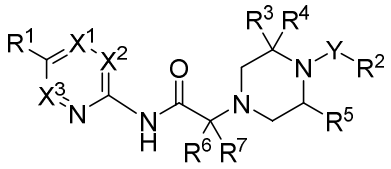
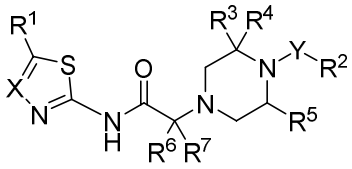
CLAIMS:

1. A compound of Formula (Ia) or (Ib):



(Ia)



(Ib)

or a pharmaceutically acceptable salt thereof; wherein:

X is N or CR^x;

X^1, X^2, and X^3 are each independently N or CR^x;

R^x is independently for each occurrence hydrogen, fluoro, or chloro;

Y is C(=O), $C(=O)CH_2$, CH_2, or a bond;

R^1 is $-OR^{1a}$ or $–CH_2R^{1a}$; wherein R^{1a} is phenyl, $(C_1$-$C_6)$alkyl, 5- to 6-membered heteroaryl, or $(C_3$-$C_8)$cycloalkyl$(C_1$-$C_6)$alkyl; each of which is optionally substituted with one or more substituents independently selected from the group consisting of fluoro, chloro, $(C_1$-$C_6)$alkyl, $(C_3$-$C_8)$cycloalkyl, and $(C_1$-$C_6)$alkoxy;

R^2 is 4-, 5- or 6- membered heterocycloalkyl, 9- or 10-membered bicyclic heterocycloalkyl, 5- or 6- membered heteroaryl, 9- or 10-membered bicyclic heteroaryl, $(C_3$-$C_8)$cycloalkyl, or phenyl; each of which is optionally substituted with one or more substituents independently selected from the group consisting of fluoro, chloro, cyano, hydroxy, $(C_1$-$C_6)$alkyl, $(C_1$-$C_6)$alkenyl, $-C(=O)NH_2$, $-NH_2$, $(C_1$-$C_6)$alkoxy, $(C_1$-$C_6)$haloalkyl, $(C_1$-$C_6)$hydroxyalkyl, $(C_1$-$C_6)$halohydroxyalkyl, $(C_1$-$C_6)$hydroxyalkoxy, $(C_1$-$C_6)$carboxyalkyl, $(C_1$-$C_6)$haloalkoxy, $(C_3$-$C_8)$cycloalkyl, and 4- to 7-membered heterocycloalkyl; wherein $(C_1$-$C_6)$alkyl is optionally substituted with phenyl, 4- to 7-membered heterocycloalkyl, or $–NHR^{2a}$; or R^2 is $(C_1$-$C_6)$alkyl;

R^{2a} is $C(=O)R^{2b}$, $(C_1$-$C_6)$alkyl, or $(C_3$-$C_8)$cycloalkyl, wherein $(C_1$-$C_6)$alkyl or $(C_3$-$C_8)$cycloalkyl is optionally substituted with one or more independent instances of halo;

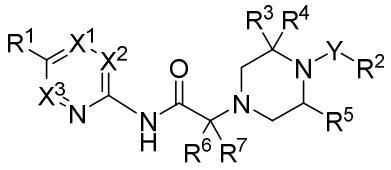
R^{2b} is $(C_1$-$C_6)$alkyl;

R^3 and R^4 are each independently hydrogen, $(C_1$-$C_6)$alkyl, $(C_1$-$C_6)$alkoxyalkyl, or $(C_1$-$C_6)$haloalkyl; or taken together with the carbon atom to which they are attached form a $(C_3$-$C_6)$cycloalkyl;

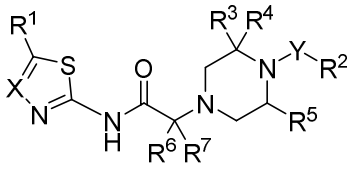
R^5 is hydrogen, $(C_1$-$C_6)$alkyl, $(C_1$-$C_6)$alkoxyalkyl, or $(C_1$-$C_6)$haloalkyl; or R^5 taken together with R^3 or R^4 forms $–(CH_2)_n–$; wherein n is 1, 2, or 3; and

R^6 and R^7 are independently for each occurrence hydrogen or $(C_1\text{-}C_6)$alkyl; or R^6 and R^7 taken together with the carbon atom to which they are attached form a $(C_3\text{-}C_6)$cycloalkyl.

2. A compound of Formula (Ia) or (Ib):



(Ia)



(Ib)

or a pharmaceutically acceptable salt thereof; wherein:

X is N or CR^x;

X^1, X^2, and X^3 are each independently N or CR^x;

R^x is independently for each occurrence hydrogen, fluoro, or chloro;

Y is C(=O), $C(=O)CH_2$, CH_2, or a bond;

R^1 is $-OR^{1a}$ or $–CH_2R^{1a}$; wherein R^{1a} is phenyl, 5- to 6-membered heteroaryl, or $(C_3\text{-}C_8)$cycloalkyl$(C_1\text{-}C_6)$alkyl; each of which is optionally substituted with one or more substituents independently selected from the group consisting of fluoro, chloro, $(C_1\text{-}C_6)$alkyl, $(C_3\text{-}C_8)$cycloalkyl, and $(C_1\text{-}C_6)$alkoxy;

R^2 is 5- or 6- membered heterocycloalkyl, 9- or 10-membered bicyclic heterocycloalkyl, 5- or 6- membered heteroaryl, 9- or 10-membered bicyclic heteroaryl, or phenyl; each of which is optionally substituted with one or more substituents independently selected from the group consisting of fluoro, chloro, cyano, hydroxy, $(C_1\text{-}C_6)$alkyl, $(C_1\text{-}C_6)$alkenyl, $-C(=O)NH_2$, $(C_1\text{-}C_6)$alkoxy, $(C_1\text{-}C_6)$haloalkyl, $(C_1\text{-}C_6)$hydroxyalkyl, and $(C_1\text{-}C_6)$haloalkoxy; wherein $(C_1\text{-}C_6)$alkyl is optionally substituted with phenyl or $–NHR^{2a}$;

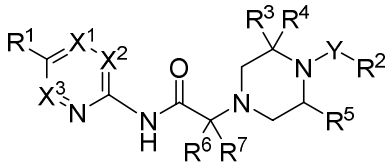
R^{2a} is $(C_3\text{-}C_8)$cycloalkyl, optionally substituted with one or more independent instances of halo;

R^3 and R^4 are each independently hydrogen, $(C_1\text{-}C_6)$alkyl, $(C_1\text{-}C_6)$alkoxyalkyl, or $(C_1\text{-}C_6)$haloalkyl; or taken together with the carbon atom to which they are attached form a $(C_3\text{-}C_6)$cycloalkyl;

R^5 is hydrogen, $(C_1\text{-}C_6)$alkyl, $(C_1\text{-}C_6)$alkoxyalkyl, or $(C_1\text{-}C_6)$haloalkyl; or R^5 taken together with R^3 or R^4 forms $–(CH_2)_n–$; wherein n is 1, 2, or 3; and

R^6 and R^7 are independently for each occurrence hydrogen or $(C_1\text{-}C_6)$alkyl; or R^6 and R^7 taken together with the carbon atom to which they are attached form a $(C_3\text{-}C_6)$cycloalkyl.

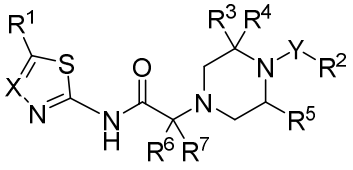
3. The compound of claim 1 or 2, wherein the compound is formula (Ia):


(Ia).

4. The compound of claim 3, wherein X^1 is N; X^2 is CH; and X^3 is CH.

5. The compound of claim 3, wherein X^1 is CH; X^2 is CH; and X^3 is CH.

6. The compound of claim 1 or 2, wherein the compound is formula (Ib):


(Ib).

7. The compound of claim 6, wherein X is CH.

8. The compound of any one of claims 1 to 7, wherein Y is C(=O).

9. The compound of any one of claims 1 to 8, wherein R^1 is $-OR^{1a}$.

10. The compound of any one of claims 1 to 9, wherein R^{1a} is phenyl optionally substituted with one or two instances of fluoro or chloro.

11. The compound of any one of claims 1 to 9, wherein R^{1a} is 6-membered heteroaryl optionally substituted with one or two instances of fluoro or chloro.

12. The compound of any one of claims 1 to 9, wherein R^{1a} is $(C_3\text{-}C_8)$cycloalkyl$(C_1\text{-}C_6)$alkyl.

13. The compound of any one of claims 1 to 12, wherein R^2 is 9- or 10-membered bicyclic heteroaryl optionally substituted with one or more substituents independently selected from the group consisting of fluoro, chloro, cyano, hydroxy, $(C_1\text{-}C_6)$alkyl, $(C_1\text{-}C_6)$alkenyl, $-C(=O)NH_2$, $-NH_2$, $(C_1\text{-}C_6)$alkoxy, $(C_1\text{-}C_6)$haloalkyl, $(C_1\text{-}C_6)$hydroxyalkyl, $(C_1\text{-}$

C_6)halohydroxyalkyl, (C_1-C_6)hydroxyalkoxy, (C_1-C_6)carboxyalkyl, (C_1-C_6)haloalkoxy, (C_3-C_8)cycloalkyl, and 4- to 7-membered heterocycloalkyl; wherein (C_1-C_6)alkyl is optionally substituted with phenyl, 4- to 7-membered heterocycloalkyl, or –NHR^{2a}.

14. The compound of claim 13, wherein R^2 is [1,2,4]triazolo[4,3-a]pyridine, [1,2,4]triazolo[1,5-a]pyridine, [1,2,4]triazolo[1,5-a]pyrazine, [1,2,4]triazolo[1,5-a]pyrimidine, [1,2,4]triazolo[4,3-a]pyrimidine, [1,2,4]triazolo[1,5-b]pyridazine, 1H-pyrazolo[3,4-b]pyridine 7-oxide, 3H-imidazo[4,5-b]pyridine 4-oxide, benzo[d]oxazole, 1H-benzo[d]imidazole, benzo[d]thiazole, 1H-benzo[d][1,2,3]triazole, [1,2,3]oxadiazolo[4,5-b]pyridine, oxazolo[4,5-b]pyridine, 1H-indazole, 1H-pyrazolo[3,4-b]pyridine, or oxoisoindolin-1-yl; each of which is optionally substituted with one or more substituents independently selected from the group consisting of fluoro, chloro, cyano, hydroxy, (C_1-C_6)alkyl, (C_1-C_6)alkenyl, -C(=O)NH_2, -NH_2, (C_1-C_6)alkoxy, (C_1-C_6)haloalkyl, (C_1-C_6)hydroxyalkyl, (C_1-C_6)halohydroxyalkyl, (C_1-C_6)hydroxyalkoxy, (C_1-C_6)carboxyalkyl, (C_1-C_6)haloalkoxy, (C_3-C_8)cycloalkyl, and 4- to 7-membered heterocycloalkyl; wherein (C_1-C_6)alkyl is optionally substituted with phenyl, 4- to 7-membered heterocycloalkyl, or –NHR^{2a}.

