	H	^{i}Pr	H	F	H	OH	H	H	NH_2
VII-23-2	^{i}Pr	H	H	CH_3	^{i}Pr	H	F	H	OH	H	H	NH_2
VII-23-3	^{i}Pr	H	H	$CH(CH_3)_2$	^{i}Pr	H	F	H	OH	H	H	NH_2
VII-23-4	^{i}Pr	H	H	$CH_2CH(CH_3)_2$	^{i}Pr	H	F	H	OH	H	H	NH_2
VII-23-5	^{i}Pr	H	H	CH_2Ph	^{i}Pr	H	F	H	OH	H	H	NH_2
VII-23-6	^{i}Pr	H	H	CH_2-indol-3-yl	^{i}Pr	H	F	H	OH	H	H	NH_2
VII-23-7	^{i}Pr	H	H	$CH_2CH_2SCH_3$	^{i}Pr	H	F	H	OH	H	H	NH_2
VII-23-8	^{i}Pr	*	H	*	^{i}Pr	H	F	H	OH	H	H	NH_2

*R^2 and R^{3b} joined together by $(CH_2)_3$ to form five-membered ring.

Table VII-24.

№	R^1	R^2	R^{3a}	R^{3b}	R^4	R^5	R^6	X	Y	R^7	R^8	R^9
VII-24-1	^{t}Bu	H	H	H	^{i}Pr	H	F	H	OH	H	H	NH_2
VII-24-2	^{t}Bu	H	H	CH_3	^{i}Pr	H	F	H	OH	H	H	NH_2
VII-24-3	^{t}Bu	H	H	$CH(CH_3)_2$	^{i}Pr	H	F	H	OH	H	H	NH_2
VII-24-4	^{t}Bu	H	H	$CH_2CH(CH_3)_2$	^{i}Pr	H	F	H	OH	H	H	NH_2
VII-24-5	^{t}Bu	H	H	CH_2Ph	^{i}Pr	H	F	H	OH	H	H	NH_2
VII-24-6	^{t}Bu	H	H	CH_2-indol-3-yl	^{i}Pr	H	F	H	OH	H	H	NH_2
VII-24-7	^{t}Bu	H	H	$CH_2CH_2SCH_3$	^{i}Pr	H	F	H	OH	H	H	NH_2
VII-24-8	^{t}Bu	*	H	*	^{i}Pr	H	F	H	OH	H	H	NH_2

*R^2 and R^{3b} joined together by $(CH_2)_3$ to form five-membered ring.

Gilead Exhibit 2023
PGR2023-00046 - Page 00203

Table VII-25.

№	R^1	R^2	R^{3a}	R^{3b}	R^4	R^5	R^6	X	Y	R^7	R^8	R^9
VII-25-1	Ph	H	H	H	^{i}Pr	H	F	H	OH	H	H	NH_2
VII-25-2	Ph	H	H	CH_3	^{i}Pr	H	F	H	OH	H	H	NH_2
VII-25-3	Ph	H	H	$CH(CH_3)_2$	^{i}Pr	H	F	H	OH	H	H	NH_2
VII-25-4	Ph	H	H	$CH_2CH(CH_3)_2$	^{i}Pr	H	F	H	OH	H	H	NH_2
VII-25-5	Ph	H	H	CH_2Ph	^{i}Pr	H	F	H	OH	H	H	NH_2
VII-25-6	Ph	H	H	CH_2-indol-3-yl	^{i}Pr	H	F	H	OH	H	H	NH_2
VII-25-7	Ph	H	H	$CH_2CH_2SCH_3$	^{i}Pr	H	F	H	OH	H	H	NH_2
VII-25-8	Ph	*	H	*	^{i}Pr	H	F	H	OH	H	H	NH_2

*R^2 and R^{3b} joined together by $(CH_2)_3$ to form five-membered ring.

Table VII-26.

№	R^1	R^2	R^{3a}	R^{3b}	R^4	R^5	R^6	X	Y	R^7	R^8	R^9
VII-26-1	p-Me-Ph	H	H	H	^{i}Pr	H	F	H	OH	H	H	NH_2
VII-26-2	p-Me-Ph	H	H	CH_3	^{i}Pr	H	F	H	OH	H	H	NH_2
VII-26-3	p-Me-Ph	H	H	$CH(CH_3)_2$	^{i}Pr	H	F	H	OH	H	H	NH_2
VII-26-4	p-Me-Ph	H	H	$CH_2CH(CH_3)_2$	^{i}Pr	H	F	H	OH	H	H	NH_2
VII-26-5	p-Me-Ph	H	H	CH_2Ph	^{i}Pr	H	F	H	OH	H	H	NH_2
VII-26-6	p-Me-Ph	H	H	CH_2-indol-3-yl	^{i}Pr	H	F	H	OH	H	H	NH_2
VII-26-7	p-Me-Ph	H	H	$CH_2CH_2SCH_3$	^{i}Pr	H	F	H	OH	H	H	NH_2
VII-26-8	p-Me-Ph	*	H	*	^{i}Pr	H	F	H	OH	H	H	NH_2

*R^2 and R^{3b} joined together by $(CH_2)_3$ to form five-membered ring.

Table VII-27.

№	R^1	R^2	R^{3a}	R^{3b}	R^4	R^5	R^6	X	Y	R^7	R^8	R^9
VII-27-1	p-F-Ph	H	H	H	^{i}Pr	H	F	H	OH	H	H	NH_2
VII-27-2	p-F-Ph	H	H	CH_3	^{i}Pr	H	F	H	OH	H	H	NH_2
VII-27-3	p-F-Ph	H	H	$CH(CH_3)_2$	^{i}Pr	H	F	H	OH	H	H	NH_2
VII-27-4	p-F-Ph	H	H	$CH_2CH(CH_3)_2$	^{i}Pr	H	F	H	OH	H	H	NH_2
VII-27-5	p-F-Ph	H	H	CH_2Ph	^{i}Pr	H	F	H	OH	H	H	NH_2
VII-27-6	p-F-Ph	H	H	CH_2-indol-3-yl	^{i}Pr	H	F	H	OH	H	H	NH_2
VII-27-7	p-F-Ph	H	H	$CH_2CH_2SCH_3$	^{i}Pr	H	F	H	OH	H	H	NH_2
VII-27-8	p-F-Ph	*	H	*	^{i}Pr	H	F	H	OH	H	H	NH_2

*R^2 and R^{3b} joined together by $(CH_2)_3$ to form five-membered ring.

Gilead Exhibit 2023
PGR2023-00046 - Page 00204

Table VII-28.

№	R^1	R^2	R^{3a}	R^{3b}	R^4	R^5	R^6	X	Y	R^7	R^8	R^9
VII-28-1	p-Cl-Ph	H	H	H	^{i}Pr	H	F	H	OH	H	H	NH_2
VII-28-2	p-Cl-Ph	H	H	CH_3	^{i}Pr	H	F	H	OH	H	H	NH_2
VII-28-3	p-Cl-Ph	H	H	$CH(CH_3)_2$	^{i}Pr	H	F	H	OH	H	H	NH_2
VII-28-4	p-Cl-Ph	H	H	$CH_2CH(CH_3)_2$	^{i}Pr	H	F	H	OH	H	H	NH_2
VII-28-5	p-Cl-Ph	H	H	CH_2Ph	^{i}Pr	H	F	H	OH	H	H	NH_2
VII-28-6	p-Cl-Ph	H	H	CH_2-indol-3-yl	^{i}Pr	H	F	H	OH	H	H	NH_2
VII-28-7	p-Cl-Ph	H	H	$CH_2CH_2SCH_3$	^{i}Pr	H	F	H	OH	H	H	NH_2
VII-28-8	p-Cl-Ph	*	H	*	^{i}Pr	H	F	H	OH	H	H	NH_2

*R^2 and R^{3b} joined together by $(CH_2)_3$ to form five-membered ring.

Table VII-29.

№	R^1	R^2	R^{3a}	R^{3b}	R^4	R^5	R^6	X	Y	R^7	R^8	R^9
VII-29-1	p-Br-Ph	H	H	H	^{i}Pr	H	F	H	OH	H	H	NH_2
VII-29-2	p-Br-Ph	H	H	CH_3	^{i}Pr	H	F	H	OH	H	H	NH_2
VII-29-3	p-Br-Ph	H	H	$CH(CH_3)_2$	^{i}Pr	H	F	H	OH	H	H	NH_2
VII-29-4	p-Br-Ph	H	H	$CH_2CH(CH_3)_2$	^{i}Pr	H	F	H	OH	H	H	NH_2
VII-29-5	p-Br-Ph	H	H	CH_2Ph	^{i}Pr	H	F	H	OH	H	H	NH_2
VII-29-6	p-Br-Ph	H	H	CH_2-indol-3-yl	^{i}Pr	H	F	H	OH	H	H	NH_2
VII-29-7	p-Br-Ph	H	H	$CH_2CH_2SCH_3$	^{i}Pr	H	F	H	OH	H	H	NH_2
VII-29-8	p-Br-Ph	*	H	*	^{i}Pr	H	F	H	OH	H	H	NH_2

*R^2 and R^{3b} joined together by $(CH_2)_3$ to form five-membered ring.

Table VII-30.

№	R^1	R^2	R^{3a}	R^{3b}	R^4	R^5	R^6	X	Y	R^7	R^8	R^9
VII-30-1	p-I-Ph	H	H	H	^{i}Pr	H	F	H	OH	H	H	NH_2
VII-30-2	p-I-Ph	H	H	CH_3	^{i}Pr	H	F	H	OH	H	H	NH_2
VII-30-3	p-I-Ph	H	H	$CH(CH_3)_2$	^{i}Pr	H	F	H	OH	H	H	NH_2
VII-30-4	p-I-Ph	H	H	$CH_2CH(CH_3)_2$	^{i}Pr	H	F	H	OH	H	H	NH_2
VII-30-5	p-I-Ph	H	H	CH_2Ph	^{i}Pr	H	F	H	OH	H	H	NH_2
VII-30-6	p-I-Ph	H	H	CH_2-indol-3-yl	^{i}Pr	H	F	H	OH	H	H	NH_2
VII-30-7	p-I-Ph	H	H	$CH_2CH_2SCH_3$	^{i}Pr	H	F	H	OH	H	H	NH_2
VII-30-8	p-I-Ph	*	H	*	^{i}Pr	H	F	H	OH	H	H	NH_2

*R^2 and R^{3b} joined together by $(CH_2)_3$ to form five-membered ring.

Gilead Exhibit 2023
PGR2023-00046 - Page 00205

Table VII-31.

№	R^1	R^2	R^{3a}	R^{3b}	R^4	R^5	R^6	X	Y	R^7	R^8	R^9
VII-31-1	CH_3	H	H	H	^{n}Bu	H	F	H	OH	H	H	NH_2
VII-31-2	CH_3	H	H	CH_3	^{n}Bu	H	F	H	OH	H	H	NH_2
VII-31-3	CH_3	H	H	$CH(CH_3)_2$	^{n}Bu	H	F	H	OH	H	H	NH_2
VII-31-4	CH_3	H	H	$CH_2CH(CH_3)_2$	^{n}Bu	H	F	H	OH	H	H	NH_2
VII-31-5	CH_3	H	H	CH_2Ph	^{n}Bu	H	F	H	OH	H	H	NH_2
VII-31-6	CH_3	H	H	CH_2-indol-3-yl	^{n}Bu	H	F	H	OH	H	H	NH_2
VII-31-7	CH_3	H	H	$CH_2CH_2SCH_3$	^{n}Bu	H	F	H	OH	H	H	NH_2
VII-31-8	CH_3	*	H	*	^{n}Bu	H	F	H	OH	H	H	NH_2

*R^2 and R^{3b} joined together by $(CH_2)_3$ to form five-membered ring.

