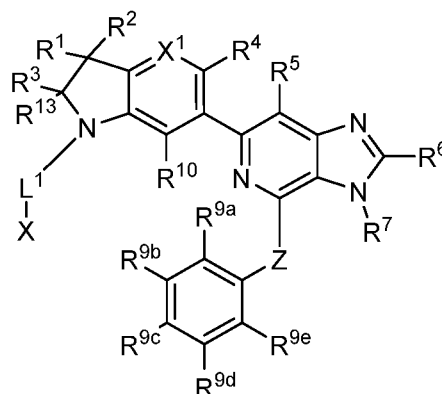


WHAT IS CLAIMED IS:

1. A compound of Formula I,



Formula I

or a pharmaceutically acceptable salt thereof,

wherein:

one of R¹ and R² is H, -CN, -OH, halogen, or C₁₋₆ alkyl, and the other of R¹ and R² is H, halogen, or C₁₋₆ alkyl, wherein each C₁₋₆ alkyl is optionally substituted with 1-3 groups independently selected from -OH and halogen, or

R¹ and R² together with the carbon to which they are attached form a C₃₋₇ monocyclic cycloalkyl or a 4-6 membered monocyclic heterocyclyl having 1 or 2 heteroatoms independently selected from N, O, and S, wherein the C₃₋₇ monocyclic cycloalkyl and the 4-6 membered monocyclic heterocyclyl are each optionally substituted with one R¹¹ and are each optionally substituted with 1-3 groups independently selected from -OH, halogen, oxo, C₁₋₃ alkyl, and C₁₋₃ alkoxy, or

R¹ and R² together form =O;

R¹¹ is

- i) 4-6 membered monocyclic heterocyclyl having 1 or 2 heteroatoms independently selected from N, O, and S, wherein the 4-6 membered monocyclic heterocyclyl is optionally substituted with 1-3 groups independently selected from -CN, -OH, halogen, oxo, C₁₋₃ alkyl, and C₁₋₃ alkoxy,
- ii) -S(O)₂C₁₋₆ alkyl,
- iii) -S(O)₂C₃₋₇ monocyclic cycloalkyl,
- iv) C₁₋₆ alkyl optionally substituted with 1-3 groups independently selected from -CN, -OH, halogen, C₁₋₃ alkoxy, and C₃₋₇ monocyclic cycloalkyl, or
- v) -C(O)R²¹;

R²¹ is

- i) H,
- ii) C₃₋₇ monocyclic or bridged bicyclic cycloalkyl optionally substituted with 1-3 groups independently selected from -CN, -OH, halogen, C₁₋₃ alkyl, and C₁₋₃ alkoxy, wherein the C₁₋₃ alkyl is optionally substituted with 1-3 groups independently selected from -OH, halogen, and C₁₋₃ alkoxy,
- iii) 4-6 membered monocyclic heterocyclyl having 1 or 2 heteroatoms independently selected from N, O, and S, wherein the 4-6 membered monocyclic heterocyclyl is optionally substituted with 1-3 groups independently selected from -CN, -OH, halogen, oxo, C₁₋₃ alkyl, and C₁₋₃ alkoxy,
- iv) 5-6 membered monocyclic heteroaryl having 1-4 heteroatoms independently selected from N, O, and S, wherein the 5-6 membered monocyclic heteroaryl is optionally substituted with 1-3 groups independently selected from -CN, -OH, halogen, C₁₋₃ alkyl, and C₁₋₃ alkoxy,
- v) -NH₂,
- vi) -NH(C₁₋₆ alkyl), wherein the C₁₋₆ alkyl is optionally substituted with 1-3 groups independently selected from -CN, -OH, halogen, and C₁₋₃ alkoxy,
- vii) -N(C₁₋₆ alkyl)₂, wherein each C₁₋₆ alkyl can be the same or different and wherein each C₁₋₆ alkyl is optionally substituted with 1-3 groups independently selected from -CN, -OH, halogen, and C₁₋₃ alkoxy,
- viii) C₁₋₆ alkoxy optionally substituted with 1-3 groups independently selected from -OH, halogen, C₁₋₃ alkyl, and C₃₋₇ monocyclic cycloalkyl, or
- ix) C₁₋₆ alkyl optionally substituted with 1-3 groups independently selected from
 - a) -CN,
 - b) -OH,
 - c) halogen,
 - d) C₁₋₃ alkoxy,
 - e) C₃₋₇ monocyclic cycloalkyl optionally substituted with 1-3 groups independently selected from -CN, -OH, halogen, C₁₋₃ alkyl, and C₁₋₃ alkoxy,
 - f) 4-6 membered monocyclic heterocyclyl having 1 or 2

heteroatoms independently selected from N, O, and S, wherein the 4-6 membered monocyclic heterocyclyl is optionally substituted with 1-3 groups independently selected from -CN, -OH, halogen, oxo, C₁₋₃ alkyl, and C₁₋₃ alkoxy, and

g) -OC(O)C₁₋₆ alkyl optionally substituted with one -OH;

R³ and R¹³ are each H, or

R³ and R¹³ together form =O;

L¹ is a cyclobutylene optionally substituted with 1-6 groups independently selected from -OH, halogen, C₁₋₃ alkyl, and C₁₋₃ alkoxy;