15. The compound of any one of claims 1 to 12, wherein R^2 is 9- or 10-membered bicyclic heterocycloalkyl optionally substituted with one or more substituents independently selected from the group consisting of fluoro, chloro, cyano, hydroxy, (C_1-C_6)alkyl, (C_1-C_6)alkenyl, -C(=O)NH_2, -NH_2, (C_1-C_6)alkoxy, (C_1-C_6)haloalkyl, (C_1-C_6)hydroxyalkyl, (C_1-C_6)halohydroxyalkyl, (C_1-C_6)hydroxyalkoxy, (C_1-C_6)carboxyalkyl, (C_1-C_6)haloalkoxy, (C_3-C_8)cycloalkyl, and 4- to 7-membered heterocycloalkyl; wherein (C_1-C_6)alkyl is optionally substituted with phenyl, 4- to 7-membered heterocycloalkyl, or –NHR^{2a}.

16. The compound of claim 15, wherein R^2 is 6,7-dihydro-5H-cyclopenta[b]pyridine 1-oxide, 5,6,7,8-tetrahydro-[1,2,4]triazolo[1,5-a]pyridine, 4,5,6,7-tetrahydropyrazolo[1,5-a]pyridine, 4,5,6,7-tetrahydro-[1,2,3]triazolo[1,5-a]pyridine, 5,6,7,8-tetrahydroimidazo[1,2-a]pyridine, 4,5,6,7-tetrahydro-1H-benzo[d]imidazole, 4,5,6,7-tetrahydrobenzo[d]oxazole, 4,5,6,7-tetrahydro-1H-benzo[d][1,2,3]triazole, 6,7-dihydro-5H-[1,2,4]triazolo[5,1-b][1,3]oxazine, 4,5,6,7-tetrahydro-2H-benzo[d][1,2,3]triazole, isoindolin-1-one, or 7-oxo-6,7-dihydro-1H-pyrazolo[4,3-d]pyrimidine; each of which is optionally substituted with one or more substituents independently selected from the group consisting of fluoro, chloro, cyano,

hydroxy, (C_1-C_6)alkyl, (C_1-C_6)alkenyl, -C(=O)NH_2, -NH_2, (C_1-C_6)alkoxy, (C_1-C_6)haloalkyl, (C_1-C_6)hydroxyalkyl, (C_1-C_6)halohydroxyalkyl, (C_1-C_6)hydroxyalkoxy, (C_1-C_6)carboxyalkyl, (C_1-C_6)haloalkoxy, (C_3-C_8)cycloalkyl, and 4- to 7-membered heterocycloalkyl; wherein (C_1-C_6)alkyl is optionally substituted with phenyl, 4- to 7-membered heterocycloalkyl, or –NHR^{2a}.

17. The compound of any one of claims 1 to 12, wherein R^2 is pyridin-2(1H)-one, pyridine oxide, pyrimidine oxide, 1,5-dihydro-2H-pyrrol-2-one, phenyl, isoindolin-1-one, 1H-indazole, tetrahydro-2H-pyran, pyridine, 1H-pyrazole, 2-oxo-2,3-dihydro-1H-imidazole, 5-oxomorpholine, tetrahydropyrimidin-2(1H)-one, piperidin-2-one, pyrimidin-2(1H)-one, pyridazin-3(2H)-one, or pyrazin-2(1H)-one; each of which is optionally substituted with one or more substituents independently selected from the group consisting of fluoro, chloro, cyano, hydroxy, (C_1-C_6)alkyl, (C_1-C_6)alkenyl, -C(=O)NH_2, (C_1-C_6)alkoxy, (C_1-C_6)haloalkyl, (C_1-C_6)hydroxyalkyl, and (C_1-C_6)haloalkoxy; wherein (C_1-C_6)alkyl is optionally substituted with phenyl or –NHR^{2a}.

18. The compound of claim 17, wherein R^2 is unsubstituted pyridin-2(1H)-one or pyridine oxide.

19. The compound of claim 17, wherein R^2 is pyrazin-2(1H)-one optionally substituted with (C_1-C_6)hydroxyalkyl.

20. The compound of any one of claims 1 and 3 to 19, wherein R^{2a} is methyl.

21. The compound of any one of claims 1 to 19, wherein R^{2a} is cyclobutyl optionally substituted with at least one fluoro.

22. The compound of any one of claims 1 to 21, wherein R^3 and R^4 are each hydrogen or R^3 and R^4 are each methyl.

23. The compound of any one of claims 1 to 21, wherein R^3 is hydrogen and R^4 is trifluoromethyl.

24. The compound of any one of claims 1 to 21, wherein R^3 and R^4 taken together with the carbon atom to which they are attached form cyclopropyl or cyclobutyl.

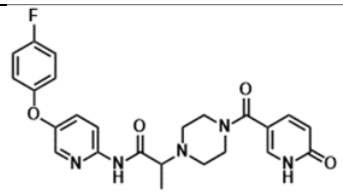
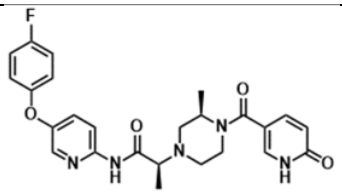
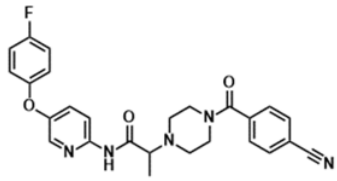
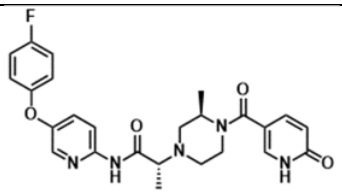
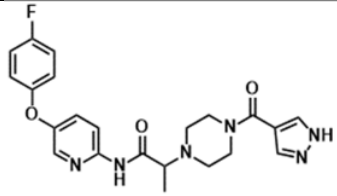
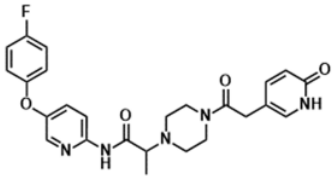
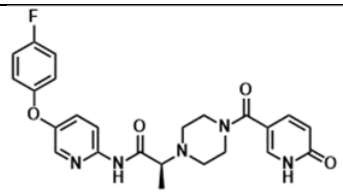
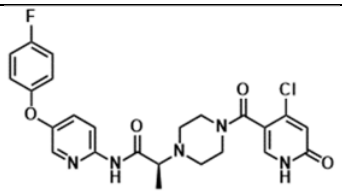
25. The compound of any one of claims 1 to 24, wherein R^5 is hydrogen.

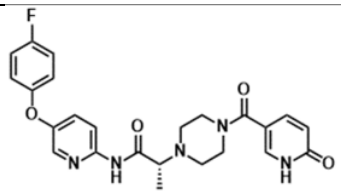
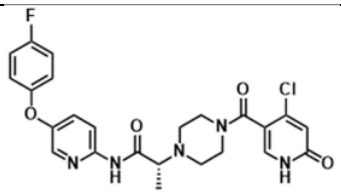
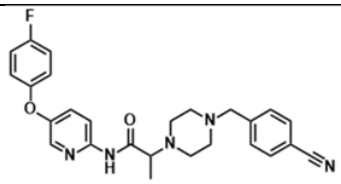
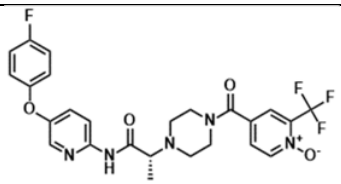
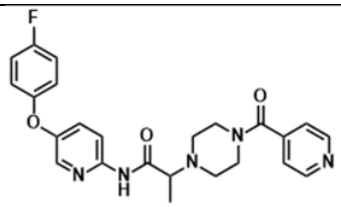
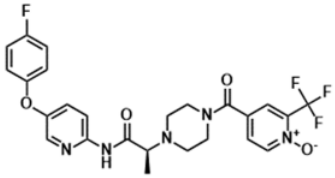
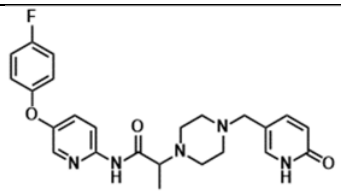
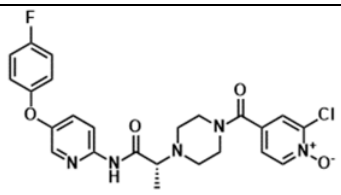
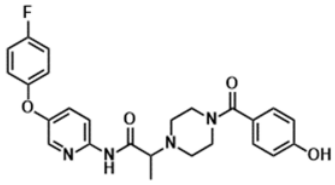
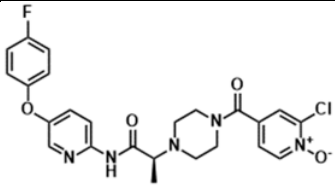
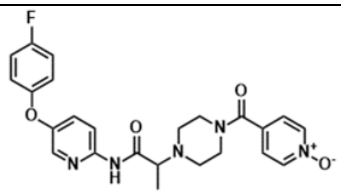
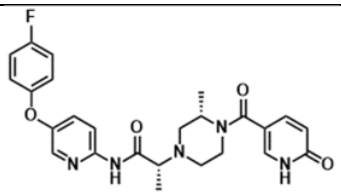
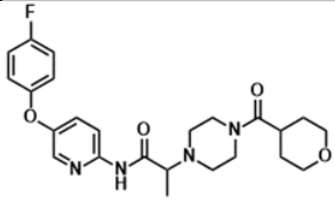
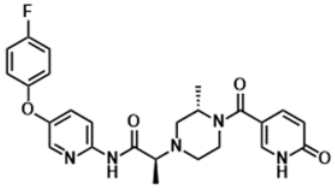
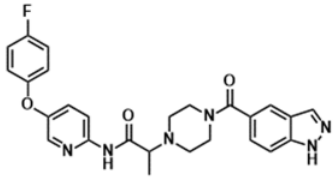
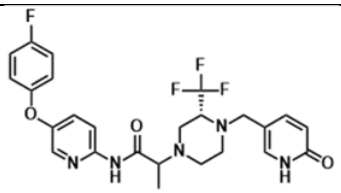
26. The compound of any one of claims 1 to 21, wherein R^5 taken together with one of R^3 or R^4 forms $–(CH_2)_2–$.