Table VII-32.

№	R^1	R^2	R^{3a}	R^{3b}	R^4	R^5	R^6	X	Y	R^7	R^8	R^9
VII-32-1	Et	H	H	H	^{n}Bu	H	F	H	OH	H	H	NH_2
VII-32-2	Et	H	H	CH_3	^{n}Bu	H	F	H	OH	H	H	NH_2
VII-32-3	Et	H	H	$CH(CH_3)_2$	^{n}Bu	H	F	H	OH	H	H	NH_2
VII-32-4	Et	H	H	$CH_2CH(CH_3)_2$	^{n}Bu	H	F	H	OH	H	H	NH_2
VII-32-5	Et	H	H	CH_2Ph	^{n}Bu	H	F	H	OH	H	H	NH_2
VII-32-6	Et	H	H	CH_2-indol-3-yl	^{n}Bu	H	F	H	OH	H	H	NH_2
VII-32-7	Et	H	H	$CH_2CH_2SCH_3$	^{n}Bu	H	F	H	OH	H	H	NH_2
VII-32-8	Et	*	H	*	^{n}Bu	H	F	H	OH	H	H	NH_2

*R^2 and R^{3b} joined together by $(CH_2)_3$ to form five-membered ring.

Table VII-33.

№	R^1	R^2	R^{3a}	R^{3b}	R^4	R^5	R^6	X	Y	R^7	R^8	R^9
VII-33-1	^{i}Pr	H	H	H	^{n}Bu	H	F	H	OH	H	H	NH_2
VII-33-2	^{i}Pr	H	H	CH_3	^{n}Bu	H	F	H	OH	H	H	NH_2
VII-33-3	^{i}Pr	H	H	$CH(CH_3)_2$	^{n}Bu	H	F	H	OH	H	H	NH_2
VII-33-4	^{i}Pr	H	H	$CH_2CH(CH_3)_2$	^{n}Bu	H	F	H	OH	H	H	NH_2
VII-33-5	^{i}Pr	H	H	CH_2Ph	^{n}Bu	H	F	H	OH	H	H	NH_2
VII-33-6	^{i}Pr	H	H	CH_2-indol-3-yl	^{n}Bu	H	F	H	OH	H	H	NH_2
VII-33-7	^{i}Pr	H	H	$CH_2CH_2SCH_3$	^{n}Bu	H	F	H	OH	H	H	NH_2
VII-33-8	^{i}Pr	*	H	*	^{n}Bu	H	F	H	OH	H	H	NH_2

*R^2 and R^{3b} joined together by $(CH_2)_3$ to form five-membered ring.

Gilead Exhibit 2023
PGR2023-00046 - Page 00206

Table VII-34.

№	R^1	R^2	R^{3a}	R^{3b}	R^4	R^5	R^6	X	Y	R^7	R^8	R^9
VII-34-1	^{t}Bu	H	H	H	^{n}Bu	H	F	H	OH	H	H	NH_2
VII-34-2	^{t}Bu	H	H	CH_3	^{n}Bu	H	F	H	OH	H	H	NH_2
VII-34-3	^{t}Bu	H	H	$CH(CH_3)_2$	^{n}Bu	H	F	H	OH	H	H	NH_2
VII-34-4	^{t}Bu	H	H	$CH_2CH(CH_3)_2$	^{n}Bu	H	F	H	OH	H	H	NH_2
VII-34-5	^{t}Bu	H	H	CH_2Ph	^{n}Bu	H	F	H	OH	H	H	NH_2
VII-34-6	^{t}Bu	H	H	CH_2-indol-3-yl	^{n}Bu	H	F	H	OH	H	H	NH_2
VII-34-7	^{t}Bu	H	H	$CH_2CH_2SCH_3$	^{n}Bu	H	F	H	OH	H	H	NH_2
VII-34-8	^{t}Bu	*	H	*	^{n}Bu	H	F	H	OH	H	H	NH_2

*R^2 and R^{3b} joined together by $(CH_2)_3$ to form five-membered ring.

Table VII-35.

№	R^1	R^2	R^{3a}	R^{3b}	R^4	R^5	R^6	X	Y	R^7	R^8	R^9
VII-35-1	Ph	H	H	H	^{n}Bu	H	F	H	OH	H	H	NH_2
VII-35-2	Ph	H	H	CH_3	^{n}Bu	H	F	H	OH	H	H	NH_2
VII-35-3	Ph	H	H	$CH(CH_3)_2$	^{n}Bu	H	F	H	OH	H	H	NH_2
VII-35-4	Ph	H	H	$CH_2CH(CH_3)_2$	^{n}Bu	H	F	H	OH	H	H	NH_2
VII-35-5	Ph	H	H	CH_2Ph	^{n}Bu	H	F	H	OH	H	H	NH_2
VII-35-6	Ph	H	H	CH_2-indol-3-yl	^{n}Bu	H	F	H	OH	H	H	NH_2
VII-35-7	Ph	H	H	$CH_2CH_2SCH_3$	^{n}Bu	H	F	H	OH	H	H	NH_2
VII-35-8	Ph	*	H	*	^{n}Bu	H	F	H	OH	H	H	NH_2

*R^2 and R^{3b} joined together by $(CH_2)_3$ to form five-membered ring.

Table VII-36.

№	R^1	R^2	R^{3a}	R^{3b}	R^4	R^5	R^6	X	Y	R^7	R^8	R^9
VII-36-1	p-Me-Ph	H	H	H	^{n}Bu	H	F	H	OH	H	H	NH_2
VII-36-2	p-Me-Ph	H	H	CH_3	^{n}Bu	H	F	H	OH	H	H	NH_2
VII-36-3	p-Me-Ph	H	H	$CH(CH_3)_2$	^{n}Bu	H	F	H	OH	H	H	NH_2
VII-36-4	p-Me-Ph	H	H	$CH_2CH(CH_3)_2$	^{n}Bu	H	F	H	OH	H	H	NH_2
VII-36-5	p-Me-Ph	H	H	CH_2Ph	^{n}Bu	H	F	H	OH	H	H	NH_2
VII-36-6	p-Me-Ph	H	H	CH_2-indol-3-yl	^{n}Bu	H	F	H	OH	H	H	NH_2
VII-36-7	p-Me-Ph	H	H	$CH_2CH_2SCH_3$	^{n}Bu	H	F	H	OH	H	H	NH_2
VII-36-8	p-Me-Ph	*	H	*	^{n}Bu	H	F	H	OH	H	H	NH_2

*R^2 and R^{3b} joined together by $(CH_2)_3$ to form five-membered ring.

Gilead Exhibit 2023
PGR2023-00046 - Page 00207

Table VII-37.

№	R^1	R^2	R^{3a}	R^{3b}	R^4	R^5	R^6	X	Y	R^7	R^8	R^9
VII-37-1	p-F-Ph	H	H	H	^{n}Bu	H	F	H	OH	H	H	NH_2
VII-37-2	p-F-Ph	H	H	CH_3	^{n}Bu	H	F	H	OH	H	H	NH_2
VII-37-3	p-F-Ph	H	H	$CH(CH_3)_2$	^{n}Bu	H	F	H	OH	H	H	NH_2
VII-37-4	p-F-Ph	H	H	$CH_2CH(CH_3)_2$	^{n}Bu	H	F	H	OH	H	H	NH_2
VII-37-5	p-F-Ph	H	H	CH_2Ph	^{n}Bu	H	F	H	OH	H	H	NH_2
VII-37-6	p-F-Ph	H	H	CH_2-indol-3-yl	^{n}Bu	H	F	H	OH	H	H	NH_2
VII-37-7	p-F-Ph	H	H	$CH_2CH_2SCH_3$	^{n}Bu	H	F	H	OH	H	H	NH_2
VII-37-8	p-F-Ph	*	H	*	^{n}Bu	H	F	H	OH	H	H	NH_2

*R^2 and R^{3b} joined together by $(CH_2)_3$ to form five-membered ring.

Table VII-38.

№	R^1	R^2	R^{3a}	R^{3b}	R^4	R^5	R^6	X	Y	R^7	R^8	R^9
VII-38-1	p-Cl-Ph	H	H	H	^{n}Bu	H	F	H	OH	H	H	NH_2
VII-38-2	p-Cl-Ph	H	H	CH_3	^{n}Bu	H	F	H	OH	H	H	NH_2
VII-38-3	p-Cl-Ph	H	H	$CH(CH_3)_2$	^{n}Bu	H	F	H	OH	H	H	NH_2
VII-38-4	p-Cl-Ph	H	H	$CH_2CH(CH_3)_2$	^{n}Bu	H	F	H	OH	H	H	NH_2
VII-38-5	p-Cl-Ph	H	H	CH_2Ph	^{n}Bu	H	F	H	OH	H	H	NH_2
VII-38-6	p-Cl-Ph	H	H	CH_2-indol-3-yl	^{n}Bu	H	F	H	OH	H	H	NH_2
VII-38-7	p-Cl-Ph	H	H	$CH_2CH_2SCH_3$	^{n}Bu	H	F	H	OH	H	H	NH_2
VII-38-8	p-Cl-Ph	*	H	*	^{n}Bu	H	F	H	OH	H	H	NH_2

*R^2 and R^{3b} joined together by $(CH_2)_3$ to form five-membered ring.

Table VII-39.

№	R^1	R^2	R^{3a}	R^{3b}	R^4	R^5	R^6	X	Y	R^7	R^8	R^9
VII-39-1	p-Br-Ph	H	H	H	^{n}Bu	H	F	H	OH	H	H	NH_2
VII-39-2	p-Br-Ph	H	H	CH_3	^{n}Bu	H	F	H	OH	H	H	NH_2
VII-39-3	p-Br-Ph	H	H	$CH(CH_3)_2$	^{n}Bu	H	F	H	OH	H	H	NH_2
VII-39-4	p-Br-Ph	H	H	$CH_2CH(CH_3)_2$	^{n}Bu	H	F	H	OH	H	H	NH_2
VII-39-5	p-Br-Ph	H	H	CH_2Ph	^{n}Bu	H	F	H	OH	H	H	NH_2
VII-39-6	p-Br-Ph	H	H	CH_2-indol-3-yl	^{n}Bu	H	F	H	OH	H	H	NH_2
VII-39-7	p-Br-Ph	H	H	$CH_2CH_2SCH_3$	^{n}Bu	H	F	H	OH	H	H	NH_2
VII-39-8	p-Br-Ph	*	H	*	^{n}Bu	H	F	H	OH	H	H	NH_2

*R^2 and R^{3b} joined together by $(CH_2)_3$ to form five-membered ring.

Gilead Exhibit 2023
PGR2023-00046 - Page 00208

Table VII-40.