X is -NR¹⁵R¹⁶, wherein R¹⁵ and R¹⁶ are independently

- i) H,
- ii) C₃₋₇ monocyclic cycloalkyl optionally substituted with 1-3 groups independently selected from -OH, halogen, C₁₋₃ alkyl, and C₁₋₃ alkoxy,
- iii) 4-7 membered monocyclic heterocyclyl having 1 or 2 heteroatoms independently selected from N, O, and S, wherein the 4-6 membered monocyclic heterocyclyl is optionally substituted with 1-3 groups independently selected from -OH, halogen, oxo, C₁₋₃ alkyl, and C₁₋₃ alkoxy,
- iv) -C(O)C₁₋₆ alkyl, wherein the C₁₋₆ alkyl is optionally substituted with 1-3 groups independently selected from -CN, -OH, halogen, and C₁₋₃ alkoxy, or
- v) C₁₋₆ alkyl optionally substituted with 1-6 groups independently selected from
 - a) -CN,
 - b) -OH,
 - c) halogen,
 - d) C₁₋₃ alkoxy,
 - e) C₃₋₇ monocyclic cycloalkyl optionally substituted with 1-3 groups independently selected from -OH, halogen, C₁₋₃ alkyl, and C₁₋₃ alkoxy, and
 - f) 5-6 membered monocyclic heterocyclyl having 1 or 2 heteroatoms independently selected from N, O, and S, wherein the 5-6 membered monocyclic heterocyclyl is optionally substituted with 1-3 groups independently selected from -OH, halogen, oxo, C₁₋₃ alkyl, and C₁₋₃ alkoxy; or

X is a 4-10 membered monocyclic, fused bicyclic, bridged bicyclic, or spirocyclic heterocyclyl having 1-3 heteroatoms independently selected from N, O, and S,

wherein the 4-10 membered monocyclic, fused bicyclic, bridged bicyclic, or spirocyclic heterocyclyl is optionally substituted with 1-5 R¹⁸;

each R¹⁸ is independently

- i) -CN,
- ii) a halogen,
- iii) -OH,
- iv) C₁₋₆ alkoxy optionally substituted with 1-3 groups independently selected from -OH, halogen, C₁₋₃ alkoxy, and C₃₋₇ monocyclic cycloalkyl,
- v) C₁₋₆ alkyl optionally substituted with 1-3 groups independently selected from -OH, halogen, C₁₋₃ alkoxy, and C₃₋₇ monocyclic cycloalkyl,
- vi) -COOH, or
- vii) -C(O)N(R²²)₂, wherein each R²² is independently H or C₁₋₆ alkyl;

X¹ is N or CR¹⁷;

R⁴, R⁵, R⁶, R¹⁰ and R¹⁷ are each independently H, halogen, C₁₋₃ alkyl, or C₁₋₃ alkoxy;

R⁷ is

- i) H,
- ii) C₁₋₆ alkyl optionally substituted with 1-3 groups independently selected from -OH, halogen, C₁₋₃ alkoxy, and C₃₋₇ monocyclic cycloalkyl, or
- iii) C₃₋₇ monocyclic cycloalkyl optionally substituted with 1-3 groups independently selected from -OH, halogen, C₁₋₃ alkyl, and C₁₋₃ alkoxy;

Z is -O-, -C(R⁸)₂-, or -NR⁸-;

each R⁸ is independently H or C₁₋₃ alkyl;

R^{9a}, R^{9b}, R^{9c}, R^{9d}, and R^{9e} are independently

- i) H,
- ii) halogen,
- iii) C₁₋₆ alkoxy optionally substituted with 1-3 groups independently selected from -OH, halogen, C₁₋₃ alkyl, and C₃₋₇ monocyclic cycloalkyl,
- iv) -NH₂,
- v) -NH(C₁₋₆ alkyl), wherein the C₁₋₆ alkyl is optionally substituted with 1-3 groups independently selected from -OH, halogen, and C₁₋₃ alkoxy,
- vi) -N(C₁₋₆ alkyl)₂, wherein each C₁₋₆ alkyl can be the same or different, and wherein each C₁₋₆ alkyl is optionally substituted with 1-3 groups independently selected from -OH, halogen, and C₁₋₃ alkoxy,
- vii) -P(O)(C₁₋₆ alkyl)₂, wherein each C₁₋₆ alkyl can be the same or different,

and wherein each C₁₋₆ alkyl is optionally substituted with 1-3 groups independently selected from -OH, halogen, and C₁₋₃ alkoxy,

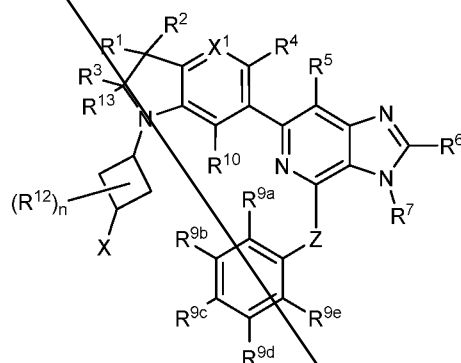
- viii) -S(O)₂C₁₋₆ alkyl,
 - ix) -S(O)₂N(R²³)₂, wherein each R²³ is independently H or C₁₋₆ alkyl,
 - x) C₁₋₆ alkyl optionally substituted with 1-3 groups independently selected from
 - a) -OH,
 - b) halogen,
 - c) C₁₋₃ alkoxy,
 - d) C₃₋₇ monocyclic cycloalkyl,
 - e) 5-6 membered monocyclic heterocyclyl having 1 or 2 heteroatoms independently selected from N, O, and S, wherein the 5-6 membered monocyclic heterocyclyl is optionally substituted with 1-3 groups independently selected from oxo and C₁₋₃ alkyl, and
 - f) -NR²⁰C(O)OC₁₋₃ alkyl, wherein R²⁰ is H or C₁₋₃ alkyl,
 - xi) C₃₋₇ monocyclic cycloalkyl optionally substituted with 1-3 groups independently selected from -OH, halogen, C₁₋₃ alkyl, and C₁₋₃ alkoxy,
 - xii) 5-6 membered monocyclic heteroaryl having 1-4 heteroatoms independently selected from N, O, and S, wherein the 5-6 membered monocyclic heteroaryl is optionally substituted with 1-3 groups independently selected from -OH, halogen, C₁₋₃ alkyl, and C₁₋₃ alkoxy,
 - xiii) 4-6 membered monocyclic heterocyclyl having 1-3 heteroatoms independently selected from N, O, and S, wherein the 4-6 membered monocyclic heterocyclyl is optionally substituted with 1-3 groups independently selected from -OH, halogen, oxo, C₁₋₃ alkyl, and C₁₋₃ alkoxy,
 - xiv) -COOH,
 - xv) -C(O)N(R¹⁹)₂, or
 - xvi) -C₁₋₃ alkylC(O)N(R¹⁹)₂,
- wherein one or more of R^{9a}, R^{9b}, R^{9c}, R^{9d}, and R^{9e} is -C(O)N(R¹⁹)₂ or -C₁₋₃ alkylC(O)N(R¹⁹)₂; and