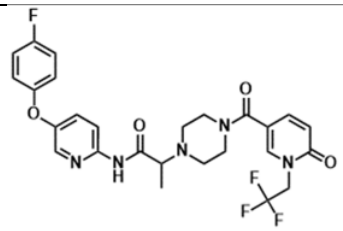
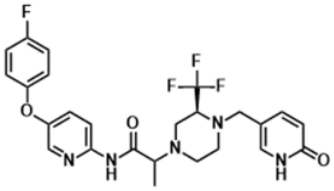
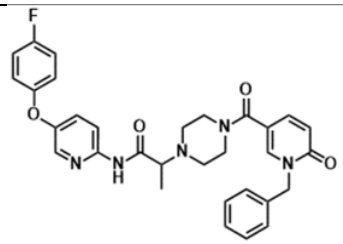
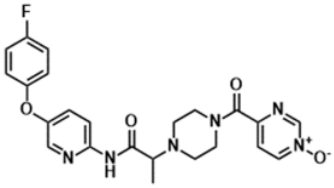
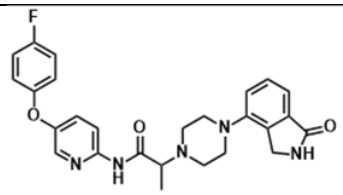
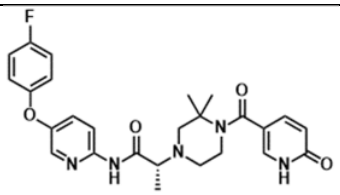
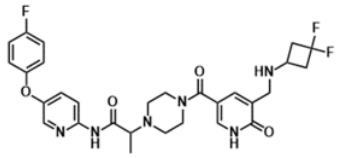
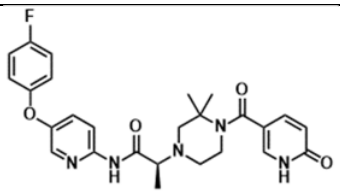
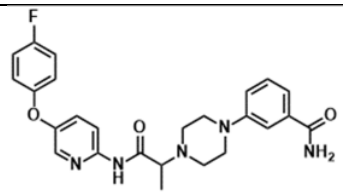
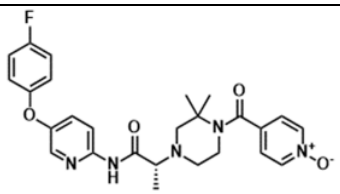
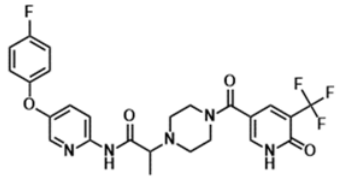
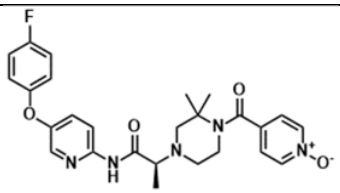
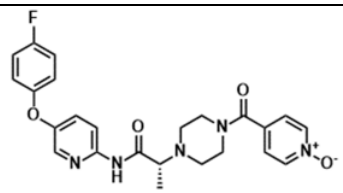
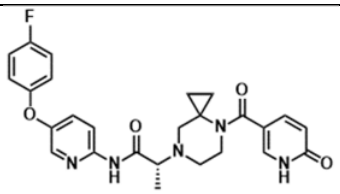
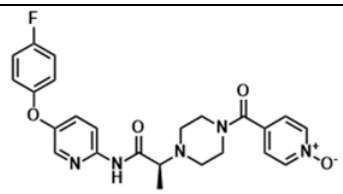
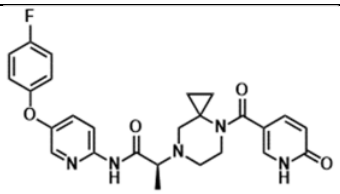
27. The compound of any one of claims 1 to 26, wherein R^6 is hydrogen and R^7 is $(C_1$-$C_6)$alkyl.

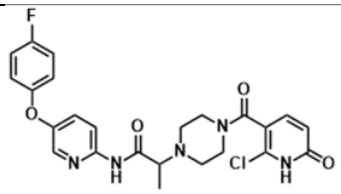
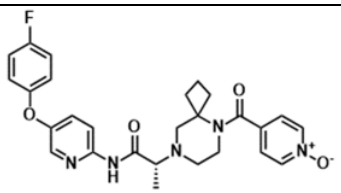
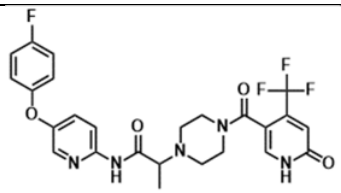
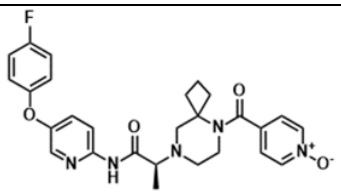
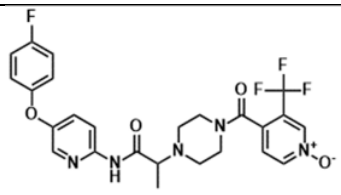
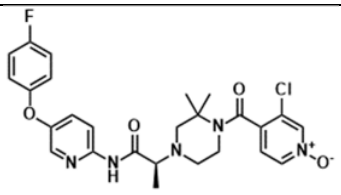
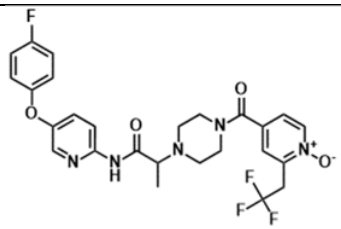
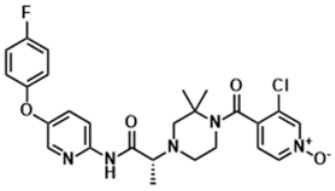
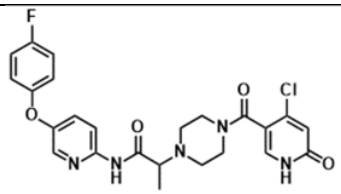
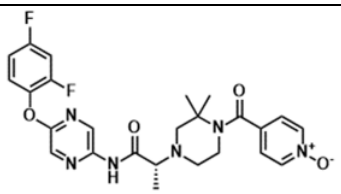
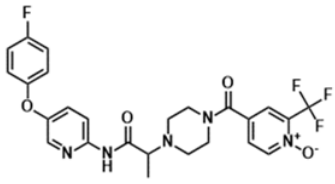
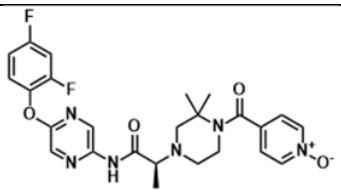
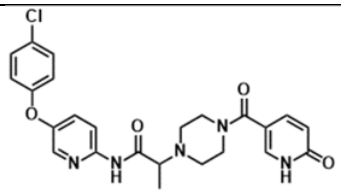
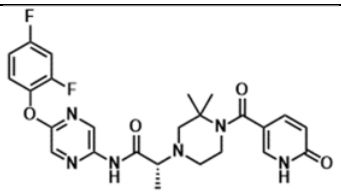
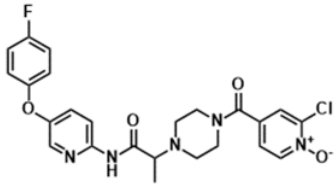
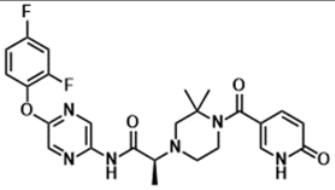
28. The compound of any one of claims 1 to 26, wherein each of R^6 and R^7 are hydrogen or each of R^6 and R^7 is $(C_1$-$C_6)$alkyl.

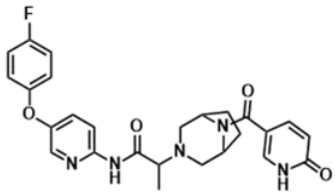
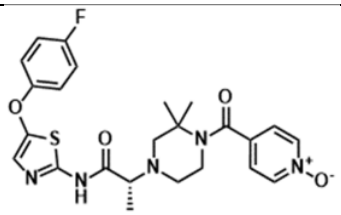
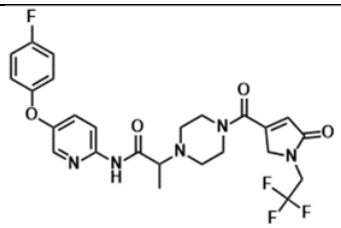
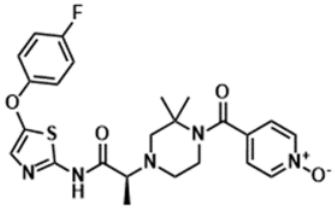
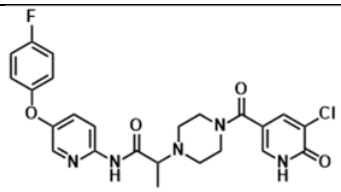
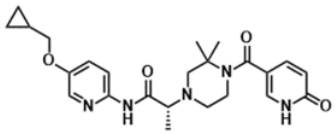
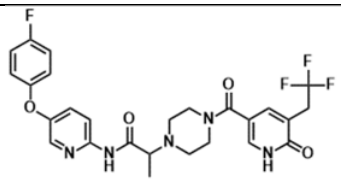
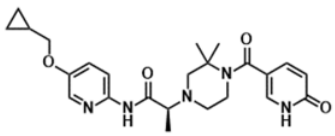
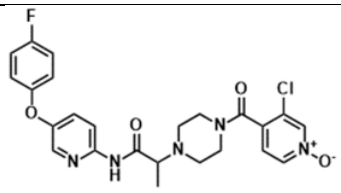
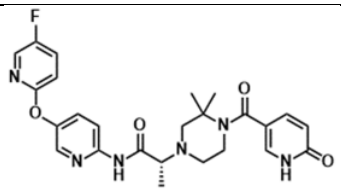
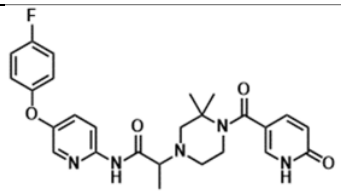
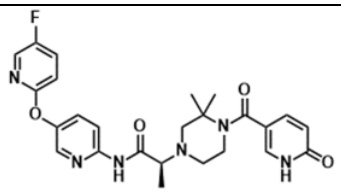
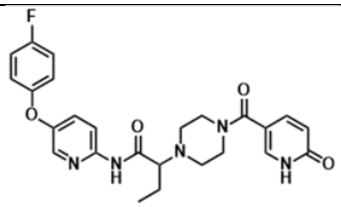
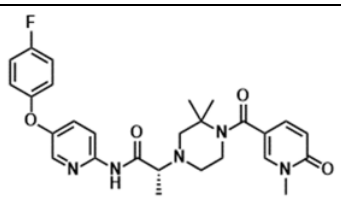
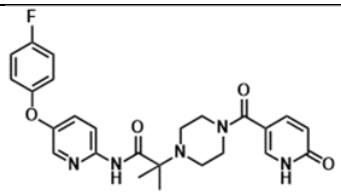
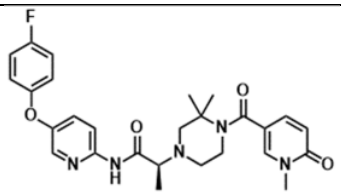
29. A compound having the structure:

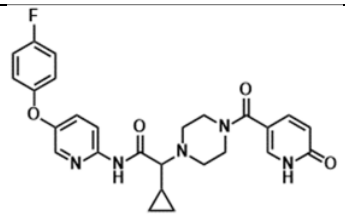
Structure	Example	Structure	Example
	**1**		**38**
	**2**		**39**
	**3**		**40**
	**4**		**41**

	**5**		**42**
	**6**		**43**
	**7**		**44**
	**8**		**45**
	**9**		**46**
	**10**		**47**
	**11**		**48**
	**12**		**49**

	**13**		**50**
	**14**		**51**
	**15**		**52**
	**16**		**53**
	**17**		**54**
	**18**		**55**
	**19**		**56**
	**20**		**57**