№	R^1	R^2	R^{3a}	R^{3b}	R^4	R^5	R^6	X	Y	R^7	R^8	R^9
VII-40-1	p-I-Ph	H	H	H	^{n}Bu	H	F	H	OH	H	H	NH_2
VII-40-2	p-I-Ph	H	H	CH_3	^{n}Bu	H	F	H	OH	H	H	NH_2
VII-40-3	p-I-Ph	H	H	$CH(CH_3)_2$	^{n}Bu	H	F	H	OH	H	H	NH_2
VII-40-4	p-I-Ph	H	H	$CH_2CH(CH_3)_2$	^{n}Bu	H	F	H	OH	H	H	NH_2
VII-40-5	p-I-Ph	H	H	CH_2Ph	^{n}Bu	H	F	H	OH	H	H	NH_2
VII-40-6	p-I-Ph	H	H	CH_2-indol-3-yl	^{n}Bu	H	F	H	OH	H	H	NH_2
VII-40-7	p-I-Ph	H	H	$CH_2CH_2SCH_3$	^{n}Bu	H	F	H	OH	H	H	NH_2
VII-40-8	p-I-Ph	*	H	*	^{n}Bu	H	F	H	OH	H	H	NH_2

*R^2 and R^{3b} joined together by $(CH_2)_3$ to form five-membered ring.

Table VII-41.

№	R^1	R^2	R^{3a}	R^{3b}	R^4	R^5	R^6	X	Y	R^7	R^8	R^9
VII-41-1	CH_3	H	H	H	Bz	H	F	H	OH	H	H	NH_2
VII-41-2	CH_3	H	H	CH_3	Bz	H	F	H	OH	H	H	NH_2
VII-41-3	CH_3	H	H	$CH(CH_3)_2$	Bz	H	F	H	OH	H	H	NH_2
VII-41-4	CH_3	H	H	$CH_2CH(CH_3)_2$	Bz	H	F	H	OH	H	H	NH_2
VII-41-5	CH_3	H	H	CH_2Ph	Bz	H	F	H	OH	H	H	NH_2
VII-41-6	CH_3	H	H	CH_2-indol-3-yl	Bz	H	F	H	OH	H	H	NH_2
VII-41-7	CH_3	H	H	$CH_2CH_2SCH_3$	Bz	H	F	H	OH	H	H	NH_2
VII-41-8	CH_3	*	H	*	Bz	H	F	H	OH	H	H	NH_2

*R^2 and R^{3b} joined together by $(CH_2)_3$ to form five-membered ring.

Table VII-42.

№	R^1	R^2	R^{3a}	R^{3b}	R^4	R^5	R^6	X	Y	R^7	R^8	R^9
VII-42-1	Et	H	H	H	Bz	H	F	H	OH	H	H	NH_2
VII-42-2	Et	H	H	CH_3	Bz	H	F	H	OH	H	H	NH_2
VII-42-3	Et	H	H	$CH(CH_3)_2$	Bz	H	F	H	OH	H	H	NH_2
VII-42-4	Et	H	H	$CH_2CH(CH_3)_2$	Bz	H	F	H	OH	H	H	NH_2
VII-42-5	Et	H	H	CH_2Ph	Bz	H	F	H	OH	H	H	NH_2
VII-42-6	Et	H	H	CH_2-indol-3-yl	Bz	H	F	H	OH	H	H	NH_2
VII-42-7	Et	H	H	$CH_2CH_2SCH_3$	Bz	H	F	H	OH	H	H	NH_2
VII-42-8	Et	*	H	*	Bz	H	F	H	OH	H	H	NH_2

*R^2 and R^{3b} joined together by $(CH_2)_3$ to form five-membered ring.

Gilead Exhibit 2023
PGR2023-00046 - Page 00209

Table VII-43.

№	R^1	R^2	R^{3a}	R^{3b}	R^4	R^5	R^6	X	Y	R^7	R^8	R^9
VII-43-1	^{i}Pr	H	H	H	Bz	H	F	H	OH	H	H	NH_2
VII-43-2	^{i}Pr	H	H	CH_3	Bz	H	F	H	OH	H	H	NH_2
VII-43-3	^{i}Pr	H	H	$CH(CH_3)_2$	Bz	H	F	H	OH	H	H	NH_2
VII-43-4	^{i}Pr	H	H	$CH_2CH(CH_3)_2$	Bz	H	F	H	OH	H	H	NH_2
VII-43-5	^{i}Pr	H	H	CH_2Ph	Bz	H	F	H	OH	H	H	NH_2
VII-43-6	^{i}Pr	H	H	CH_2-indol-3-yl	Bz	H	F	H	OH	H	H	NH_2
VII-43-7	^{i}Pr	H	H	$CH_2CH_2SCH_3$	Bz	H	F	H	OH	H	H	NH_2
VII-43-8	^{i}Pr	*	H	*	Bz	H	F	H	OH	H	H	NH_2

*R^2 and R^{3b} joined together by $(CH_2)_3$ to form five-membered ring.

Table VII-44.

№	R^1	R^2	R^{3a}	R^{3b}	R^4	R^5	R^6	X	Y	R^7	R^8	R^9
VII-44-1	^{t}Bu	H	H	H	Bz	H	F	H	OH	H	H	NH_2
VII-44-2	^{t}Bu	H	H	CH_3	Bz	H	F	H	OH	H	H	NH_2
VII-44-3	^{t}Bu	H	H	$CH(CH_3)_2$	Bz	H	F	H	OH	H	H	NH_2
VII-44-4	^{t}Bu	H	H	$CH_2CH(CH_3)_2$	Bz	H	F	H	OH	H	H	NH_2
VII-44-5	^{t}Bu	H	H	CH_2Ph	Bz	H	F	H	OH	H	H	NH_2
VII-44-6	^{t}Bu	H	H	CH_2-indol-3-yl	Bz	H	F	H	OH	H	H	NH_2
VII-44-7	^{t}Bu	H	H	$CH_2CH_2SCH_3$	Bz	H	F	H	OH	H	H	NH_2
VII-44-8	^{t}Bu	*	H	*	Bz	H	F	H	OH	H	H	NH_2

*R^2 and R^{3b} joined together by $(CH_2)_3$ to form five-membered ring.

Table VII-45.

№	R^1	R^2	R^{3a}	R^{3b}	R^4	R^5	R^6	X	Y	R^7	R^8	R^9
VII-45-1	Ph	H	H	H	Bz	H	F	H	OH	H	H	NH_2
VII-45-2	Ph	H	H	CH_3	Bz	H	F	H	OH	H	H	NH_2
VII-45-3	Ph	H	H	$CH(CH_3)_2$	Bz	H	F	H	OH	H	H	NH_2
VII-45-4	Ph	H	H	$CH_2CH(CH_3)_2$	Bz	H	F	H	OH	H	H	NH_2
VII-45-5	Ph	H	H	CH_2Ph	Bz	H	F	H	OH	H	H	NH_2
VII-45-6	Ph	H	H	CH_2-indol-3-yl	Bz	H	F	H	OH	H	H	NH_2
VII-45-7	Ph	H	H	$CH_2CH_2SCH_3$	Bz	H	F	H	OH	H	H	NH_2
VII-45-8	Ph	*	H	*	Bz	H	F	H	OH	H	H	NH_2

Gilead Exhibit 2023
PGR2023-00046 - Page 00210

*R^2 and R^{3b} joined together by $(CH_2)_3$ to form five-membered ring.

Table VII-46.

№	R^1	R^2	R^{3a}	R^{3b}	R^4	R^5	R^6	X	Y	R^7	R^8	R^9
VII-46-1	p-Me-Ph	H	H	H	Bz	H	F	H	OH	H	H	NH_2
VII-46-2	p-Me-Ph	H	H	CH_3	Bz	H	F	H	OH	H	H	NH_2
VII-46-3	p-Me-Ph	H	H	$CH(CH_3)_2$	Bz	H	F	H	OH	H	H	NH_2
VII-46-4	p-Me-Ph	H	H	$CH_2CH(CH_3)_2$	Bz	H	F	H	OH	H	H	NH_2
VII-46-5	p-Me-Ph	H	H	CH_2Ph	Bz	H	F	H	OH	H	H	NH_2
VII-46-6	p-Me-Ph	H	H	CH_2-indol-3-yl	Bz	H	F	H	OH	H	H	NH_2
VII-46-7	p-Me-Ph	H	H	$CH_2CH_2SCH_3$	Bz	H	F	H	OH	H	H	NH_2
VII-46-8	p-Me-Ph	*	H	*	Bz	H	F	H	OH	H	H	NH_2

*R^2 and R^{3b} joined together by $(CH_2)_3$ to form five-membered ring.

Table VII-47.

№	R^1	R^2	R^{3a}	R^{3b}	R^4	R^5	R^6	X	Y	R^7	R^8	R^9
VII-47-1	p-F-Ph	H	H	H	Bz	H	F	H	OH	H	H	NH_2
VII-47-2	p-F-Ph	H	H	CH_3	Bz	H	F	H	OH	H	H	NH_2
VII-47-3	p-F-Ph	H	H	$CH(CH_3)_2$	Bz	H	F	H	OH	H	H	NH_2
VII-47-4	p-F-Ph	H	H	$CH_2CH(CH_3)_2$	Bz	H	F	H	OH	H	H	NH_2
VII-47-5	p-F-Ph	H	H	CH_2Ph	Bz	H	F	H	OH	H	H	NH_2
VII-47-6	p-F-Ph	H	H	CH_2-indol-3-yl	Bz	H	F	H	OH	H	H	NH_2
VII-47-7	p-F-Ph	H	H	$CH_2CH_2SCH_3$	Bz	H	F	H	OH	H	H	NH_2
VII-47-8	p-F-Ph	*	H	*	Bz	H	F	H	OH	H	H	NH_2

*R^2 and R^{3b} joined together by $(CH_2)_3$ to form five-membered ring.

Table VII-48.

№	R^1	R^2	R^{3a}	R^{3b}	R^4	R^5	R^6	X	Y	R^7	R^8	R^9
VII-48-1	p-Cl-Ph	H	H	H	Bz	H	F	H	OH	H	H	NH_2
VII-48-2	p-Cl-Ph	H	H	CH_3	Bz	H	F	H	OH	H	H	NH_2
VII-48-3	p-Cl-Ph	H	H	$CH(CH_3)_2$	Bz	H	F	H	OH	H	H	NH_2
VII-48-4	p-Cl-Ph	H	H	$CH_2CH(CH_3)_2$	Bz	H	F	H	OH	H	H	NH_2
VII-48-5	p-Cl-Ph	H	H	CH_2Ph	Bz	H	F	H	OH	H	H	NH_2
VII-48-6	p-Cl-Ph	H	H	CH_2-indol-3-yl	Bz	H	F	H	OH	H	H	NH_2
VII-48-7	p-Cl-Ph	H	H	$CH_2CH_2SCH_3$	Bz	H	F	H	OH	H	H	NH_2

Gilead Exhibit 2023
PGR2023-00046 - Page 00211

№	R^1	R^2	R^{3a}	R^{3b}	R^4	R^5	R^6	X	Y	R^7	R^8	R^9
VII-48-8	p-Cl-Ph	*	H	*	Bz	H	F	H	OH	H	H	NH_2

*R^2 and R^{3b} joined together by $(CH_2)_3$ to form five-membered ring.