each R¹⁹ is independently

- i) H,

- ii) $-S(O)_2C_{1-6}$ alkyl,
- iii) C_{1-6} alkyl optionally substituted with 1-6 groups independently selected from $-CN$, $-OH$, halogen, C_{1-3} alkoxy, and C_{3-7} monocyclic cycloalkyl,
- iv) C_{3-7} monocyclic cycloalkyl optionally substituted with 1-6 groups independently selected from $-CN$, $-OH$, halogen, C_{1-3} alkyl, and C_{1-3} alkoxy, wherein the C_{1-3} alkyl is optionally substituted with 1-3 groups independently selected from $-CN$, $-OH$, halogen, and C_{1-3} alkoxy, or
- v) 4-6 membered monocyclic heterocyclyl having 1-3 heteroatoms independently selected from N, O, and S, wherein the 4-6 membered monocyclic heterocyclyl is optionally substituted with 1-6 groups independently selected from $-CN$, $-OH$, halogen, oxo, C_{1-3} alkyl, and C_{1-3} alkoxy.

2. The compound of claim 1, wherein the compound is of Formula II:



Formula II

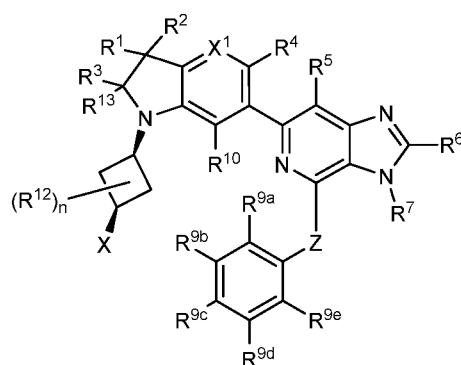
or a pharmaceutically acceptable salt thereof,

wherein

each R^{12} is independently $-OH$, halogen, C_{1-3} alkyl, or C_{1-3} alkoxy; and

n is 0, 1, 2, 3, or 4.

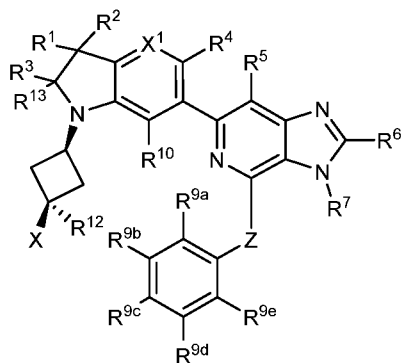
3. The compound of any one of claims 1-2, wherein the compound is of Formula IIa:



Formula IIa

or a pharmaceutically acceptable salt thereof.

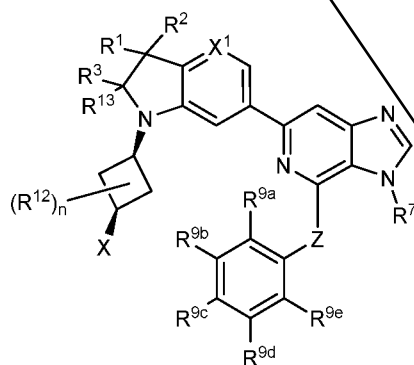
4. The compound of any one of claims 1-3, wherein the compound has a Formula IIb:



Formula IIb

or the pharmaceutically acceptable salt thereof.

5. The compound of any one of claims 1-4, or a pharmaceutically acceptable salt thereof, wherein R^4 , R^5 , R^6 , and R^{10} are H.
6. The compound of any one of claims 1-3 or 5, or a pharmaceutically acceptable salt thereof, wherein n is 0, 1, or 2.
7. The compound of any one of claims 1-6, wherein the compound is of Formula III:



Formula III

or a pharmaceutically acceptable salt thereof,

wherein:

one of R^1 and R^2 is -OH, halogen, or C_{1-3} alkyl, and the other of R^1 and R^2 is halogen or C_{1-3} alkyl, or

R^1 and R^2 together with the carbon to which they are attached form a 4-6 membered monocyclic heterocyclyl having 1 or 2 heteroatoms independently selected from N, O, and S, wherein the 4-6 membered monocyclic heterocyclyl is optionally substituted with one R^{11} and optionally substituted with 1-3 groups independently selected from -OH, halogen, oxo, C_{1-3} alkyl, and C_{1-3} alkoxy;

R^{11} is

- i) 4-6 membered monocyclic heterocyclyl having 1 or 2 heteroatoms independently selected from N, O, and S, wherein the 4-6 membered monocyclic heterocyclyl is optionally substituted with 1-3 groups independently selected from -CN, -OH, halogen, oxo, C_{1-3} alkyl, and C_{1-3} alkoxy,
- ii) $-S(O)_2C_{1-3}$ alkyl,
- iii) $-S(O)_2C_{3-5}$ monocyclic cycloalkyl,
- iv) C_{1-6} alkyl optionally substituted with 1-3 groups independently selected from -CN, -OH, halogen, C_{1-3} alkoxy, and C_{3-7} monocyclic cycloalkyl, or
- v) $-C(O)R^{21}$;