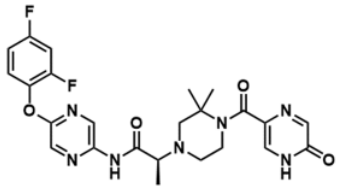
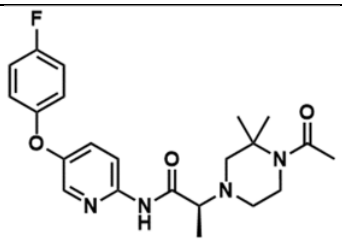
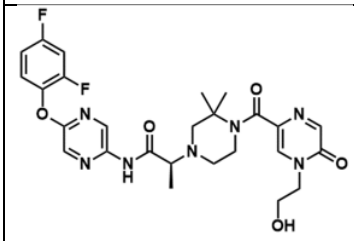
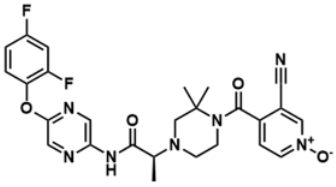
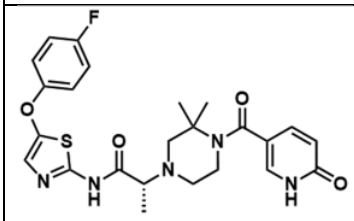
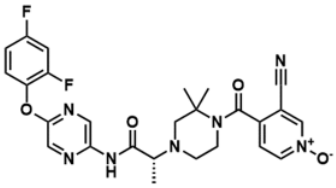
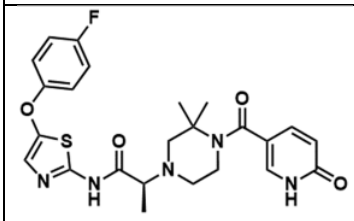
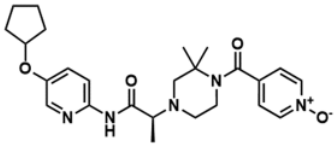
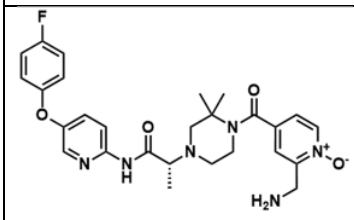
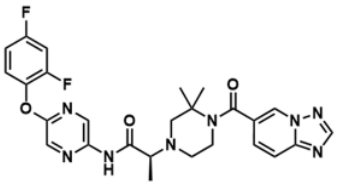
	**21**		**58**
	**22**		**59**
	**23**		**60**
	**24**		**61**
	**25**		**62**
	**26**		**63**
	**27**		**64**
	**28**		**65**

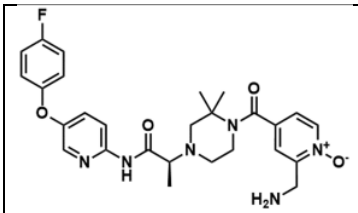
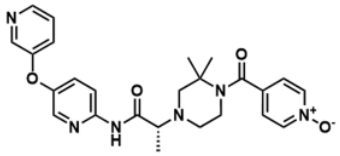
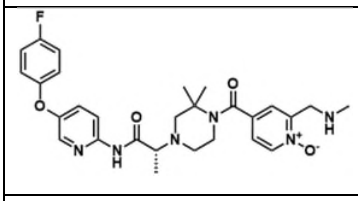
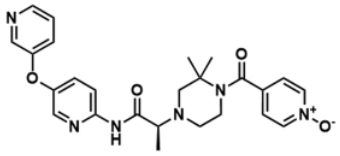
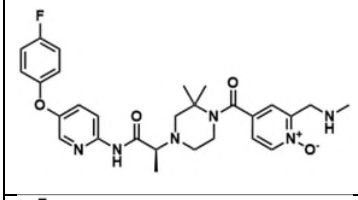
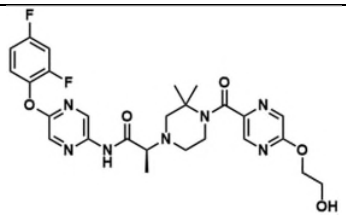
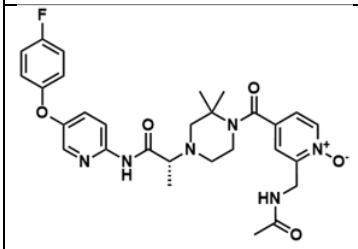
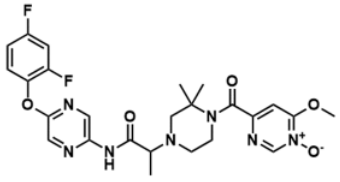
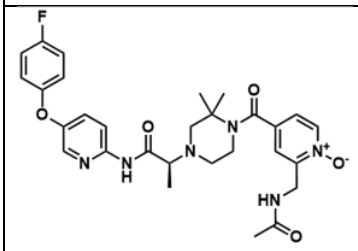
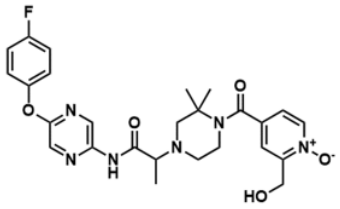
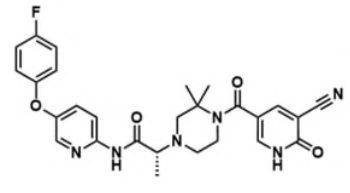
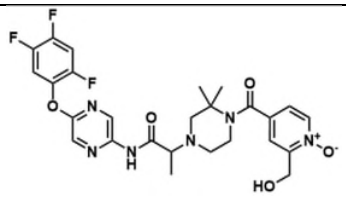
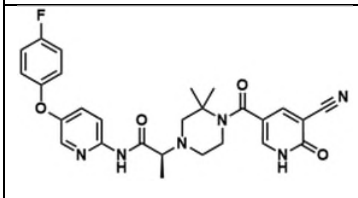
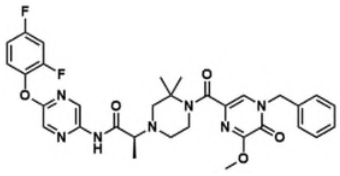
	**29**		**66**
	**30**		**67**
	**31**		**68**
	**32**		**69**
	**33**		**70**
	**34**		**71**
	**35**		**72**
	**36**		**73**

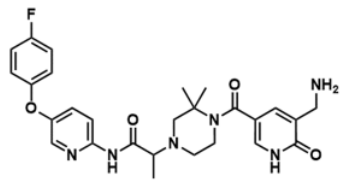
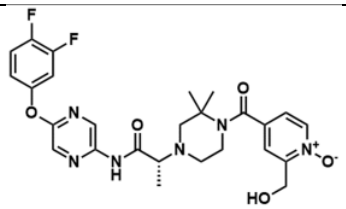
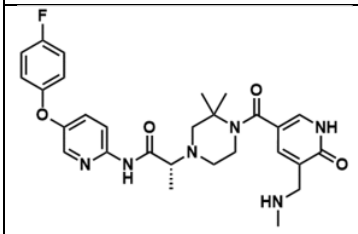
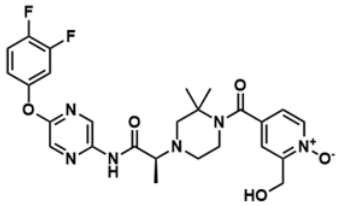
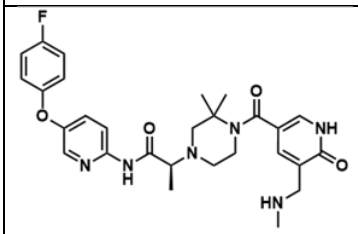
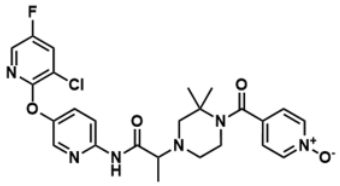
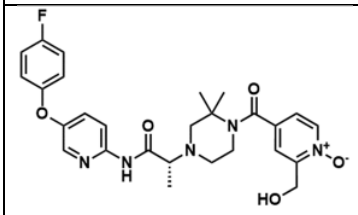
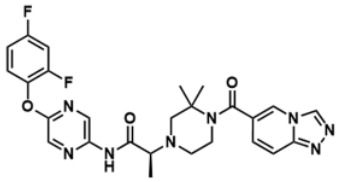
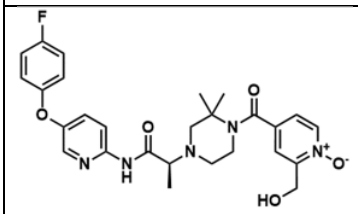
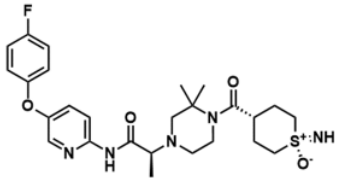
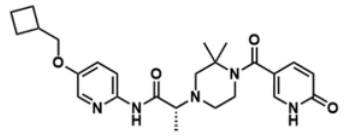
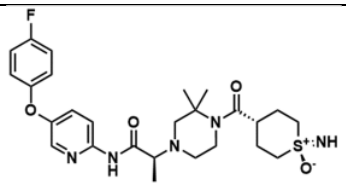
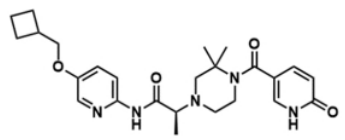
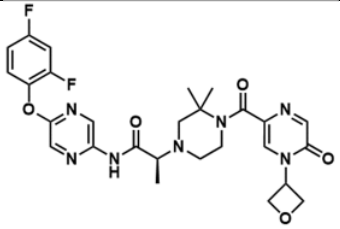
	**37**		

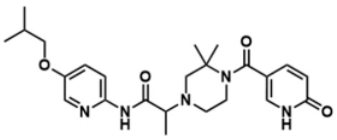
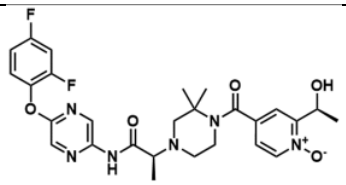
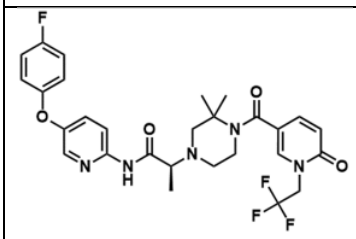
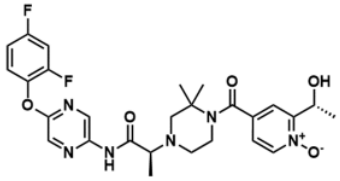
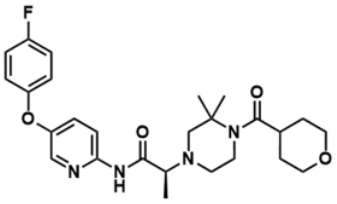
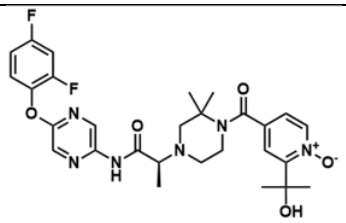
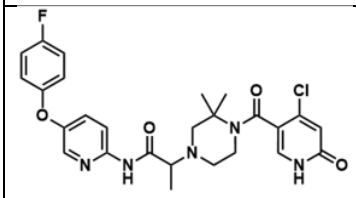
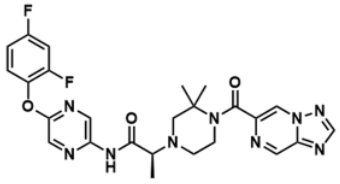
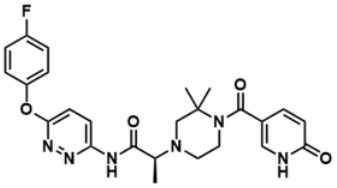
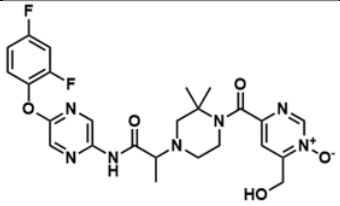
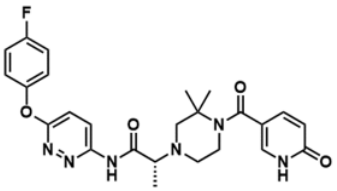
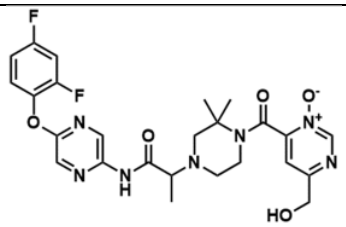
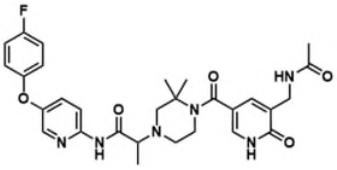
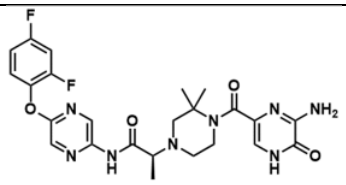
or a pharmaceutically acceptable salt thereof.