Table VII-49.

№	R^1	R^2	R^{3a}	R^{3b}	R^4	R^5	R^6	X	Y	R^7	R^8	R^9
VII-49-1	p-Br-Ph	H	H	H	Bz	H	F	H	OH	H	H	NH_2
VII-49-2	p-Br-Ph	H	H	CH_3	Bz	H	F	H	OH	H	H	NH_2
VII-49-3	p-Br-Ph	H	H	$CH(CH_3)_2$	Bz	H	F	H	OH	H	H	NH_2
VII-49-4	p-Br-Ph	H	H	$CH_2CH(CH_3)_2$	Bz	H	F	H	OH	H	H	NH_2
VII-49-5	p-Br-Ph	H	H	CH_2Ph	Bz	H	F	H	OH	H	H	NH_2
VII-49-6	p-Br-Ph	H	H	CH_2-indol-3-yl	Bz	H	F	H	OH	H	H	NH_2
VII-49-7	p-Br-Ph	H	H	$CH_2CH_2SCH_3$	Bz	H	F	H	OH	H	H	NH_2
VII-49-8	p-Br-Ph	*	H	*	Bz	H	F	H	OH	H	H	NH_2

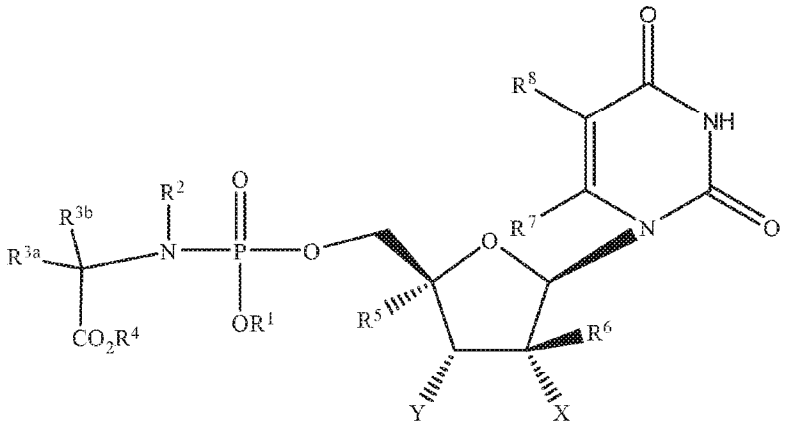
*R^2 and R^{3b} joined together by $(CH_2)_3$ to form five-membered ring.

Table VII-50.

№	R^1	R^2	R^{3a}	R^{3b}	R^4	R^5	R^6	X	Y	R^7	R^8	R^9
VII-50-1	p-I-Ph	H	H	H	Bz	H	F	H	OH	H	H	NH_2
VII-50-2	p-I-Ph	H	H	CH_3	Bz	H	F	H	OH	H	H	NH_2
VII-50-3	p-I-Ph	H	H	$CH(CH_3)_2$	Bz	H	F	H	OH	H	H	NH_2
VII-50-4	p-I-Ph	H	H	$CH_2CH(CH_3)_2$	Bz	H	F	H	OH	H	H	NH_2
VII-50-5	p-I-Ph	H	H	CH_2Ph	Bz	H	F	H	OH	H	H	NH_2
VII-50-6	p-I-Ph	H	H	CH_2-indol-3-yl	Bz	H	F	H	OH	H	H	NH_2
VII-50-7	p-I-Ph	H	H	$CH_2CH_2SCH_3$	Bz	H	F	H	OH	H	H	NH_2
VII-50-8	p-I-Ph	*	H	*	Bz	H	F	H	OH	H	H	NH_2

*R^2 and R^{3b} joined together by $(CH_2)_3$ to form five-membered ring.

Gilead Exhibit 2023
PGR2023-00046 - Page 00212



VIII

Table VIII-1.

№	R^1	R^2	R^{3a}	R^{3b}	R^4	R^5	R^6	X	Y	R^7	R^8
VIII-1-1	CH_3	H	H	H	CH_3	H	CH_3	OH	OH	H	H
VIII-1-2	CH_3	H	H	CH_3	CH_3	H	CH_3	OH	OH	H	H
VIII-1-3	CH_3	H	H	$CH(CH_3)_2$	CH_3	H	CH_3	OH	OH	H	H
VIII-1-4	CH_3	H	H	$CH_2CH(CH_3)_2$	CH_3	H	CH_3	OH	OH	H	H
VIII-1-5	CH_3	H	H	CH_2Ph	CH_3	H	CH_3	OH	OH	H	H
VIII-1-6	CH_3	H	H	CH_2-indol-3-yl	CH_3	H	CH_3	OH	OH	H	H
VIII-1-7	CH_3	H	H	$CH_2CH_2SCH_3$	CH_3	H	CH_3	OH	OH	H	H
VIII-1-8	CH_3	*	H	*	CH_3	H	CH_3	OH	OH	H	H

*R^2 and R^{3b} joined together by $(CH_2)_3$ to form five-membered ring.

Table VIII-2.

№	R^1	R^2	R^{3a}	R^{3b}	R^4	R^5	R^6	X	Y	R^7	R^8
VIII-2-1	Et	H	H	H	CH_3	H	CH_3	OH	OH	H	H
VIII-2-2	Et	H	H	CH_3	CH_3	H	CH_3	OH	OH	H	H
VIII-2-3	Et	H	H	$CH(CH_3)_2$	CH_3	H	CH_3	OH	OH	H	H
VIII-2-4	Et	H	H	$CH_2CH(CH_3)_2$	CH_3	H	CH_3	OH	OH	H	H
VIII-2-5	Et	H	H	CH_2Ph	CH_3	H	CH_3	OH	OH	H	H
VIII-2-6	Et	H	H	CH_2-indol-3-yl	CH_3	H	CH_3	OH	OH	H	H
VIII-2-7	Et	H	H	$CH_2CH_2SCH_3$	CH_3	H	CH_3	OH	OH	H	H
VIII-2-8	Et	*	H	*	CH_3	H	CH_3	OH	OH	H	H

*R^2 and R^{3b} joined together by $(CH_2)_3$ to form five-membered ring.

Gilead Exhibit 2023
PGR2023-00046 - Page 00213

Table VIII-3.

№	R^1	R^2	R^{3a}	R^{3b}	R^4	R^5	R^6	X	Y	R^7	R^8
VIII-3-1	^{i}Pr	H	H	H	CH_3	H	CH_3	OH	OH	H	H
VIII-3-2	^{i}Pr	H	H	CH_3	CH_3	H	CH_3	OH	OH	H	H
VIII-3-3	^{i}Pr	H	H	$CH(CH_3)_2$	CH_3	H	CH_3	OH	OH	H	H
VIII-3-4	^{i}Pr	H	H	$CH_2CH(CH_3)_2$	CH_3	H	CH_3	OH	OH	H	H
VIII-3-5	^{i}Pr	H	H	CH_2Ph	CH_3	H	CH_3	OH	OH	H	H
VIII-3-6	^{i}Pr	H	H	CH_2-indol-3-yl	CH_3	H	CH_3	OH	OH	H	H
VIII-3-7	^{i}Pr	H	H	$CH_2CH_2SCH_3$	CH_3	H	CH_3	OH	OH	H	H
VIII-3-8	^{i}Pr	*	H	*	CH_3	H	CH_3	OH	OH	H	H

*R^2 and R^{3b} joined together by $(CH_2)_3$ to form five-membered ring.

Table VIII-4.

№	R^1	R^2	R^{3a}	R^{3b}	R^4	R^5	R^6	X	Y	R^7	R^8
VIII-4-1	^{t}Bu	H	H	H	CH_3	H	CH_3	OH	OH	H	H
VIII-4-2	^{t}Bu	H	H	CH_3	CH_3	H	CH_3	OH	OH	H	H
VIII-4-3	^{t}Bu	H	H	$CH(CH_3)_2$	CH_3	H	CH_3	OH	OH	H	H
VIII-4-4	^{t}Bu	H	H	$CH_2CH(CH_3)_2$	CH_3	H	CH_3	OH	OH	H	H
VIII-4-5	^{t}Bu	H	H	CH_2Ph	CH_3	H	CH_3	OH	OH	H	H
VIII-4-6	^{t}Bu	H	H	CH_2-indol-3-yl	CH_3	H	CH_3	OH	OH	H	H
VIII-4-7	^{t}Bu	H	H	$CH_2CH_2SCH_3$	CH_3	H	CH_3	OH	OH	H	H
VIII-4-8	^{t}Bu	*	H	*	CH_3	H	CH_3	OH	OH	H	H

*R^2 and R^{3b} joined together by $(CH_2)_3$ to form five-membered ring.

Table VIII-5.

№	R^1	R^2	R^{3a}	R^{3b}	R^4	R^5	R^6	X	Y	R^7	R^8
VIII-5-1	Ph	H	H	H	CH_3	H	CH_3	OH	OH	H	H
VIII-5-2	Ph	H	H	CH_3	CH_3	H	CH_3	OH	OH	H	H
VIII-5-3	Ph	H	H	$CH(CH_3)_2$	CH_3	H	CH_3	OH	OH	H	H
VIII-5-4	Ph	H	H	$CH_2CH(CH_3)_2$	CH_3	H	CH_3	OH	OH	H	H
VIII-5-5	Ph	H	H	CH_2Ph	CH_3	H	CH_3	OH	OH	H	H
VIII-5-6	Ph	H	H	CH_2-indol-3-yl	CH_3	H	CH_3	OH	OH	H	H
VIII-5-7	Ph	H	H	$CH_2CH_2SCH_3$	CH_3	H	CH_3	OH	OH	H	H
VIII-5-8	Ph	*	H	*	CH_3	H	CH_3	OH	OH	H	H

*R^2 and R^{3b} joined together by $(CH_2)_3$ to form five-membered ring.

Gilead Exhibit 2023
PGR2023-00046 - Page 00214

Table VIII-6.

№	R^1	R^2	R^{3a}	R^{3b}	R^4	R^5	R^6	X	Y	R^7	R^8
VIII-6-1	p-Me-Ph	H	H	H	CH_3	H	CH_3	OH	OH	H	H
VIII-6-2	p-Me-Ph	H	H	CH_3	CH_3	H	CH_3	OH	OH	H	H
VIII-6-3	p-Me-Ph	H	H	$CH(CH_3)_2$	CH_3	H	CH_3	OH	OH	H	H
VIII-6-4	p-Me-Ph	H	H	$CH_2CH(CH_3)_2$	CH_3	H	CH_3	OH	OH	H	H
VIII-6-5	p-Me-Ph	H	H	CH_2Ph	CH_3	H	CH_3	OH	OH	H	H
VIII-6-6	p-Me-Ph	H	H	CH_2-indol-3-yl	CH_3	H	CH_3	OH	OH	H	H
VIII-6-7	p-Me-Ph	H	H	$CH_2CH_2SCH_3$	CH_3	H	CH_3	OH	OH	H	H
VIII-6-8	p-Me-Ph	*	H	*	CH_3	H	CH_3	OH	OH	H	H

*R^2 and R^{3b} joined together by $(CH_2)_3$ to form five-membered ring.