R^{21} is

- i) C_{3-7} monocyclic or bridged bicyclic cycloalkyl optionally substituted with 1-3 groups independently selected from -CN, -OH, halogen, C_{1-3} alkyl, and C_{1-3} alkoxy, wherein the C_{1-3} alkyl is optionally substituted with 1-3 groups independently selected from -OH, halogen, and C_{1-3} alkoxy,
- ii) 4-6 membered monocyclic heterocyclyl having 1 or 2 heteroatoms independently selected from N, O, and S, wherein the 4-6 membered monocyclic heterocyclyl is optionally substituted with 1-3 groups independently selected from -CN, -OH, halogen, oxo, C_{1-3} alkyl, and C_{1-3} alkoxy,
- iii) C_{1-6} alkoxy optionally substituted with 1-3 groups independently selected from -OH, halogen, C_{1-3} alkyl, and C_{3-7} monocyclic cycloalkyl, or
- iv) C_{1-6} alkyl optionally substituted with 1-3 groups independently selected from
 - a) -CN,
 - b) -OH,
 - c) halogen, and
 - d) C_{1-3} alkoxy,

R^3 and R^{13} are each H, or

R^3 and R^{13} together form =O;

n is 0 or 1;

R^{12} is C_{1-3} alkyl;

X is $-NR^{15}R^{16}$, wherein R^{15} and R^{16} are independently

- i) H,
- ii) C_{3-7} monocyclic cycloalkyl optionally substituted with 1-3 groups independently selected from -OH, halogen, C_{1-3} alkyl, and C_{1-3} alkoxy,
- iii) 4-7 membered monocyclic heterocyclyl having 1 or 2 heteroatoms independently selected from N, O, and S, wherein the 4-7 membered monocyclic heterocyclyl is optionally substituted with 1-3 groups independently selected from -OH, halogen, oxo, C_{1-3} alkyl, and C_{1-3} alkoxy,
- iv) $-C(O)C_{1-6}$ alkyl, wherein the C_{1-6} alkyl is optionally substituted with 1-3 groups independently selected from -CN, -OH, halogen, and C_{1-3} alkoxy, or
- v) C_{1-6} alkyl optionally substituted with 1-6 groups independently selected from
 - a) -OH,
 - b) halogen, and
 - c) C_{1-3} alkoxy; or

X is a 4-10 membered monocyclic, fused bicyclic, bridged bicyclic, or spirocyclic heterocyclyl having 1-3 heteroatoms independently selected from N, O, and S, wherein the 4-10 membered monocyclic, fused bicyclic, bridged bicyclic, or spirocyclic heterocyclyl is optionally substituted with 1-5 R^{18} ;

each R^{18} is independently

- i) a halogen,
- ii) -OH, or
- iii) C_{1-6} alkyl optionally substituted with 1-3 groups independently selected from -OH, halogen, C_{1-3} alkoxy, and C_{3-7} monocyclic cycloalkyl;

X^1 is N or CH;

R^7 is

- i) C_{1-6} alkyl optionally substituted with 1-3 groups independently selected from -OH, halogen, C_{1-3} alkoxy, and C_{3-7} monocyclic cycloalkyl, or
- ii) C_{3-7} monocyclic cycloalkyl optionally substituted with 1-3 groups independently selected from -OH, halogen, C_{1-3} alkyl, and C_{1-3} alkoxy;

Z is -O- or NH;

R^{9a} , R^{9b} , R^{9c} , R^{9d} , and R^{9e} are independently

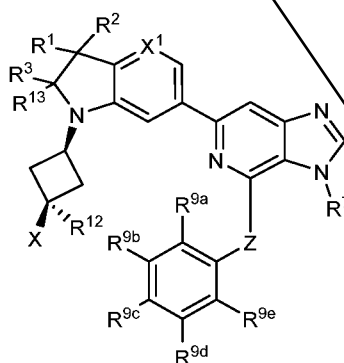
- i) H,
- ii) halogen,
- iii) C_{1-6} alkoxy optionally substituted with 1-3 groups independently selected from -OH, halogen, C_{1-3} alkyl, and C_{3-7} monocyclic cycloalkyl,
- iv) C_{1-6} alkyl optionally substituted with 1-3 groups independently selected from -OH, halogen, C_{1-3} alkoxy, and C_{3-7} monocyclic cycloalkyl,
- v) C_{3-7} monocyclic cycloalkyl optionally substituted with 1-3 groups independently selected from -OH, halogen, C_{1-3} alkyl, and C_{1-3} alkoxy, or
- vi) $-C(O)N(R^{19})_2$,

wherein one or more of R^{9a} , R^{9b} , R^{9c} , R^{9d} , and R^{9e} is $-C(O)N(R^{19})_2$;

each R^{19} is independently

- i) H,
- ii) C_{1-6} alkyl optionally substituted with 1-6 groups independently selected from -CN, -OH, halogen, C_{1-3} alkoxy, and C_{3-7} monocyclic cycloalkyl, or
- iii) C_{3-7} monocyclic cycloalkyl optionally substituted with 1-6 groups independently selected from -CN, -OH, halogen, C_{1-3} alkyl, and C_{1-3} alkoxy, wherein the C_{1-3} alkyl is optionally substituted with 1-3 groups independently selected from -CN, -OH, halogen, and C_{1-3} alkoxy.