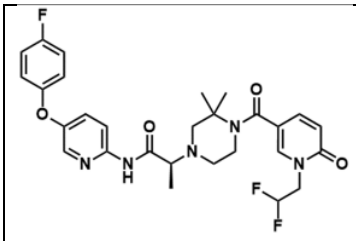
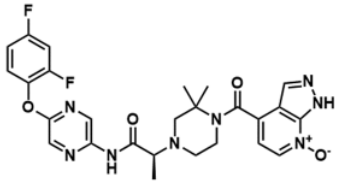
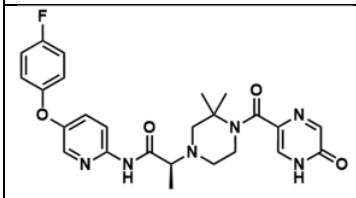
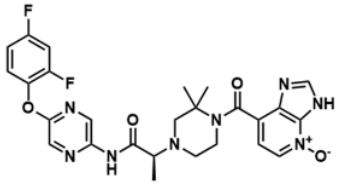
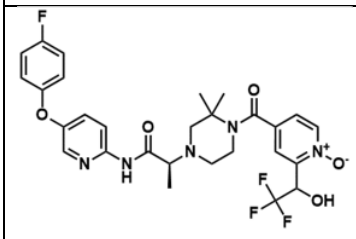
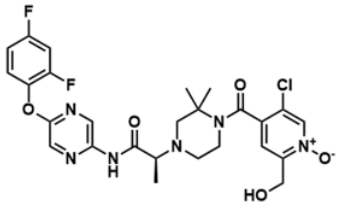
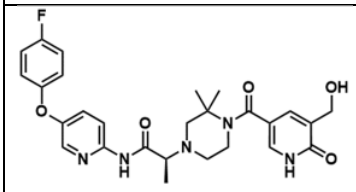
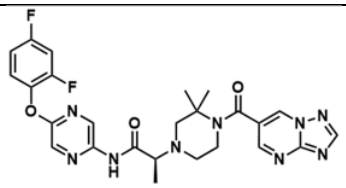
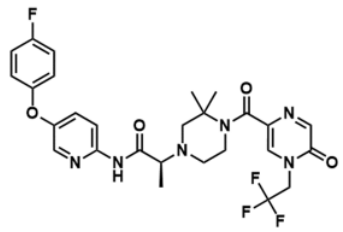
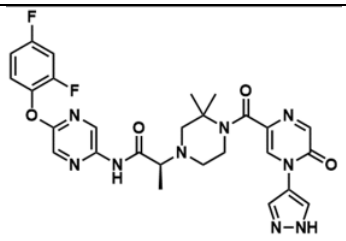
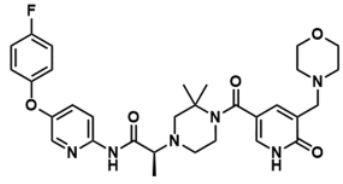
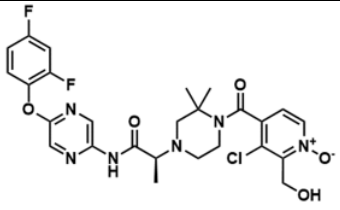
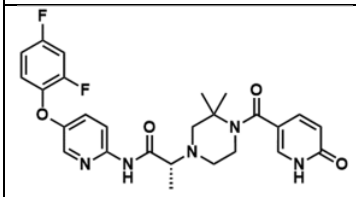
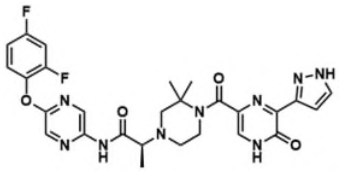
30. A compound having the structure:

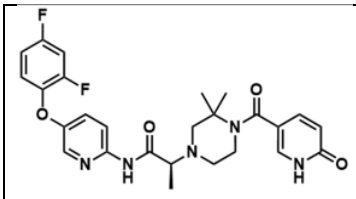
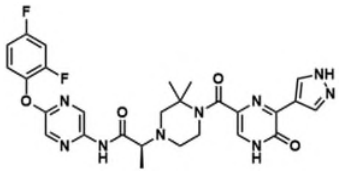
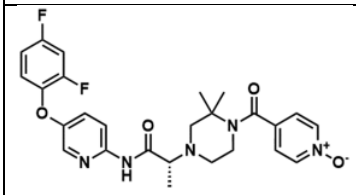
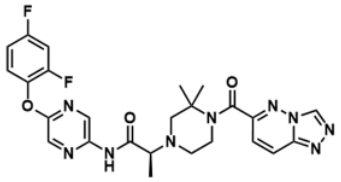
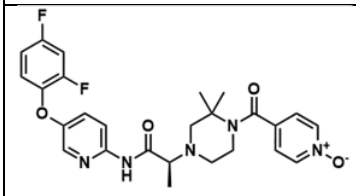
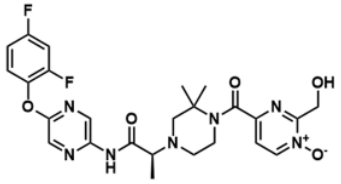
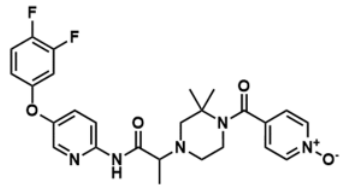
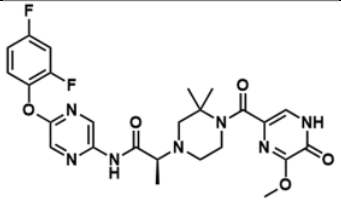
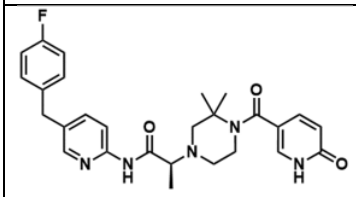
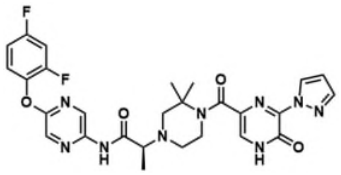
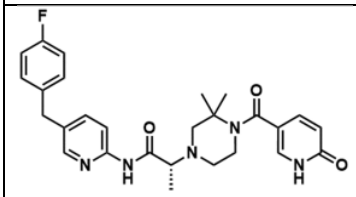
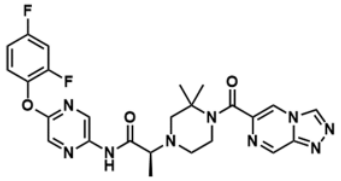
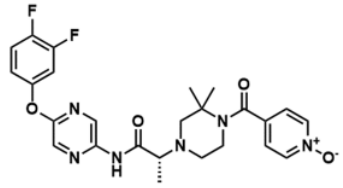
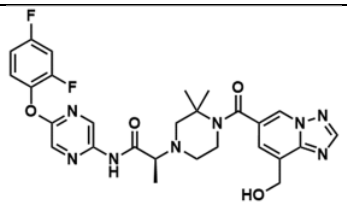
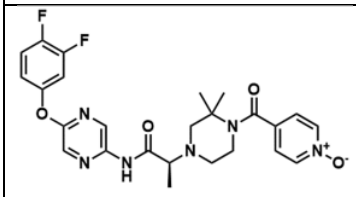
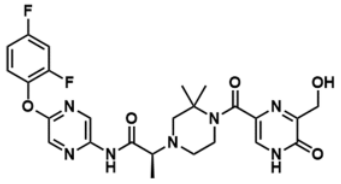
	**74**		**167**
	**75**		**168**
	**76**		**169**
	**77**		**170**
	**78**		**171**

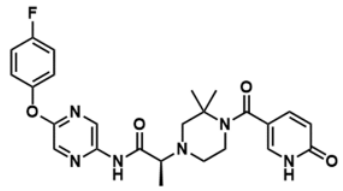
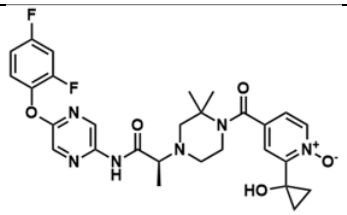
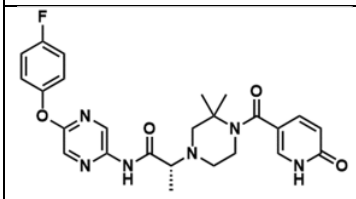
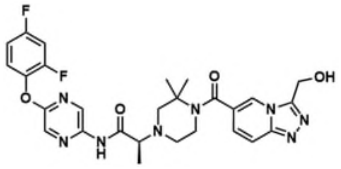
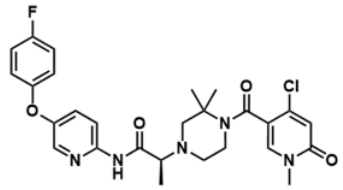
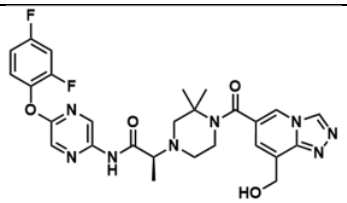
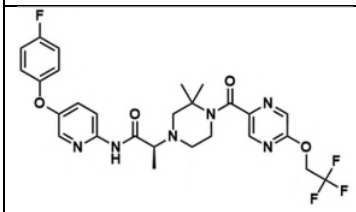
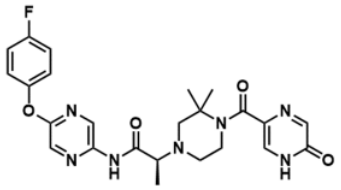
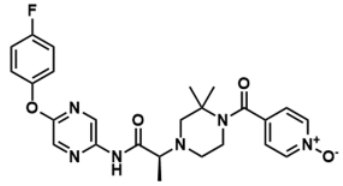
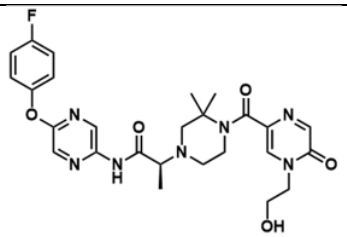
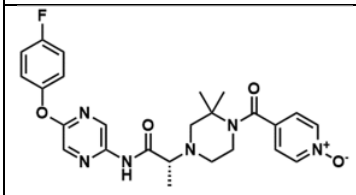
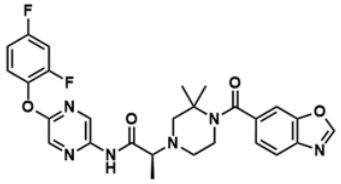
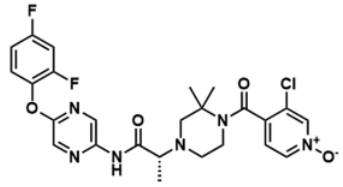
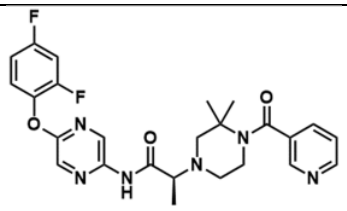
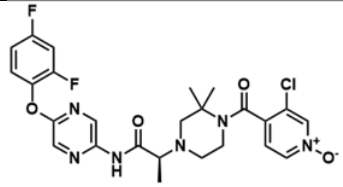
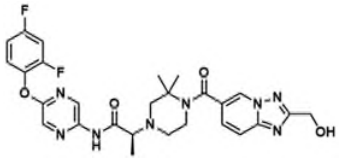
	**79**		**172**
	**80**		**173**
	**81**		**174**
	**82**		**175**
	**83**		**176**
	**84**		**177**
	**85**		**178**