Table VIII-7.

№	R^1	R^2	R^{3a}	R^{3b}	R^4	R^5	R^6	X	Y	R^7	R^8
VIII-7-1	p-F-Ph	H	H	H	CH_3	H	CH_3	OH	OH	H	H
VIII-7-2	p-F-Ph	H	H	CH_3	CH_3	H	CH_3	OH	OH	H	H
VIII-7-3	p-F-Ph	H	H	$CH(CH_3)_2$	CH_3	H	CH_3	OH	OH	H	H
VIII-7-4	p-F-Ph	H	H	$CH_2CH(CH_3)_2$	CH_3	H	CH_3	OH	OH	H	H
VIII-7-6	p-F-Ph	H	H	CH_2Ph	CH_3	H	CH_3	OH	OH	H	H
VIII-7-7	p-F-Ph	H	H	CH_2-indol-3-yl	CH_3	H	CH_3	OH	OH	H	H
VIII-7-8	p-F-Ph	H	H	$CH_2CH_2SCH_3$	CH_3	H	CH_3	OH	OH	H	H
VIII-7-20	p-F-Ph	*	H	*	CH_3	H	CH_3	OH	OH	H	H

*R^2 and R^{3b} joined together by $(CH_2)_3$ to form five-membered ring.

Table VIII-8.

№	R^1	R^2	R^{3a}	R^{3b}	R^4	R^5	R^6	X	Y	R^7	R^8
VIII-8-1	p-Cl-Ph	H	H	H	CH_3	H	CH_3	OH	OH	H	H
VIII-8-2	p-Cl-Ph	H	H	CH_3	CH_3	H	CH_3	OH	OH	H	H
VIII-8-3	p-Cl-Ph	H	H	$CH(CH_3)_2$	CH_3	H	CH_3	OH	OH	H	H
VIII-8-4	p-Cl-Ph	H	H	$CH_2CH(CH_3)_2$	CH_3	H	CH_3	OH	OH	H	H
VIII-8-5	p-Cl-Ph	H	H	CH_2Ph	CH_3	H	CH_3	OH	OH	H	H
VIII-8-6	p-Cl-Ph	H	H	CH_2-indol-3-yl	CH_3	H	CH_3	OH	OH	H	H
VIII-8-7	p-Cl-Ph	H	H	$CH_2CH_2SCH_3$	CH_3	H	CH_3	OH	OH	H	H
VIII-8-8	p-Cl-Ph	*	H	*	CH_3	H	CH_3	OH	OH	H	H

*R^2 and R^{3b} joined together by $(CH_2)_3$ to form five-membered ring.

Gilead Exhibit 2023
PGR2023-00046 - Page 00215

Table VIII-9.

№	R^1	R^2	R^{3a}	R^{3b}	R^4	R^5	R^6	X	Y	R^7	R^8
VIII-9-1	p-Br-Ph	H	H	H	CH_3	H	CH_3	OH	OH	H	H
VIII-9-2	p-Br-Ph	H	H	CH_3	CH_3	H	CH_3	OH	OH	H	H
VIII-9-3	p-Br-Ph	H	H	$CH(CH_3)_2$	CH_3	H	CH_3	OH	OH	H	H
VIII-9-4	p-Br-Ph	H	H	$CH_2CH(CH_3)_2$	CH_3	H	CH_3	OH	OH	H	H
VIII-9-6	p-Br-Ph	H	H	CH_2Ph	CH_3	H	CH_3	OH	OH	H	H
VIII-9-7	p-Br-Ph	H	H	CH_2-indol-3-yl	CH_3	H	CH_3	OH	OH	H	H
VIII-9-8	p-Br-Ph	H	H	$CH_2CH_2SCH_3$	CH_3	H	CH_3	OH	OH	H	H
VIII-9-20	p-Br-Ph	*	H	*	CH_3	H	CH_3	OH	OH	H	H

*R^2 and R^{3b} joined together by $(CH_2)_3$ to form five-membered ring.

Table VIII-10.

№	R^1	R^2	R^{3a}	R^{3b}	R^4	R^5	R^6	X	Y	R^7	R^8
VIII-10-1	p-I-Ph	H	H	H	CH_3	H	CH_3	OH	OH	H	H
VIII-10-2	p-I-Ph	H	H	CH_3	CH_3	H	CH_3	OH	OH	H	H
VIII-10-3	p-I-Ph	H	H	$CH(CH_3)_2$	CH_3	H	CH_3	OH	OH	H	H
VIII-10-4	p-I-Ph	H	H	$CH_2CH(CH_3)_2$	CH_3	H	CH_3	OH	OH	H	H
VIII-10-5	p-I-Ph	H	H	CH_2Ph	CH_3	H	CH_3	OH	OH	H	H
VIII-10-6	p-I-Ph	H	H	CH_2-indol-3-yl	CH_3	H	CH_3	OH	OH	H	H
VIII-10-7	p-I-Ph	H	H	$CH_2CH_2SCH_3$	CH_3	H	CH_3	OH	OH	H	H
VIII-10-8	p-I-Ph	*	H	*	CH_3	H	CH_3	OH	OH	H	H

*R^2 and R^{3b} joined together by $(CH_2)_3$ to form five-membered ring.

Table VIII-11.

№	R^1	R^2	R^{3a}	R^{3b}	R^4	R^5	R^6	X	Y	R^7	R^8
VIII-11-1	CH_3	H	H	H	Et	H	CH_3	OH	OH	H	H
VIII-11-2	CH_3	H	H	CH_3	Et	H	CH_3	OH	OH	H	H
VIII-11-3	CH_3	H	H	$CH(CH_3)_2$	Et	H	CH_3	OH	OH	H	H
VIII-11-4	CH_3	H	H	$CH_2CH(CH_3)_2$	Et	H	CH_3	OH	OH	H	H
VIII-11-5	CH_3	H	H	CH_2Ph	Et	H	CH_3	OH	OH	H	H
VIII-11-6	CH_3	H	H	CH_2-indol-3-yl	Et	H	CH_3	OH	OH	H	H
VIII-11-7	CH_3	H	H	$CH_2CH_2SCH_3$	Et	H	CH_3	OH	OH	H	H
VIII-11-8	CH_3	*	H	*	Et	H	CH_3	OH	OH	H	H

*R^2 and R^{3b} joined together by $(CH_2)_3$ to form five-membered ring.

Gilead Exhibit 2023
PGR2023-00046 - Page 00216

Table VIII-12.

№	R^1	R^2	R^{3a}	R^{3b}	R^4	R^5	R^6	X	Y	R^7	R^8
VIII-12-1	Et	H	H	H	Et	H	CH_3	OH	OH	H	H
VIII-12-2	Et	H	H	CH_3	Et	H	CH_3	OH	OH	H	H
VIII-12-3	Et	H	H	$CH(CH_3)_2$	Et	H	CH_3	OH	OH	H	H
VIII-12-4	Et	H	H	$CH_2CH(CH_3)_2$	Et	H	CH_3	OH	OH	H	H
VIII-12-5	Et	H	H	CH_2Ph	Et	H	CH_3	OH	OH	H	H
VIII-12-6	Et	H	H	CH_2-indol-3-yl	Et	H	CH_3	OH	OH	H	H
VIII-12-7	Et	H	H	$CH_2CH_2SCH_3$	Et	H	CH_3	OH	OH	H	H
VIII-12-8	Et	*	H	*	Et	H	CH_3	OH	OH	H	H

*R^2 and R^{3b} joined together by $(CH_2)_3$ to form five-membered ring.

Table VIII-13.

№	R^1	R^2	R^{3a}	R^{3b}	R^4	R^5	R^6	X	Y	R^7	R^8
VIII-13-1	^{i}Pr	H	H	H	Et	H	CH_3	OH	OH	H	H
VIII-13-2	^{i}Pr	H	H	CH_3	Et	H	CH_3	OH	OH	H	H
VIII-13-3	^{i}Pr	H	H	$CH(CH_3)_2$	Et	H	CH_3	OH	OH	H	H
VIII-13-4	^{i}Pr	H	H	$CH_2CH(CH_3)_2$	Et	H	CH_3	OH	OH	H	H
VIII-13-5	^{i}Pr	H	H	CH_2Ph	Et	H	CH_3	OH	OH	H	H
VIII-13-6	^{i}Pr	H	H	CH_2-indol-3-yl	Et	H	CH_3	OH	OH	H	H
VIII-13-7	^{i}Pr	H	H	$CH_2CH_2SCH_3$	Et	H	CH_3	OH	OH	H	H
VIII-13-8	^{i}Pr	*	H	*	Et	H	CH_3	OH	OH	H	H

*R^2 and R^{3b} joined together by $(CH_2)_3$ to form five-membered ring.

Table VIII-14.

№	R^1	R^2	R^{3a}	R^{3b}	R^4	R^5	R^6	X	Y	R^7	R^8
VIII-14-1	^{t}Bu	H	H	H	Et	H	CH_3	OH	OH	H	H
VIII-14-2	^{t}Bu	H	H	CH_3	Et	H	CH_3	OH	OH	H	H
VIII-14-3	^{t}Bu	H	H	$CH(CH_3)_2$	Et	H	CH_3	OH	OH	H	H
VIII-14-4	^{t}Bu	H	H	$CH_2CH(CH_3)_2$	Et	H	CH_3	OH	OH	H	H
VIII-14-5	^{t}Bu	H	H	CH_2Ph	Et	H	CH_3	OH	OH	H	H
VIII-14-6	^{t}Bu	H	H	CH_2-indol-3-yl	Et	H	CH_3	OH	OH	H	H
VIII-14-7	^{t}Bu	H	H	$CH_2CH_2SCH_3$	Et	H	CH_3	OH	OH	H	H
VIII-14-8	^{t}Bu	*	H	*	Et	H	CH_3	OH	OH	H	H

*R^2 and R^{3b} joined together by $(CH_2)_3$ to form five-membered ring.

Gilead Exhibit 2023
PGR2023-00046 - Page 00217

Table VIII-15.

№	R^1	R^2	R^{3a}	R^{3b}	R^4	R^5	R^6	X	Y	R^7	R^8
VIII-15-1	Ph	H	H	H	Et	H	CH_3	OH	OH	H	H
VIII-15-2	Ph	H	H	CH_3	Et	H	CH_3	OH	OH	H	H
VIII-15-3	Ph	H	H	$CH(CH_3)_2$	Et	H	CH_3	OH	OH	H	H
VIII-15-4	Ph	H	H	$CH_2CH(CH_3)_2$	Et	H	CH_3	OH	OH	H	H
VIII-15-5	Ph	H	H	CH_2Ph	Et	H	CH_3	OH	OH	H	H
VIII-15-6	Ph	H	H	CH_2-indol-3-yl	Et	H	CH_3	OH	OH	H	H
VIII-15-7	Ph	H	H	$CH_2CH_2SCH_3$	Et	H	CH_3	OH	OH	H	H
VIII-15-8	Ph	*	H	*	Et	H	CH_3	OH	OH	H	H

*R^2 and R^{3b} joined together by $(CH_2)_3$ to form five-membered ring.

Table VIII-16.