8. The compound of any one of claims 1-7, wherein the compound is of Formula IIIa:



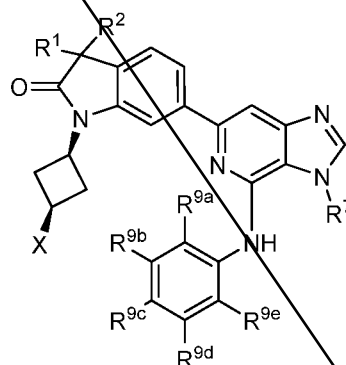
Formula IIIa

or a pharmaceutically acceptable salt thereof.

9. The compound of any one of claims 1-8, or a pharmaceutically acceptable salt thereof, wherein R^3 and R^{13} together form $=O$.

10. The compound of any one of claims 1-9, or a pharmaceutically acceptable salt thereof, wherein X^1 is CH.

11. The compound of any one of claims 1-9, or a pharmaceutically acceptable salt thereof, wherein X^1 is N.
12. The compound of any one of claims 1-11, or a pharmaceutically acceptable salt thereof, wherein R^{12} is C_{1-3} alkyl.
13. The compound of any one of claims 1-12, or a pharmaceutically acceptable salt thereof, wherein R^{12} is methyl or ethyl.
14. The compound of any one of claims 1-13, or a pharmaceutically acceptable salt thereof, wherein R^{12} is methyl.
15. The compound of any one of claims 1-14, or a pharmaceutically acceptable salt thereof, wherein Z is NH.
16. The compound of any one of claims 1-3, 5-7, and 9-15, wherein the compound is of Formula IV:



Formula IV

or a pharmaceutically acceptable salt thereof,
wherein:

one of R^1 and R^2 is -OH, halogen, or C_{1-3} alkyl, and the other of R^1 and R^2 is halogen or C_{1-3} alkyl, or

R^1 and R^2 together with the carbon to which they are attached form a 4-6 membered monocyclic heterocyclyl having 1 or 2 heteroatoms independently selected from N, O, and S, wherein the 4-6 membered monocyclic heterocyclyl is optionally substituted with one R^{11} and optionally substituted with 1-3 groups independently selected from -OH, halogen, oxo, C_{1-3} alkyl, and C_{1-3} alkoxy;

R^{11} is

- i) 4-6 membered monocyclic heterocyclyl having 1 or 2 heteroatoms

independently selected from N, O, and S, wherein the 4-6 membered monocyclic heterocyclyl is optionally substituted with 1-3 groups independently selected from -CN, -OH, halogen, oxo, C₁₋₃ alkyl, and C₁₋₃ alkoxy,

- ii) -S(O)₂C₁₋₃ alkyl,
- iii) -S(O)₂C₃₋₄ monocyclic cycloalkyl,
- iv) C₁₋₆ alkyl optionally substituted with 1-3 groups independently selected from -CN, -OH, halogen, C₁₋₃ alkoxy, and C₃₋₇ monocyclic cycloalkyl. or
- v) -C(O)R²¹;

R²¹ is

- i) C₃₋₇ monocyclic or bridged bicyclic cycloalkyl optionally substituted with 1-3 groups independently selected from -CN, -OH, halogen, C₁₋₃ alkyl, and C₁₋₃ alkoxy, wherein the C₁₋₃ alkyl is optionally substituted with 1-3 groups independently selected from -OH, halogen, and C₁₋₃ alkoxy,
- ii) 4-6 membered monocyclic heterocyclyl having 1 or 2 heteroatoms independently selected from N, O, and S, wherein the 4-6 membered monocyclic heterocyclyl is optionally substituted with 1-3 groups independently selected from -CN, -OH, halogen, oxo, C₁₋₃ alkyl, and C₁₋₃ alkoxy,
- iii) C₁₋₆ alkoxy optionally substituted with 1-3 groups independently selected from -OH, halogen, C₁₋₃ alkyl, and C₃₋₇ monocyclic cycloalkyl, or
- iv) C₁₋₆ alkyl optionally substituted with 1-3 groups independently selected from
 - a) -CN,
 - b) -OH,
 - c) halogen, and
 - d) C₁₋₃ alkoxy,

X is -NR¹⁵R¹⁶, wherein R¹⁵ and R¹⁶ are independently

- i) H,
- ii) C₃₋₇ monocyclic cycloalkyl optionally substituted with 1-3 groups independently selected from -OH, halogen, C₁₋₃ alkyl, and C₁₋₃ alkoxy,
- iii) 4-7 membered monocyclic heterocyclyl having 1 or 2 heteroatoms independently selected from N, O, and S, wherein the 4-7 membered monocyclic heterocyclyl is optionally substituted with 1-3 groups

- independently selected from -OH, halogen, oxo, C₁₋₃ alkyl, and C₁₋₃ alkoxy,
- iv) -C(O)C₁₋₆ alkyl, wherein the C₁₋₆ alkyl is optionally substituted with 1-3 groups independently selected from -CN, -OH, halogen, and C₁₋₃ alkoxy, or
- v) C₁₋₆ alkyl optionally substituted with 1-6 groups independently selected from
- OH,
 - halogen, and
 - C₁₋₃ alkoxy; or

X is a 4-10 membered monocyclic, fused bicyclic, bridged bicyclic, or spirocyclic heterocyclyl having 1-3 heteroatoms independently selected from N, O, and S, wherein the 4-10 membered monocyclic, fused bicyclic, bridged bicyclic, or spirocyclic heterocyclyl is optionally substituted with 1-5 R¹⁸;

each R¹⁸ is independently

- a halogen,
- OH, or
- C₁₋₆ alkyl optionally substituted with 1-3 groups independently selected from -OH, halogen, C₁₋₃ alkoxy, and C₃₋₇ monocyclic cycloalkyl;