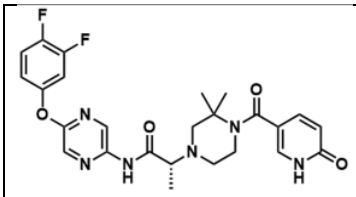
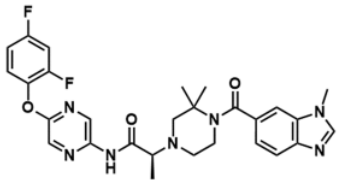
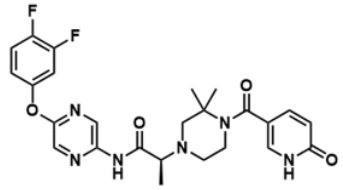
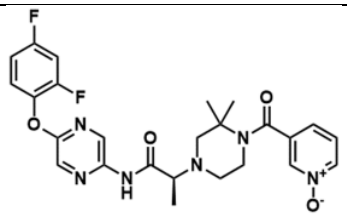
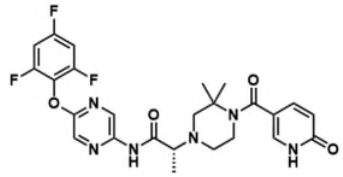
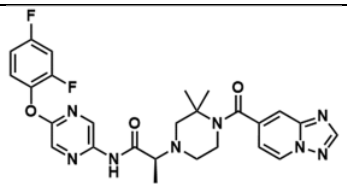
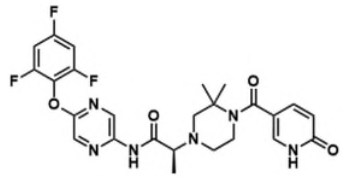
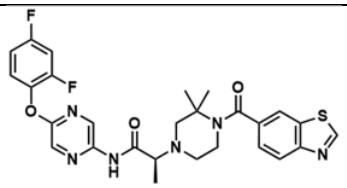
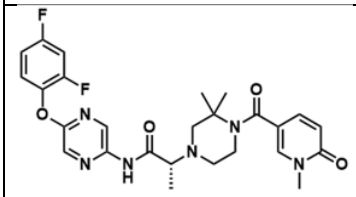
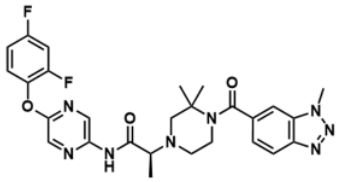
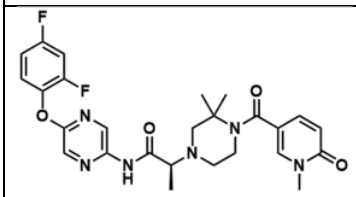
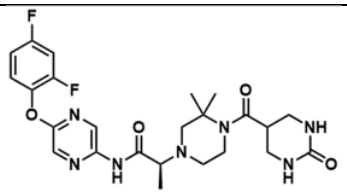
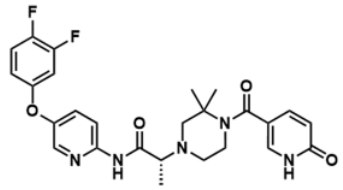
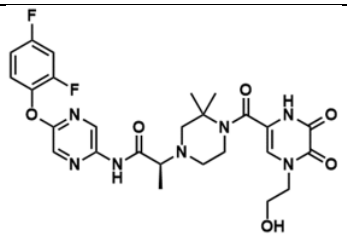
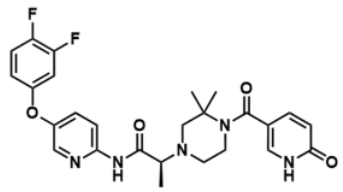
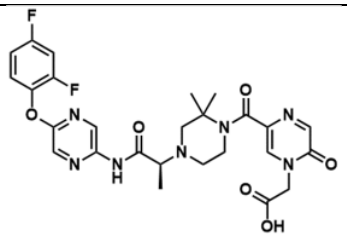
	**86**		**179**
	**87**		**180**
	**88**		**181**
	**89**		**182**
	**90**		**183**
	**91**		**184**
	**92**		**185**

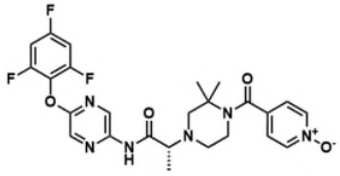
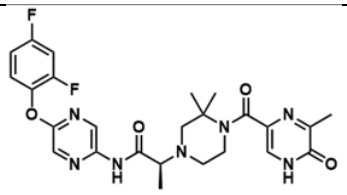
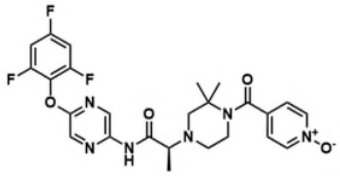
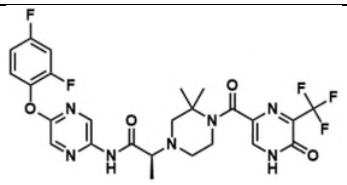
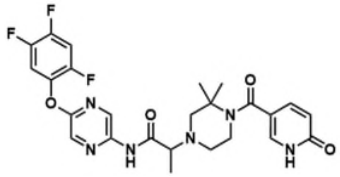
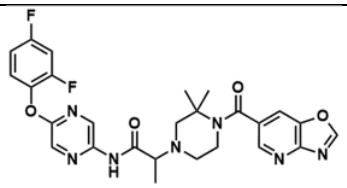
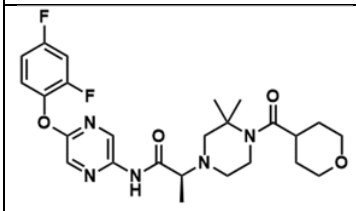
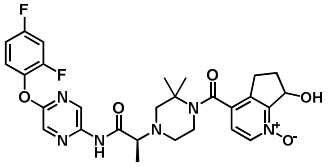
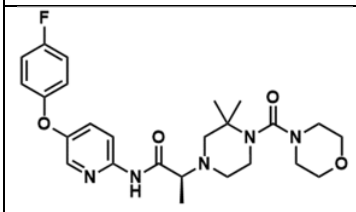
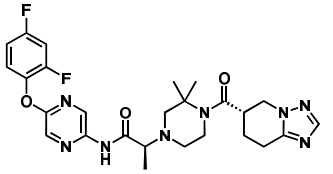
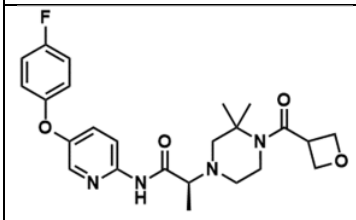
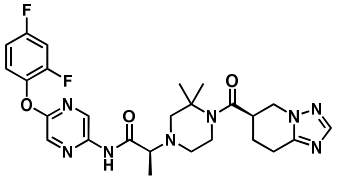
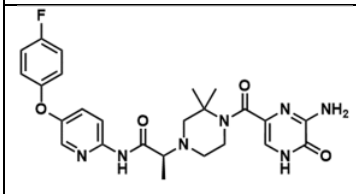
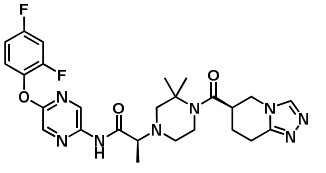
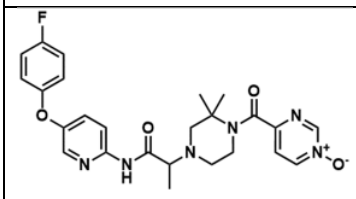
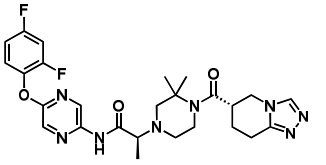
	**93**		**186**
	**94**		**187**
	**95**		**188**
	**96**		**189**
	**97**		**190**
	**98**		**191**
	**99**		**192**