№	R^1	R^2	R^{3a}	R^{3b}	R^4	R^5	R^6	X	Y	R^7	R^8
VIII-16-1	p-Me-Ph	H	H	H	Et	H	CH_3	OH	OH	H	H
VIII-16-2	p-Me-Ph	H	H	CH_3	Et	H	CH_3	OH	OH	H	H
VIII-16-3	p-Me-Ph	H	H	$CH(CH_3)_2$	Et	H	CH_3	OH	OH	H	H
VIII-16-4	p-Me-Ph	H	H	$CH_2CH(CH_3)_2$	Et	H	CH_3	OH	OH	H	H
VIII-16-5	p-Me-Ph	H	H	CH_2Ph	Et	H	CH_3	OH	OH	H	H
VIII-16-6	p-Me-Ph	H	H	CH_2-indol-3-yl	Et	H	CH_3	OH	OH	H	H
VIII-16-7	p-Me-Ph	H	H	$CH_2CH_2SCH_3$	Et	H	CH_3	OH	OH	H	H
VIII-16-8	p-Me-Ph	*	H	*	Et	H	CH_3	OH	OH	H	H

*R^2 and R^{3b} joined together by $(CH_2)_3$ to form five-membered ring.

Table VIII-17.

№	R^1	R^2	R^{3a}	R^{3b}	R^4	R^5	R^6	X	Y	R^7	R^8
VIII-17-1	p-F-Ph	H	H	H	Et	H	CH_3	OH	OH	H	H
VIII-17-2	p-F-Ph	H	H	CH_3	Et	H	CH_3	OH	OH	H	H
VIII-17-3	p-F-Ph	H	H	$CH(CH_3)_2$	Et	H	CH_3	OH	OH	H	H
VIII-17-4	p-F-Ph	H	H	$CH_2CH(CH_3)_2$	Et	H	CH_3	OH	OH	H	H
VIII-17-5	p-F-Ph	H	H	CH_2Ph	Et	H	CH_3	OH	OH	H	H
VIII-17-6	p-F-Ph	H	H	CH_2-indol-3-yl	Et	H	CH_3	OH	OH	H	H
VIII-17-7	p-F-Ph	H	H	$CH_2CH_2SCH_3$	Et	H	CH_3	OH	OH	H	H
VIII-17-8	p-F-Ph	*	H	*	Et	H	CH_3	OH	OH	H	H

*R^2 and R^{3b} joined together by $(CH_2)_3$ to form five-membered ring.

Gilead Exhibit 2023
PGR2023-00046 - Page 00218

Table VIII-18.

№	R^1	R^2	R^{3a}	R^{3b}	R^4	R^5	R^6	X	Y	R^7	R^8
VIII-18-1	p-Cl-Ph	H	H	H	Et	H	CH_3	OH	OH	H	H
VIII-18-2	p-Cl-Ph	H	H	CH_3	Et	H	CH_3	OH	OH	H	H
VIII-18-3	p-Cl-Ph	H	H	$CH(CH_3)_2$	Et	H	CH_3	OH	OH	H	H
VIII-18-4	p-Cl-Ph	H	H	$CH_2CH(CH_3)_2$	Et	H	CH_3	OH	OH	H	H
VIII-18-5	p-Cl-Ph	H	H	CH_2Ph	Et	H	CH_3	OH	OH	H	H
VIII-18-6	p-Cl-Ph	H	H	CH_2-indol-3-yl	Et	H	CH_3	OH	OH	H	H
VIII-18-7	p-Cl-Ph	H	H	$CH_2CH_2SCH_3$	Et	H	CH_3	OH	OH	H	H
VIII-18-8	p-Cl-Ph	*	H	*	Et	H	CH_3	OH	OH	H	H

*R^2 and R^{3b} joined together by $(CH_2)_3$ to form five-membered ring.

Table VIII-19.

№	R^1	R^2	R^{3a}	R^{3b}	R^4	R^5	R^6	X	Y	R^7	R^8
VIII-19-1	p-Br-Ph	H	H	H	Et	H	CH_3	OH	OH	H	H
VIII-19-2	p-Br-Ph	H	H	CH_3	Et	H	CH_3	OH	OH	H	H
VIII-19-3	p-Br-Ph	H	H	$CH(CH_3)_2$	Et	H	CH_3	OH	OH	H	H
VIII-19-4	p-Br-Ph	H	H	$CH_2CH(CH_3)_2$	Et	H	CH_3	OH	OH	H	H
VIII-19-5	p-Br-Ph	H	H	CH_2Ph	Et	H	CH_3	OH	OH	H	H
VIII-19-6	p-Br-Ph	H	H	CH_2-indol-3-yl	Et	H	CH_3	OH	OH	H	H
VIII-19-7	p-Br-Ph	H	H	$CH_2CH_2SCH_3$	Et	H	CH_3	OH	OH	H	H
VIII-19-8	p-Br-Ph	*	H	*	Et	H	CH_3	OH	OH	H	H

*R^2 and R^{3b} joined together by $(CH_2)_3$ to form five-membered ring.

Table VIII-20.

№	R^1	R^2	R^{3a}	R^{3b}	R^4	R^5	R^6	X	Y	R^7	R^8
VIII-20-1	p-I-Ph	H	H	H	Et	H	CH_3	OH	OH	H	H
VIII-20-2	p-I-Ph	H	H	CH_3	Et	H	CH_3	OH	OH	H	H
VIII-20-3	p-I-Ph	H	H	$CH(CH_3)_2$	Et	H	CH_3	OH	OH	H	H
VIII-20-4	p-I-Ph	H	H	$CH_2CH(CH_3)_2$	Et	H	CH_3	OH	OH	H	H
VIII-20-5	p-I-Ph	H	H	CH_2Ph	Et	H	CH_3	OH	OH	H	H
VIII-20-6	p-I-Ph	H	H	CH_2-indol-3-yl	Et	H	CH_3	OH	OH	H	H
VIII-20-7	p-I-Ph	H	H	$CH_2CH_2SCH_3$	Et	H	CH_3	OH	OH	H	H
VIII-20-8	p-I-Ph	*	H	*	Et	H	CH_3	OH	OH	H	H

*R^2 and R^{3b} joined together by $(CH_2)_3$ to form five-membered ring.

Gilead Exhibit 2023
PGR2023-00046 - Page 00219

Table VIII-21.

№	R^1	R^2	R^{3a}	R^{3b}	R^4	R^5	R^6	X	Y	R^7	R^8
VIII-21-1	CH_3	H	H	H	^{i}Pr	H	CH_3	OH	OH	H	H
VIII-21-2	CH_3	H	H	CH_3	^{i}Pr	H	CH_3	OH	OH	H	H
VIII-21-3	CH_3	H	H	$CH(CH_3)_2$	^{i}Pr	H	CH_3	OH	OH	H	H
VIII-21-4	CH_3	H	H	$CH_2CH(CH_3)_2$	^{i}Pr	H	CH_3	OH	OH	H	H
VIII-21-5	CH_3	H	H	CH_2Ph	^{i}Pr	H	CH_3	OH	OH	H	H
VIII-21-6	CH_3	H	H	CH_2-indol-3-yl	^{i}Pr	H	CH_3	OH	OH	H	H
VIII-21-7	CH_3	H	H	$CH_2CH_2SCH_3$	^{i}Pr	H	CH_3	OH	OH	H	H
VIII-21-8	CH_3	*	H	*	^{i}Pr	H	CH_3	OH	OH	H	H

*R^2 and R^{3b} joined together by $(CH_2)_3$ to form five-membered ring.

Table VIII-22.

№	R^1	R^2	R^{3a}	R^{3b}	R^4	R^5	R^6	X	Y	R^7	R^8
VIII-22-1	Et	H	H	H	^{i}Pr	H	CH_3	OH	OH	H	H
VIII-22-2	Et	H	H	CH_3	^{i}Pr	H	CH_3	OH	OH	H	H
VIII-22-3	Et	H	H	$CH(CH_3)_2$	^{i}Pr	H	CH_3	OH	OH	H	H
VIII-22-4	Et	H	H	$CH_2CH(CH_3)_2$	^{i}Pr	H	CH_3	OH	OH	H	H
VIII-22-5	Et	H	H	CH_2Ph	^{i}Pr	H	CH_3	OH	OH	H	H
VIII-22-6	Et	H	H	CH_2-indol-3-yl	^{i}Pr	H	CH_3	OH	OH	H	H
VIII-22-7	Et	H	H	$CH_2CH_2SCH_3$	^{i}Pr	H	CH_3	OH	OH	H	H
VIII-22-8	Et	*	H	*	^{i}Pr	H	CH_3	OH	OH	H	H

*R^2 and R^{3b} joined together by $(CH_2)_3$ to form five-membered ring.

Table VIII-23.

№	R^1	R^2	R^{3a}	R^{3b}	R^4	R^5	R^6	X	Y	R^7	R^8
VIII-23-1	^{i}Pr	H	H	H	^{i}Pr	H	CH_3	OH	OH	H	H
VIII-23-2	^{i}Pr	H	H	CH_3	^{i}Pr	H	CH_3	OH	OH	H	H
VIII-23-3	^{i}Pr	H	H	$CH(CH_3)_2$	^{i}Pr	H	CH_3	OH	OH	H	H
VIII-23-4	^{i}Pr	H	H	$CH_2CH(CH_3)_2$	^{i}Pr	H	CH_3	OH	OH	H	H
VIII-23-5	^{i}Pr	H	H	CH_2Ph	^{i}Pr	H	CH_3	OH	OH	H	H
VIII-23-6	^{i}Pr	H	H	CH_2-indol-3-yl	^{i}Pr	H	CH_3	OH	OH	H	H
VIII-23-7	^{i}Pr	H	H	$CH_2CH_2SCH_3$	^{i}Pr	H	CH_3	OH	OH	H	H
VIII-23-8	^{i}Pr	*	H	*	^{i}Pr	H	CH_3	OH	OH	H	H

*R^2 and R^{3b} joined together by $(CH_2)_3$ to form five-membered ring.

Gilead Exhibit 2023
PGR2023-00046 - Page 00220

Table VIII-24.

№	R^1	R^2	R^{3a}	R^{3b}	R^4	R^5	R^6	X	Y	R^7	R^8
VIII-24-1	^{t}Bu	H	H	H	^{i}Pr	H	CH_3	OH	OH	H	H
VIII-24-2	^{t}Bu	H	H	CH_3	^{i}Pr	H	CH_3	OH	OH	H	H
VIII-24-3	^{t}Bu	H	H	$CH(CH_3)_2$	^{i}Pr	H	CH_3	OH	OH	H	H
VIII-24-4	^{t}Bu	H	H	$CH_2CH(CH_3)_2$	^{i}Pr	H	CH_3	OH	OH	H	H
VIII-24-5	^{t}Bu	H	H	CH_2Ph	^{i}Pr	H	CH_3	OH	OH	H	H
VIII-24-6	^{t}Bu	H	H	CH_2-indol-3-yl	^{i}Pr	H	CH_3	OH	OH	H	H
VIII-24-7	^{t}Bu	H	H	$CH_2CH_2SCH_3$	^{i}Pr	H	CH_3	OH	OH	H	H
VIII-24-8	^{t}Bu	*	H	*	^{i}Pr	H	CH_3	OH	OH	H	H

*R^2 and R^{3b} joined together by $(CH_2)_3$ to form five-membered ring.