R⁷ is

- C₁₋₆ alkyl optionally substituted with 1-3 groups independently selected from -OH, halogen, C₁₋₃ alkoxy, and C₃₋₇ monocyclic cycloalkyl, or
- C₃₋₇ monocyclic cycloalkyl optionally substituted with 1-3 groups independently selected from -OH, halogen, C₁₋₃ alkyl, and C₁₋₃ alkoxy;

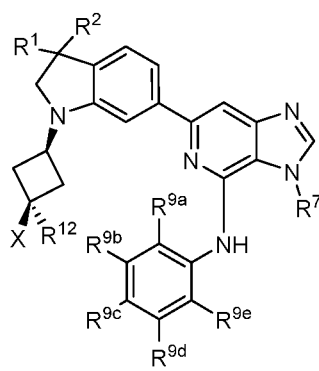
R^{9a}, R^{9b}, R^{9c}, R^{9d}, and R^{9e} are independently

- H,
- halogen,
- C₁₋₆ alkoxy optionally substituted with 1-3 groups independently selected from -OH, halogen, C₁₋₃ alkyl, and C₃₋₇ monocyclic cycloalkyl,
- C₁₋₆ alkyl optionally substituted with 1-3 groups independently selected from -OH, halogen, C₁₋₃ alkoxy, and C₃₋₇ monocyclic cycloalkyl,
- C₃₋₇ monocyclic cycloalkyl optionally substituted with 1-3 groups independently selected from -OH, halogen, C₁₋₃ alkyl, and C₁₋₃ alkoxy, or
- C(O)N(R¹⁹)₂,

wherein one or more of R^{9a}, R^{9b}, R^{9c}, R^{9d}, and R^{9e} is -C(O)N(R¹⁹)₂;

each R¹⁹ is independently

- H,

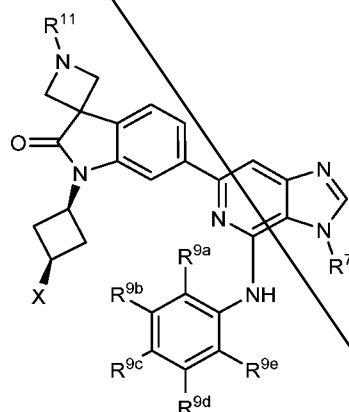


Formula IVc

or the pharmaceutically acceptable salt thereof.

20. The compound of any one of claims 1-19, or a pharmaceutically acceptable salt thereof, wherein R^1 and R^2 together with the carbon to which they are attached form an azetidinyloptionally substituted with one R^{11} and optionally substituted with 1 or 2 groups independently selected from -OH, halogen, oxo, C_{1-3} alkyl, and C_{1-3} alkoxy.

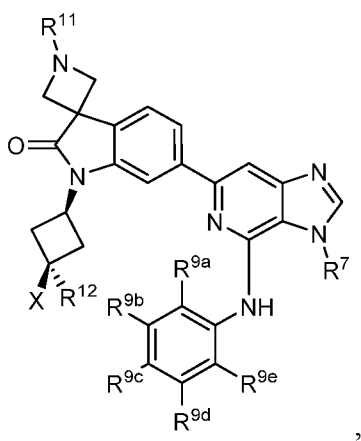
21. The compound of any one of claims 1-16, 18, and 20, wherein the compound is of Formula V:



Formula V

or a pharmaceutically acceptable salt thereof.

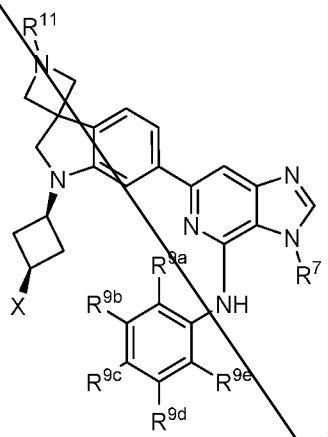
22. The compound of any one of claims 1-15, 18, and 20, wherein the compound is of Formula Va:



Formula Va

or the pharmaceutically acceptable salt thereof.

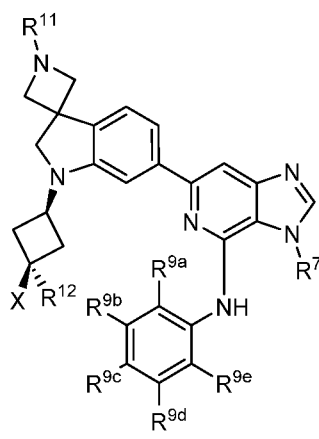
23. The compound of any one of claims 1-17, 19, and 20, wherein the compound is of Formula Vb:



Formula Vb

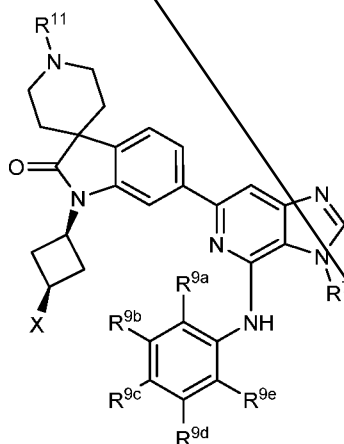
or the pharmaceutically acceptable salt thereof.