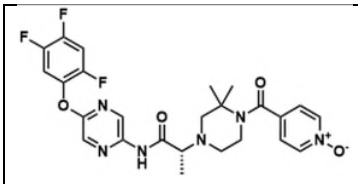
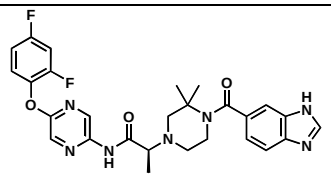
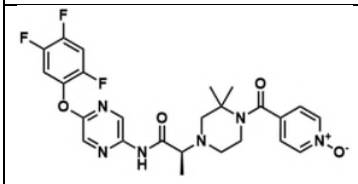
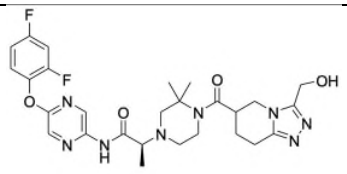
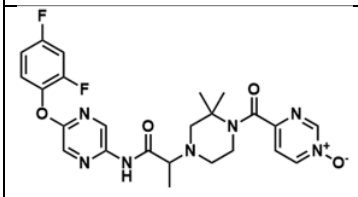
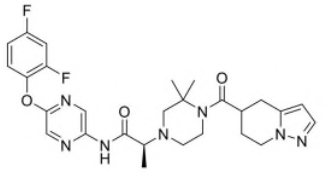
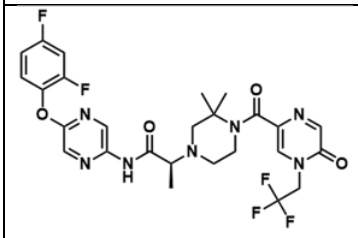
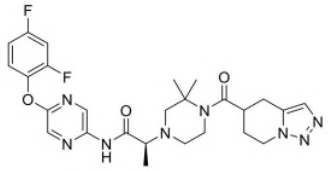
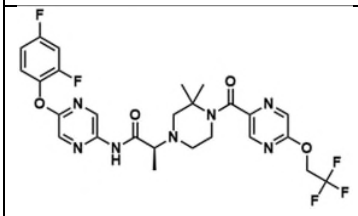
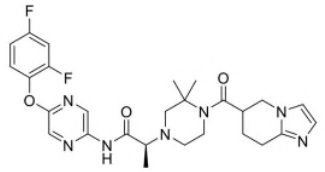
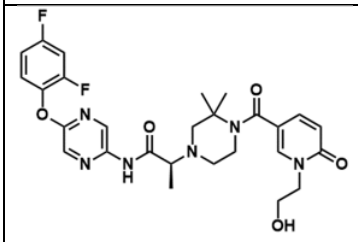
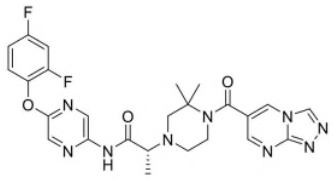
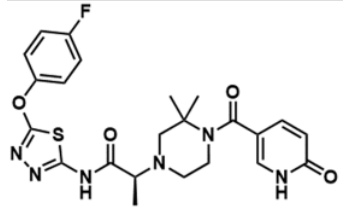
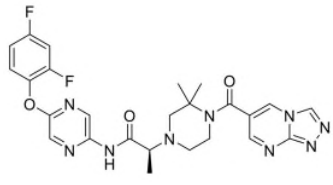
	**100**		**193**
	**101**		**194**
	**102**		**195**
	**103**		**196**
	**104**		**197**
	**105**		**198**
	**106**		**199**

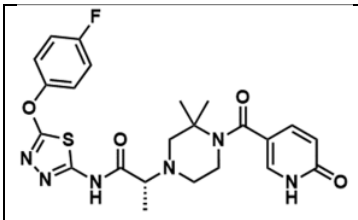
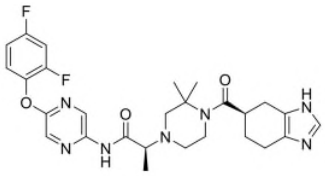
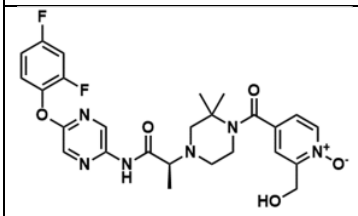
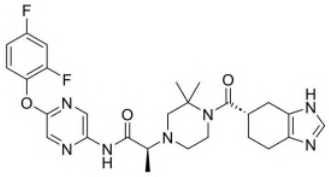
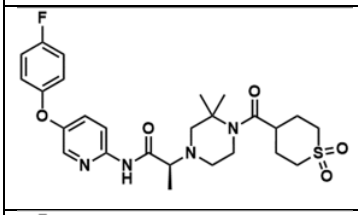
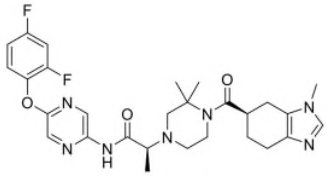
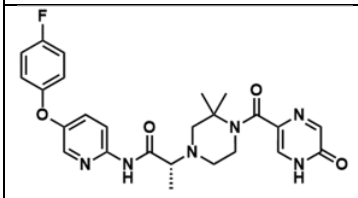
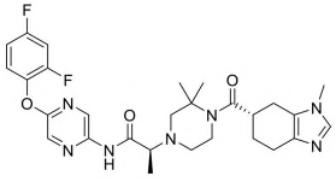
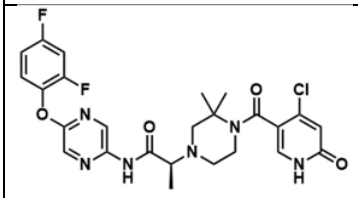
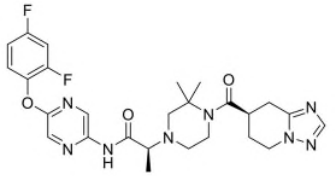
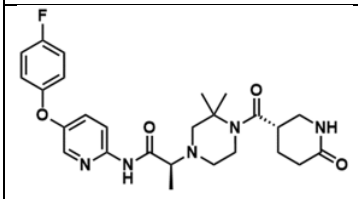
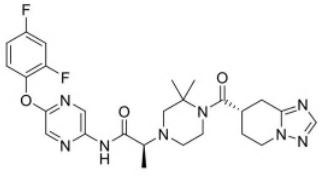
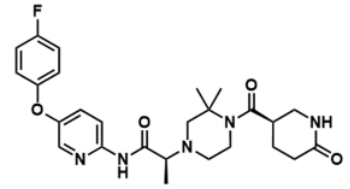
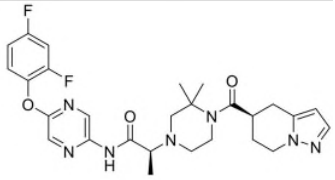
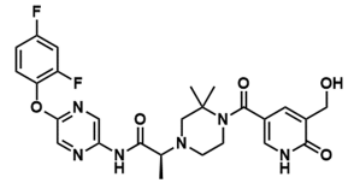
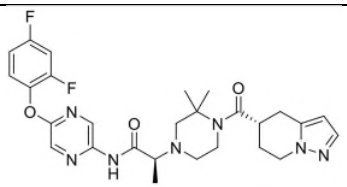
	**107**		**200**
	**108**		**201**
	**109**		**202**
	**110**		**203**
	**111**		**204**
	**112**		**205**
	**113**		**206**
	**114**		**207**

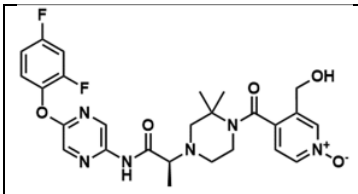
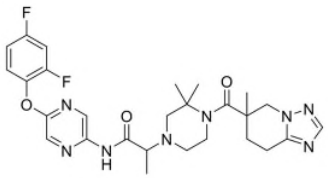
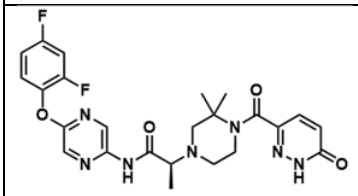
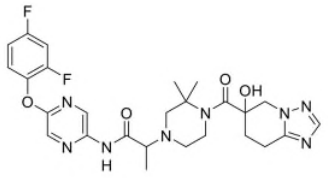
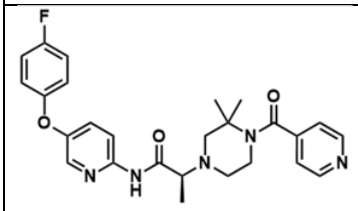
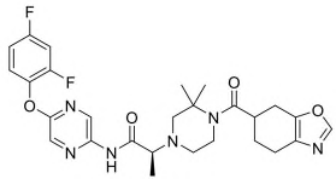
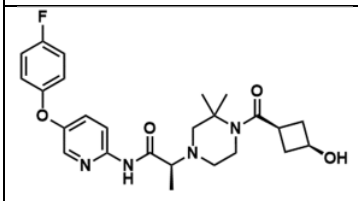
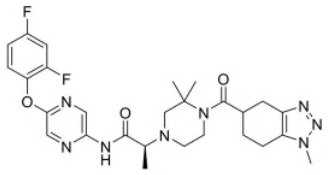
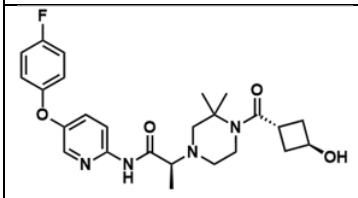
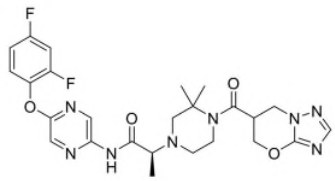
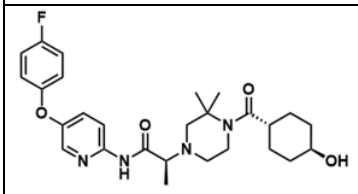
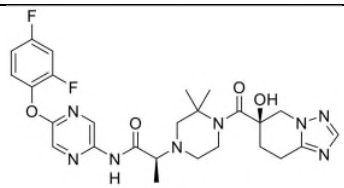
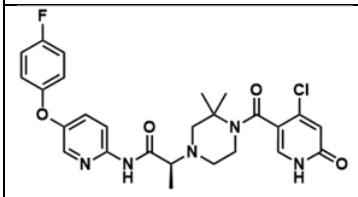
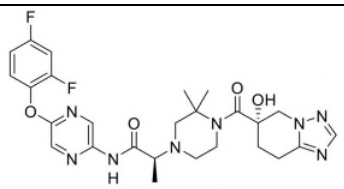
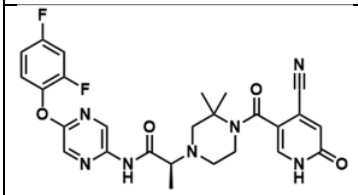
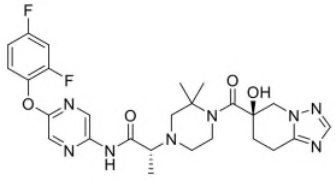
	**115**		**208**
	**116**		**209**
	**117**		**210**
	**118**		**211**
	**119**		**212**
	**120**		**213**
	**121**		**214**
	**122**		**215**

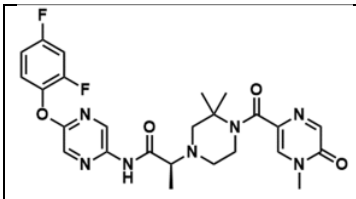
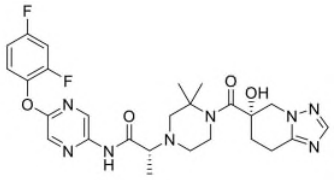
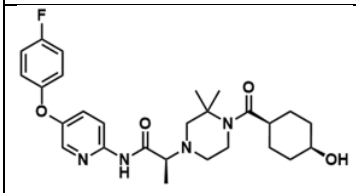
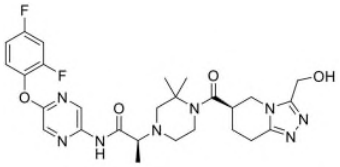
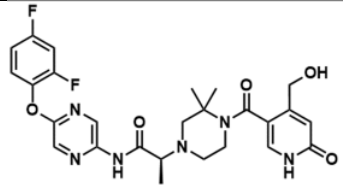
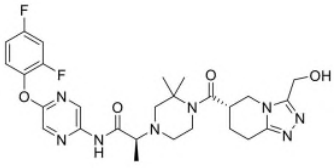
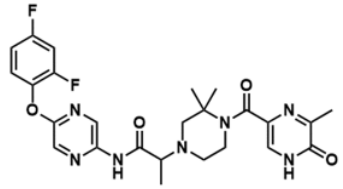
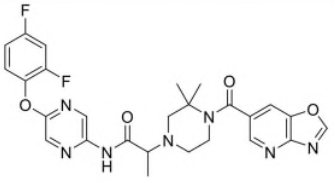
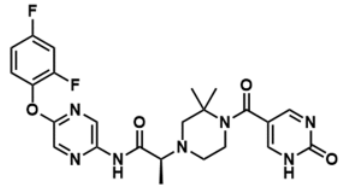
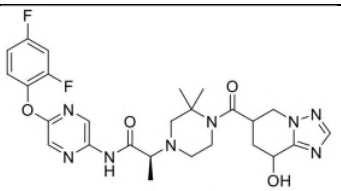
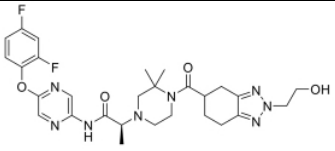
	**123**		**216**
	**124**		**217**
	**125**		**218**
	**126**		**219**
	**127**		**220**
	**128**		**221**
	**129**		**222**
	**130**		**223**