Table VIII-25.

№	R^1	R^2	R^{3a}	R^{3b}	R^4	R^5	R^6	X	Y	R^7	R^8
VIII-25-1	Ph	H	H	H	^{i}Pr	H	CH_3	OH	OH	H	H
VIII-25-2	Ph	H	H	CH_3	^{i}Pr	H	CH_3	OH	OH	H	H
VIII-25-3	Ph	H	H	$CH(CH_3)_2$	^{i}Pr	H	CH_3	OH	OH	H	H
VIII-25-4	Ph	H	H	$CH_2CH(CH_3)_2$	^{i}Pr	H	CH_3	OH	OH	H	H
VIII-25-5	Ph	H	H	CH_2Ph	^{i}Pr	H	CH_3	OH	OH	H	H
VIII-25-6	Ph	H	H	CH_2-indol-3-yl	^{i}Pr	H	CH_3	OH	OH	H	H
VIII-25-7	Ph	H	H	$CH_2CH_2SCH_3$	^{i}Pr	H	CH_3	OH	OH	H	H
VIII-25-8	Ph	*	H	*	^{i}Pr	H	CH_3	OH	OH	H	H

*R^2 and R^{3b} joined together by $(CH_2)_3$ to form five-membered ring.

Table VIII-26.

№	R^1	R^2	R^{3a}	R^{3b}	R^4	R^5	R^6	X	Y	R^7	R^8
VIII-26-1	p-Me-Ph	H	H	H	^{i}Pr	H	CH_3	OH	OH	H	H
VIII-26-2	p-Me-Ph	H	H	CH_3	^{i}Pr	H	CH_3	OH	OH	H	H
VIII-26-3	p-Me-Ph	H	H	$CH(CH_3)_2$	^{i}Pr	H	CH_3	OH	OH	H	H
VIII-26-4	p-Me-Ph	H	H	$CH_2CH(CH_3)_2$	^{i}Pr	H	CH_3	OH	OH	H	H
VIII-26-5	p-Me-Ph	H	H	CH_2Ph	^{i}Pr	H	CH_3	OH	OH	H	H
VIII-26-6	p-Me-Ph	H	H	CH_2-indol-3-yl	^{i}Pr	H	CH_3	OH	OH	H	H
VIII-26-7	p-Me-Ph	H	H	$CH_2CH_2SCH_3$	^{i}Pr	H	CH_3	OH	OH	H	H
VIII-26-8	p-Me-Ph	*	H	*	^{i}Pr	H	CH_3	OH	OH	H	H

*R^2 and R^{3b} joined together by $(CH_2)_3$ to form five-membered ring.

Gilead Exhibit 2023
PGR2023-00046 - Page 00221

Table VIII-27.

№	R^1	R^2	R^{3a}	R^{3b}	R^4	R^5	R^6	X	Y	R^7	R^8
VIII-27-1	p-F-Ph	H	H	H	^{i}Pr	H	CH_3	OH	OH	H	H
VIII-27-2	p-F-Ph	H	H	CH_3	^{i}Pr	H	CH_3	OH	OH	H	H
VIII-27-3	p-F-Ph	H	H	$CH(CH_3)_2$	^{i}Pr	H	CH_3	OH	OH	H	H
VIII-27-4	p-F-Ph	H	H	$CH_2CH(CH_3)_2$	^{i}Pr	H	CH_3	OH	OH	H	H
VIII-27-5	p-F-Ph	H	H	CH_2Ph	^{i}Pr	H	CH_3	OH	OH	H	H
VIII-27-6	p-F-Ph	H	H	CH_2-indol-3-yl	^{i}Pr	H	CH_3	OH	OH	H	H
VIII-27-7	p-F-Ph	H	H	$CH_2CH_2SCH_3$	^{i}Pr	H	CH_3	OH	OH	H	H
VIII-27-8	p-F-Ph	*	H	*	^{i}Pr	H	CH_3	OH	OH	H	H

*R^2 and R^{3b} joined together by $(CH_2)_3$ to form five-membered ring.

Table VIII-28.

№	R^1	R^2	R^{3a}	R^{3b}	R^4	R^5	R^6	X	Y	R^7	R^8
VIII-28-1	p-Cl-Ph	H	H	H	^{i}Pr	H	CH_3	OH	OH	H	H
VIII-28-2	p-Cl-Ph	H	H	CH_3	^{i}Pr	H	CH_3	OH	OH	H	H
VIII-28-3	p-Cl-Ph	H	H	$CH(CH_3)_2$	^{i}Pr	H	CH_3	OH	OH	H	H
VIII-28-4	p-Cl-Ph	H	H	$CH_2CH(CH_3)_2$	^{i}Pr	H	CH_3	OH	OH	H	H
VIII-28-5	p-Cl-Ph	H	H	CH_2Ph	^{i}Pr	H	CH_3	OH	OH	H	H
VIII-28-6	p-Cl-Ph	H	H	CH_2-indol-3-yl	^{i}Pr	H	CH_3	OH	OH	H	H
VIII-28-7	p-Cl-Ph	H	H	$CH_2CH_2SCH_3$	^{i}Pr	H	CH_3	OH	OH	H	H
VIII-28-8	p-Cl-Ph	*	H	*	^{i}Pr	H	CH_3	OH	OH	H	H

*R^2 and R^{3b} joined together by $(CH_2)_3$ to form five-membered ring.

Table VIII-29.

№	R^1	R^2	R^{3a}	R^{3b}	R^4	R^5	R^6	X	Y	R^7	R^8
VIII-29-1	p-Br-Ph	H	H	H	^{i}Pr	H	CH_3	OH	OH	H	H
VIII-29-2	p-Br-Ph	H	H	CH_3	^{i}Pr	H	CH_3	OH	OH	H	H
VIII-29-3	p-Br-Ph	H	H	$CH(CH_3)_2$	^{i}Pr	H	CH_3	OH	OH	H	H
VIII-29-4	p-Br-Ph	H	H	$CH_2CH(CH_3)_2$	^{i}Pr	H	CH_3	OH	OH	H	H
VIII-29-5	p-Br-Ph	H	H	CH_2Ph	^{i}Pr	H	CH_3	OH	OH	H	H
VIII-29-6	p-Br-Ph	H	H	CH_2-indol-3-yl	^{i}Pr	H	CH_3	OH	OH	H	H
VIII-29-7	p-Br-Ph	H	H	$CH_2CH_2SCH_3$	^{i}Pr	H	CH_3	OH	OH	H	H
VIII-29-8	p-Br-Ph	*	H	*	^{i}Pr	H	CH_3	OH	OH	H	H

*R^2 and R^{3b} joined together by $(CH_2)_3$ to form five-membered ring.

Gilead Exhibit 2023
PGR2023-00046 - Page 00222

Table VIII-30.

№	R^1	R^2	R^{3a}	R^{3b}	R^4	R^5	R^6	X	Y	R^7	R^8
VIII-30-1	p-I-Ph	H	H	H	^{i}Pr	H	CH_3	OH	OH	H	H
VIII-30-2	p-I-Ph	H	H	CH_3	^{i}Pr	H	CH_3	OH	OH	H	H
VIII-30-3	p-I-Ph	H	H	$CH(CH_3)_2$	^{i}Pr	H	CH_3	OH	OH	H	H
VIII-30-4	p-I-Ph	H	H	$CH_2CH(CH_3)_2$	^{i}Pr	H	CH_3	OH	OH	H	H
VIII-30-5	p-I-Ph	H	H	CH_2Ph	^{i}Pr	H	CH_3	OH	OH	H	H
VIII-30-6	p-I-Ph	H	H	CH_2-indol-3-yl	^{i}Pr	H	CH_3	OH	OH	H	H
VIII-30-7	p-I-Ph	H	H	$CH_2CH_2SCH_3$	^{i}Pr	H	CH_3	OH	OH	H	H
VIII-30-8	p-I-Ph	*	H	*	^{i}Pr	H	CH_3	OH	OH	H	H

*R^2 and R^{3b} joined together by $(CH_2)_3$ to form five-membered ring.

Table VIII-31.

№	R^1	R^2	R^{3a}	R^{3b}	R^4	R^5	R^6	X	Y	R^7	R^8
VIII-31-1	CH_3	H	H	H	^{n}Bu	H	CH_3	OH	OH	H	H
VIII-31-2	CH_3	H	H	CH_3	^{n}Bu	H	CH_3	OH	OH	H	H
VIII-31-3	CH_3	H	H	$CH(CH_3)_2$	^{n}Bu	H	CH_3	OH	OH	H	H
VIII-31-4	CH_3	H	H	$CH_2CH(CH_3)_2$	^{n}Bu	H	CH_3	OH	OH	H	H
VIII-31-5	CH_3	H	H	CH_2Ph	^{n}Bu	H	CH_3	OH	OH	H	H
VIII-31-6	CH_3	H	H	CH_2-indol-3-yl	^{n}Bu	H	CH_3	OH	OH	H	H
VIII-31-7	CH_3	H	H	$CH_2CH_2SCH_3$	^{n}Bu	H	CH_3	OH	OH	H	H
VIII-31-8	CH_3	*	H	*	^{n}Bu	H	CH_3	OH	OH	H	H

*R^2 and R^{3b} joined together by $(CH_2)_3$ to form five-membered ring.

Table VIII-32.

№	R^1	R^2	R^{3a}	R^{3b}	R^4	R^5	R^6	X	Y	R^7	R^8
VIII-32-1	Et	H	H	H	^{n}Bu	H	CH_3	OH	OH	H	H
VIII-32-2	Et	H	H	CH_3	^{n}Bu	H	CH_3	OH	OH	H	H
VIII-32-3	Et	H	H	$CH(CH_3)_2$	^{n}Bu	H	CH_3	OH	OH	H	H
VIII-32-4	Et	H	H	$CH_2CH(CH_3)_2$	^{n}Bu	H	CH_3	OH	OH	H	H
VIII-32-5	Et	H	H	CH_2Ph	^{n}Bu	H	CH_3	OH	OH	H	H
VIII-32-6	Et	H	H	CH_2-indol-3-yl	^{n}Bu	H	CH_3	OH	OH	H	H
VIII-32-7	Et	H	H	$CH_2CH_2SCH_3$	^{n}Bu	H	CH_3	OH	OH	H	H
VIII-32-8	Et	*	H	*	^{n}Bu	H	CH_3	OH	OH	H	H

*R^2 and R^{3b} joined together by $(CH_2)_3$ to form five-membered ring.

Gilead Exhibit 2023
PGR2023-00046 - Page 00223

Table VIII-33.