24. The compound of any one of claims 1-15, 19, and 20, wherein the compound is of Formula Vc:

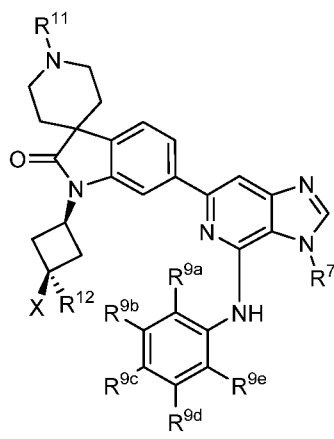


,

25. The compound of any one of claims 1-19, or a pharmaceutically acceptable salt thereof, wherein R¹ and R² together with the carbon to which they are attached form a piperidinyl optionally substituted with one R⁴ and optionally substituted with 1-3 groups independently selected from -OH, halogen, oxo, C₁₋₃ alkyl, and C₁₋₃ alkoxy.

C1CCN(R1)CC1C2C(=O)N(C2)c3ccc(cc3)-c4ccc(cc4)C#N

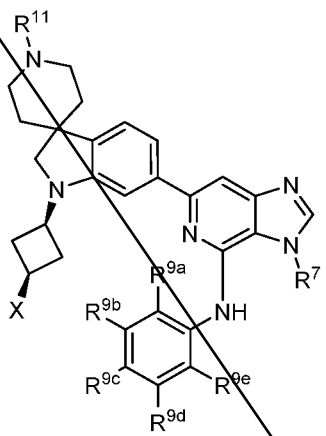
27. The compound of any one of claims 1-15, 18, and 25, wherein the compound is of Formula VIa:



Formula VIa

or a pharmaceutically acceptable salt thereof.

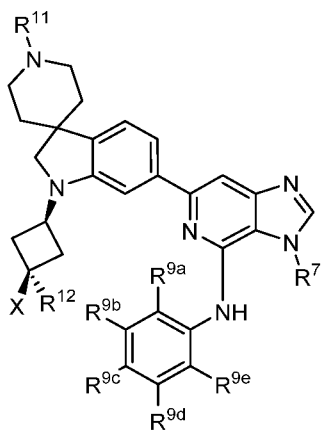
28. The compound of any one of claims 1-15, 17, and 25, wherein the compound is of Formula VIb:



Formula VIb

or a pharmaceutically acceptable salt thereof.

29. The compound of any one of claims 1-15, 19, and 25, wherein the compound is of Formula VIc:



Formula VIc

or a pharmaceutically acceptable salt thereof.

30. The compound of any one of claims 1-29, or a pharmaceutically acceptable salt thereof, wherein R¹¹ is a 4 membered monocyclic heterocyclyl having 1 or 2 heteroatoms independently selected from N, O, and S, wherein the 4 membered monocyclic heterocyclyl is optionally substituted with 1-3 groups independently selected from -CN, -OH, halogen, C₁₋₃ alkyl, and C₁₋₃ alkoxy.

31. The compound of any one of claims 1-30, or a pharmaceutically acceptable salt thereof, wherein R¹¹ is oxetanyl optionally substituted with 1-3 groups independently selected from -CN, -OH, halogen, C₁₋₃ alkyl, and C₁₋₃ alkoxy.

32. The compound of any one of claims 1-29, or a pharmaceutically acceptable salt thereof, wherein R¹¹ is C₁₋₆ alkyl optionally substituted with 1-3 groups independently selected from -CN, -OH, halogen, and C₁₋₃ alkoxy.

33. The compound of any one of claims 1-29 and 32, or a pharmaceutically acceptable salt thereof, wherein R¹¹ is an ethyl optionally substituted with 1-3 halogens.

34. The compound of any one of claims 1-29, or a pharmaceutically acceptable salt thereof, wherein R¹¹ is -SO₂(CH₃) or -SO₂(cyclopropyl).

35. The compound of any one of claims 1-29, or a pharmaceutically acceptable salt thereof, wherein R¹¹ is -C(O)R²¹.

36. The compound of any one of claims 1-29 and 35, or a pharmaceutically acceptable salt thereof, wherein R²¹ is C₁₋₆ alkyl optionally substituted with 1-3 groups independently selected from -CN, -OH, halogen, and C₁₋₃ alkoxy.

37. The compound of any one of claims 1-29, 35, and 36, or a pharmaceutically acceptable salt thereof, wherein R²¹ is methyl, ethyl, n-propyl, isopropyl, n-butyl, isobutyl, or tert-butyl, each of which is optionally substituted with 1-3 groups independently selected from -CN, -OH, halogen, and C₁₋₃ alkoxy.

38. The compound of any one of claims 1-29 and 35, or a pharmaceutically acceptable salt thereof, wherein R²¹ is cyclopropyl, cyclobutyl, cyclopentyl, or C₅ bridged bicyclic cycloalkyl, each of which is optionally substituted with 1-3 groups independently selected from -CN, -OH,

halogen, C₁₋₃ alkyl, and C₁₋₃ alkoxy, wherein the C₁₋₃ alkyl is optionally substituted with 1-3 groups independently selected from -OH and halogen.

39. The compound of any one of claims 1-29 and 35, or a pharmaceutically acceptable salt thereof, wherein R²¹ is oxetanyl optionally substituted with 1-3 groups independently selected from -OH, halogen, C₁₋₃ alkyl, and C₁₋₃ alkoxy.

40. The compound of any one of claims 1-29 and 35, or a pharmaceutically acceptable salt thereof, wherein R²¹ is C₁₋₃ alkoxy.