	**131**		**224**
	**132**		**225**
	**133**		**226**
	**134**		**227**
	**135**		**228**
	**136**		**229**
	**137**		**230**
	**138**		**231**

	**139**		**232**
	**140**		**233**
	**141**		**234**
	**142**		**235**
	**143**		**236**
	**144**		**237**
	**145**		**238**

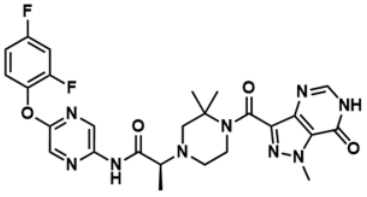
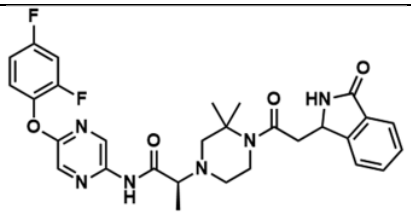
	**146**		**239**
	**147**		**240**
	**148**		**241**
	**149**		**242**
	**150**		**243**
	**151**		**244**
	**152**		**245**
	**153**		**246**

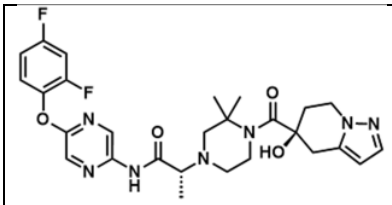
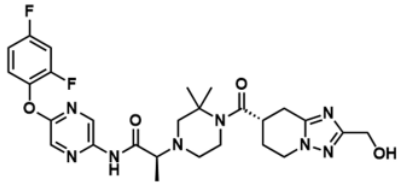
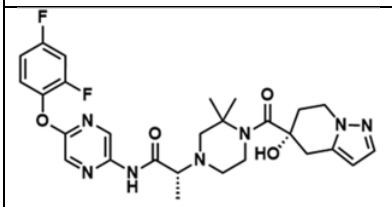
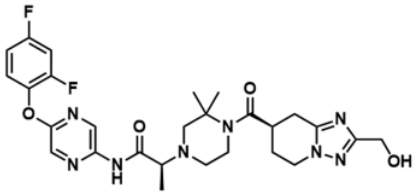
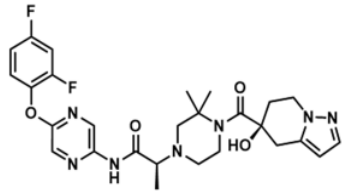
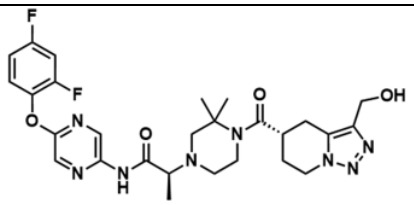
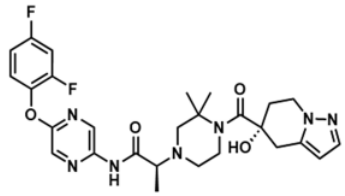
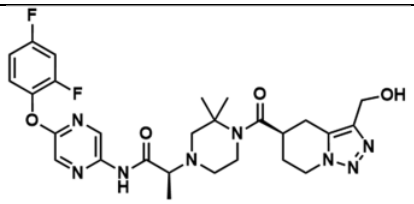
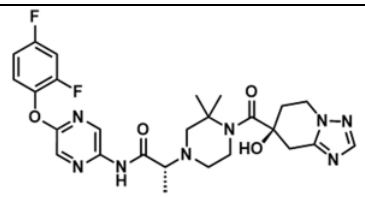
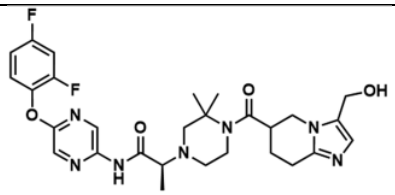
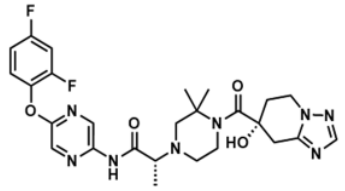
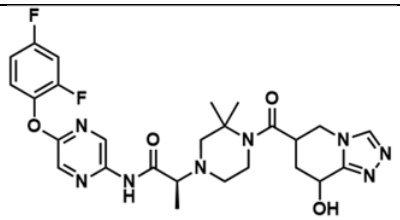
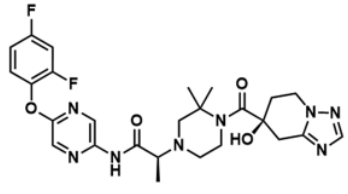
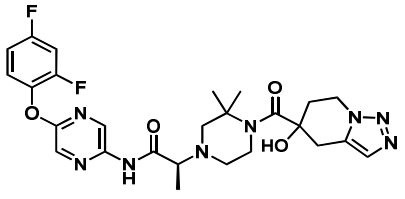
	**154**		**247**
	**155**		**248**
	**156**		**249**
	**157**		**250**
	**158**		**251**
	**159**		**252**
	**160**		**253**
	**161**		**254**

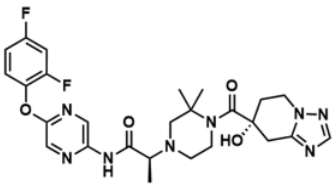
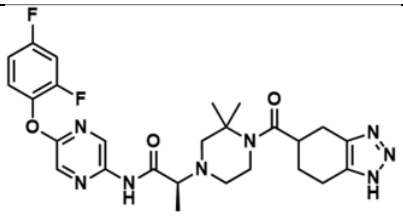
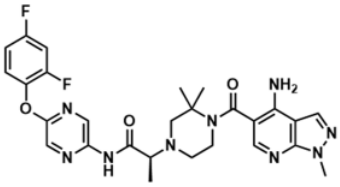
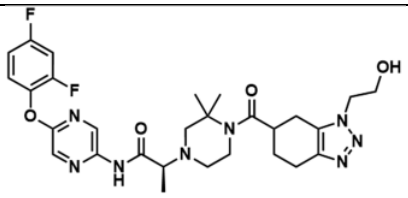
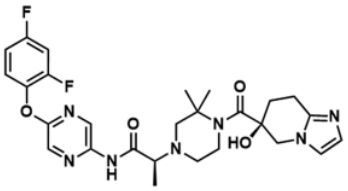
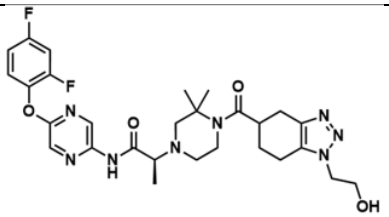
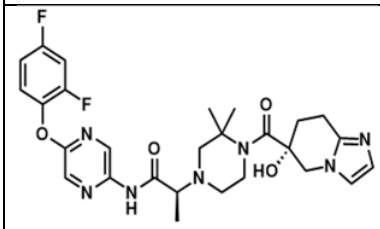
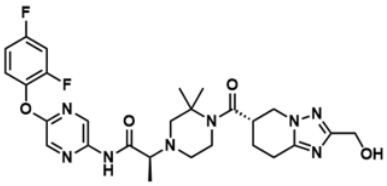
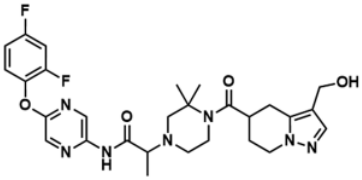
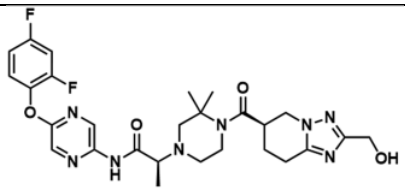
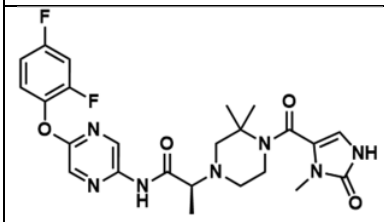
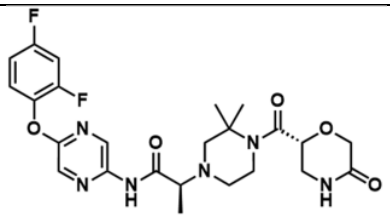
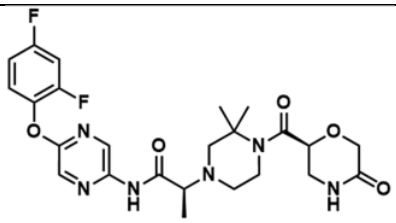
	**162**		**255**
	**163**		**256**
	**164**		**257**
	**165**		**258**
	**166**		**259**
			**260**

or a pharmaceutically acceptable salt thereof.

31. A compound having the structure:

Structure	Example	Structure	Example
	**261**		**275**

	**262**		**276**
	**263**		**277**
	**264**		**278**
	**265**		**279**
	**266**		**280**
	**267**		**281**
	**268**		**282**

	**269**		**283**
	**270**		**284**
	**271**		**285**
	**272**		**286**
	**273**		**287**
	**274**		**288**
			**289**

or a pharmaceutically acceptable salt thereof.

32. Use of the compound of any one of claims 1-31 in the manufacture of a medicament for preventing or treating an MRGPRX2-mediated disease or disorder, wherein the MRGPRX2-mediated disease or disorder is selected from the group consisting of chronic spontaneous urticaria, prurigo nodularis, irritable bowel syndrome, chronic inducible urticaria, atopic dermatitis, osteoarthritis, rosacea, migraine, pseudo-anaphylaxis, mast cell activation syndrome, mastocytosis, pruritus, neurodermatitis, contact urticaria, allergic rhinitis, asthma, acute contact dermatitis, ulcerative colitis, Crohn's disease, idiopathic chronic cough, rheumatoid arthritis, multiple sclerosis, geographic atrophy, endometriosis, seborrheic dermatitis, psoriasis, chronic obstructive pulmonary disease, idiopathic pulmonary fibrosis, neuropathic itch, periodontitis, autism, abdominal aortic aneurysms, deep vein thrombosis, amyotrophic lateral sclerosis, interstitial cystitis, coronary artery disease, cancer, sickle cell disease, obesity, and ulcers.

33. The compound of any one of claims 1-31, for use in therapy.