№	R^1	R^2	R^{3a}	R^{3b}	R^4	R^5	R^6	X	Y	R^7	R^8
VIII-33-1	^{i}Pr	H	H	H	^{n}Bu	H	CH_3	OH	OH	H	H
VIII-33-2	^{i}Pr	H	H	CH_3	^{n}Bu	H	CH_3	OH	OH	H	H
VIII-33-3	^{i}Pr	H	H	$CH(CH_3)_2$	^{n}Bu	H	CH_3	OH	OH	H	H
VIII-33-4	^{i}Pr	H	H	$CH_2CH(CH_3)_2$	^{n}Bu	H	CH_3	OH	OH	H	H
VIII-33-5	^{i}Pr	H	H	CH_2Ph	^{n}Bu	H	CH_3	OH	OH	H	H
VIII-33-6	^{i}Pr	H	H	CH_2-indol-3-yl	^{n}Bu	H	CH_3	OH	OH	H	H
VIII-33-7	^{i}Pr	H	H	$CH_2CH_2SCH_3$	^{n}Bu	H	CH_3	OH	OH	H	H
VIII-33-8	^{i}Pr	*	H	*	^{n}Bu	H	CH_3	OH	OH	H	H

*R^2 and R^{3b} joined together by $(CH_2)_3$ to form five-membered ring.

Table VIII-34.

№	R^1	R^2	R^{3a}	R^{3b}	R^4	R^5	R^6	X	Y	R^7	R^8
VIII-34-1	^{t}Bu	H	H	H	^{n}Bu	H	CH_3	OH	OH	H	H
VIII-34-2	^{t}Bu	H	H	CH_3	^{n}Bu	H	CH_3	OH	OH	H	H
VIII-34-3	^{t}Bu	H	H	$CH(CH_3)_2$	^{n}Bu	H	CH_3	OH	OH	H	H
VIII-34-4	^{t}Bu	H	H	$CH_2CH(CH_3)_2$	^{n}Bu	H	CH_3	OH	OH	H	H
VIII-34-5	^{t}Bu	H	H	CH_2Ph	^{n}Bu	H	CH_3	OH	OH	H	H
VIII-34-6	^{t}Bu	H	H	CH_2-indol-3-yl	^{n}Bu	H	CH_3	OH	OH	H	H
VIII-34-7	^{t}Bu	H	H	$CH_2CH_2SCH_3$	^{n}Bu	H	CH_3	OH	OH	H	H
VIII-34-8	^{t}Bu	*	H	*	^{n}Bu	H	CH_3	OH	OH	H	H

*R^2 and R^{3b} joined together by $(CH_2)_3$ to form five-membered ring.

Table VIII-35.

№	R^1	R^2	R^{3a}	R^{3b}	R^4	R^5	R^6	X	Y	R^7	R^8
VIII-35-1	Ph	H	H	H	^{n}Bu	H	CH_3	OH	OH	H	H
VIII-35-2	Ph	H	H	CH_3	^{n}Bu	H	CH_3	OH	OH	H	H
VIII-35-3	Ph	H	H	$CH(CH_3)_2$	^{n}Bu	H	CH_3	OH	OH	H	H
VIII-35-4	Ph	H	H	$CH_2CH(CH_3)_2$	^{n}Bu	H	CH_3	OH	OH	H	H
VIII-35-5	Ph	H	H	CH_2Ph	^{n}Bu	H	CH_3	OH	OH	H	H
VIII-35-6	Ph	H	H	CH_2-indol-3-yl	^{n}Bu	H	CH_3	OH	OH	H	H
VIII-35-7	Ph	H	H	$CH_2CH_2SCH_3$	^{n}Bu	H	CH_3	OH	OH	H	H
VIII-35-8	Ph	*	H	*	^{n}Bu	H	CH_3	OH	OH	H	H

*R^2 and R^{3b} joined together by $(CH_2)_3$ to form five-membered ring.

Gilead Exhibit 2023
PGR2023-00046 - Page 00224

Table VIII-36.

№	R^1	R^2	R^{3a}	R^{3b}	R^4	R^5	R^6	X	Y	R^7	R^8
VIII-36-1	p-Me-Ph	H	H	H	^{n}Bu	H	CH_3	OH	OH	H	H
VIII-36-2	p-Me-Ph	H	H	CH_3	^{n}Bu	H	CH_3	OH	OH	H	H
VIII-36-3	p-Me-Ph	H	H	$CH(CH_3)_2$	^{n}Bu	H	CH_3	OH	OH	H	H
VIII-36-4	p-Me-Ph	H	H	$CH_2CH(CH_3)_2$	^{n}Bu	H	CH_3	OH	OH	H	H
VIII-36-5	p-Me-Ph	H	H	CH_2Ph	^{n}Bu	H	CH_3	OH	OH	H	H
VIII-36-6	p-Me-Ph	H	H	CH_2-indol-3-yl	^{n}Bu	H	CH_3	OH	OH	H	H
VIII-36-7	p-Me-Ph	H	H	$CH_2CH_2SCH_3$	^{n}Bu	H	CH_3	OH	OH	H	H
VIII-36-8	p-Me-Ph	*	H	*	^{n}Bu	H	CH_3	OH	OH	H	H

*R^2 and R^{3b} joined together by $(CH_2)_3$ to form five-membered ring.

Table VIII-37.

№	R^1	R^2	R^{3a}	R^{3b}	R^4	R^5	R^6	X	Y	R^7	R^8
VIII-37-1	p-F-Ph	H	H	H	^{n}Bu	H	CH_3	OH	OH	H	H
VIII-37-2	p-F-Ph	H	H	CH_3	^{n}Bu	H	CH_3	OH	OH	H	H
VIII-37-3	p-F-Ph	H	H	$CH(CH_3)_2$	^{n}Bu	H	CH_3	OH	OH	H	H
VIII-37-4	p-F-Ph	H	H	$CH_2CH(CH_3)_2$	^{n}Bu	H	CH_3	OH	OH	H	H
VIII-37-5	p-F-Ph	H	H	CH_2Ph	^{n}Bu	H	CH_3	OH	OH	H	H
VIII-37-6	p-F-Ph	H	H	CH_2-indol-3-yl	^{n}Bu	H	CH_3	OH	OH	H	H
VIII-37-7	p-F-Ph	H	H	$CH_2CH_2SCH_3$	^{n}Bu	H	CH_3	OH	OH	H	H
VIII-37-8	p-F-Ph	*	H	*	^{n}Bu	H	CH_3	OH	OH	H	H

*R^2 and R^{3b} joined together by $(CH_2)_3$ to form five-membered ring.

Table VIII-38.

№	R^1	R^2	R^{3a}	R^{3b}	R^4	R^5	R^6	X	Y	R^7	R^8
VIII-38-1	p-Cl-Ph	H	H	H	^{n}Bu	H	CH_3	OH	OH	H	H
VIII-38-2	p-Cl-Ph	H	H	CH_3	^{n}Bu	H	CH_3	OH	OH	H	H
VIII-38-3	p-Cl-Ph	H	H	$CH(CH_3)_2$	^{n}Bu	H	CH_3	OH	OH	H	H
VIII-38-4	p-Cl-Ph	H	H	$CH_2CH(CH_3)_2$	^{n}Bu	H	CH_3	OH	OH	H	H
VIII-38-5	p-Cl-Ph	H	H	CH_2Ph	^{n}Bu	H	CH_3	OH	OH	H	H
VIII-38-6	p-Cl-Ph	H	H	CH_2-indol-3-yl	^{n}Bu	H	CH_3	OH	OH	H	H
VIII-38-7	p-Cl-Ph	H	H	$CH_2CH_2SCH_3$	^{n}Bu	H	CH_3	OH	OH	H	H
VIII-38-8	p-Cl-Ph	*	H	*	^{n}Bu	H	CH_3	OH	OH	H	H

*R^2 and R^{3b} joined together by $(CH_2)_3$ to form five-membered ring.

Gilead Exhibit 2023
PGR2023-00046 - Page 00225

Table VIII-39.

№	R^1	R^2	R^{3a}	R^{3b}	R^4	R^5	R^6	X	Y	R^7	R^8
VIII-39-1	p-Br-Ph	H	H	H	^{n}Bu	H	CH_3	OH	OH	H	H
VIII-39-2	p-Br-Ph	H	H	CH_3	^{n}Bu	H	CH_3	OH	OH	H	H
VIII-39-3	p-Br-Ph	H	H	$CH(CH_3)_2$	^{n}Bu	H	CH_3	OH	OH	H	H
VIII-39-4	p-Br-Ph	H	H	$CH_2CH(CH_3)_2$	^{n}Bu	H	CH_3	OH	OH	H	H
VIII-39-5	p-Br-Ph	H	H	CH_2Ph	^{n}Bu	H	CH_3	OH	OH	H	H
VIII-39-6	p-Br-Ph	H	H	CH_2-indol-3-yl	^{n}Bu	H	CH_3	OH	OH	H	H
VIII-39-7	p-Br-Ph	H	H	$CH_2CH_2SCH_3$	^{n}Bu	H	CH_3	OH	OH	H	H
VIII-39-8	p-Br-Ph	*	H	*	^{n}Bu	H	CH_3	OH	OH	H	H

*R^2 and R^{3b} joined together by $(CH_2)_3$ to form five-membered ring.

Table VIII-40.

№	R^1	R^2	R^{3a}	R^{3b}	R^4	R^5	R^6	X	Y	R^7	R^8
VIII-40-1	p-I-Ph	H	H	H	^{n}Bu	H	CH_3	OH	OH	H	H
VIII-40-2	p-I-Ph	H	H	CH_3	^{n}Bu	H	CH_3	OH	OH	H	H
VIII-40-3	p-I-Ph	H	H	$CH(CH_3)_2$	^{n}Bu	H	CH_3	OH	OH	H	H
VIII-40-4	p-I-Ph	H	H	$CH_2CH(CH_3)_2$	^{n}Bu	H	CH_3	OH	OH	H	H
VIII-40-5	p-I-Ph	H	H	CH_2Ph	^{n}Bu	H	CH_3	OH	OH	H	H
VIII-40-6	p-I-Ph	H	H	CH_2-indol-3-yl	^{n}Bu	H	CH_3	OH	OH	H	H
VIII-40-7	p-I-Ph	H	H	$CH_2CH_2SCH_3$	^{n}Bu	H	CH_3	OH	OH	H	H
VIII-40-8	p-I-Ph	*	H	*	^{n}Bu	H	CH_3	OH	OH	H	H

*R^2 and R^{3b} joined together by $(CH_2)_3$ to form five-membered ring.

Table VIII-41.

№	R^1	R^2	R^{3a}	R^{3b}	R^4	R^5	R^6	X	Y	R^7	R^8
VIII-41-1	CH_3	H	H	H	Bz	H	CH_3	OH	OH	H	H
VIII-41-2	CH_3	H	H	CH_3	Bz	H	CH_3	OH	OH	H	H
VIII-41-3	CH_3	H	H	$CH(CH_3)_2$	Bz	H	CH_3	OH	OH	H	H
VIII-41-4	CH_3	H	H	$CH_2CH(CH_3)_2$	Bz	H	CH_3	OH	OH	H	H
VIII-41-5	CH_3	H	H	CH_2Ph	Bz	H	CH_3	OH	OH	H	H
VIII-41-6	CH_3	H	H	CH_2-indol-3-yl	Bz	H	CH_3	OH	OH	H	H
VIII-41-7	CH_3	H	H	$CH_2CH_2SCH_3$	Bz	H	CH_3	OH	OH	H	H
VIII-41-8	CH_3	*	H	*	Bz	H	CH_3	OH	OH	H	H

*R^2 and R^{3b} joined together by $(CH_2)_3$ to form five-membered ring.

Gilead Exhibit 2023
PGR2023-00046 - Page 00226