41. The compound of any one of claims 1-29 and 35, or a pharmaceutically acceptable salt thereof, wherein R²¹ is:

- i) methyl optionally substituted with one group selected from -CN and -OH,
- ii) ethyl optionally substituted with one group selected from -OH, fluoro, and -OCH₃,
- iii) n-propyl optionally substituted with one -OH,
- iv) isopropyl optionally substituted with one group selected from -CN, -OH and -OCH₃,
- v) isobutyl optionally substituted with one -OH,
- vi) tert-butyl optionally substituted with one group selected from -OH, fluoro, and -OCH₃,
- vii) -OCH₃,
- viii) cyclopropyl optionally substituted with one group selected from -CN, -OH, fluoro, methyl, -CH₂OH, and -OCH₃,
- ix) cyclobutyl optionally substituted with one group selected from fluoro, methyl, and -OCH₃,
- x) cyclopentyl optionally substituted with one -OH,
- xi) C₅ bridged bicyclic cycloalkyl optionally substituted with one group selected from -OH and fluoro, or
- xii) oxetanyl optionally substituted with one group selected from methyl, ethyl, and isopropyl.

42. The compound of any one of claims 1-29, 35, and 41, or a pharmaceutically acceptable salt thereof, wherein R²¹ is

- i) methyl,
- ii) -CH₂OH,

- iii) $-\text{CH}_2(\text{CN})$,
- iv) ethyl,
- v) $-\text{CH}(\text{CH}_3)\text{OH}$,
- vi) $-\text{CH}(\text{CH}_3)\text{CH}_2\text{OH}$,
- vii) $-\text{CH}(\text{CH}_3)\text{OCH}_3$,
- viii) $-\text{CH}(\text{OH})\text{CH}_2\text{CH}_3$,
- ix) isopropyl,
- x) $-\text{C}(\text{CH}_3)_2\text{OH}$,
- xi) $-\text{C}(\text{CH}_3)_2\text{OCH}_3$,
- xii) $-\text{C}(\text{CH}_3)_2\text{CN}$,
- xiii) tert-butyl,
- xiv) $-\text{C}(\text{CH}_3)_2\text{CH}_2\text{OH}$,
- xv) $-\text{C}(\text{CH}_3)_2\text{CH}_2\text{OCH}_3$,
- xvi) $-\text{C}(\text{CH}_3)_2\text{CH}_2\text{F}$,
- xvii) $-\text{CH}(\text{OH})\text{CH}(\text{CH}_3)_2$,
- xviii) $-\text{OCH}_3$,
- xix) cyclopropyl,
- xx) cyclopropyl substituted with one methyl,
- xxi) cyclopropyl substituted with one fluoro,
- xxii) cyclopropyl substituted with one $-\text{OCH}_3$,
- xxiii) cyclopropyl substituted with one $-\text{OH}$,
- xxiv) cyclopropyl substituted with one $-\text{CN}$,
- xxv) cyclopropyl substituted with one $-\text{CH}_2\text{OH}$,
- xxvi) cyclobutyl,
- xxvii) cyclobutyl substituted with one methyl,
- xxviii) cyclobutyl substituted with one $-\text{OCH}_3$,
- xxix) cyclobutyl substituted with one fluoro,
- xxx) cyclopentyl substituted with one $-\text{OH}$,
- xxxi) C_5 bridged bicyclic cycloalkyl,
- xxxii) C_5 bridged bicyclic cycloalkyl substituted with one fluoro,
- xxxiii) C_5 bridged bicyclic cycloalkyl substituted with one $-\text{OH}$,
- xxxiv) oxetanyl,
- xxxv) oxetanyl substituted with one methyl,
- xxxvi) oxetanyl substituted with one ethyl, or

xxxvii) oxetanyl substituted with one isopropyl.

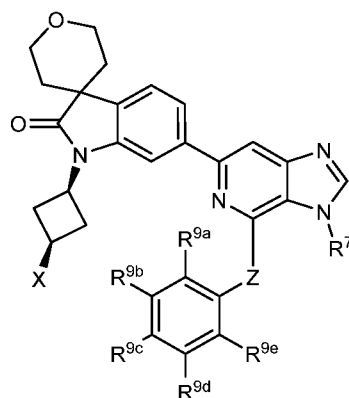
43. The compound of any one of claims 1-29, 35, 41, and 42, or a pharmaceutically acceptable salt thereof, wherein R²¹ is

- i) methyl,
- ii) ethyl,
- iii) -CH(CH₃)OH,
- iv) isopropyl,
- v) -C(CH₃)₂OH,
- vi) tert-butyl,
- vii) -OCH₃,
- viii) cyclopropyl,
- ix) cyclopropyl substituted with one methyl,
- x) cyclopropyl substituted with one -OH,
- xi) cyclobutyl,
- xii) cyclobutyl substituted with one methyl,
- xiii) C₅ bridged bicyclic cycloalkyl,
- xiv) C₅ bridged bicyclic cycloalkyl substituted with one fluoro,
- xv) C₅ bridged bicyclic cycloalkyl substituted with one -OH,
- xvi) oxetanyl, or
- xvii) oxetanyl substituted with one methyl.

44. The compound of any one of claims 1-29, 35-37, and 41-43, or a pharmaceutically acceptable salt thereof, wherein R²¹ is methyl.

45. The compound of any one of claims 1-19, or a pharmaceutically acceptable salt thereof, wherein R¹ and R² together with the carbon to which they are attached form a tetrahydropyranyl optionally substituted with 1-3 groups independently selected from -OH, halogen, C₁₋₃ alkyl, and C₁₋₃ alkoxy.

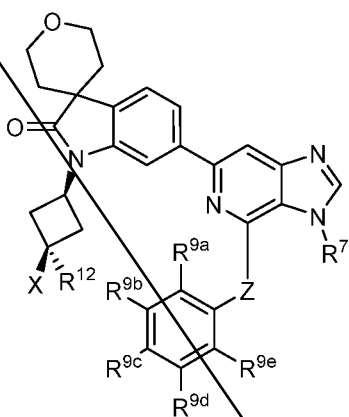
46. The compound of any one of claims 1-16 and 45, wherein the compound is of Formula VII:



Formula VII

or a pharmaceutically acceptable salt thereof.

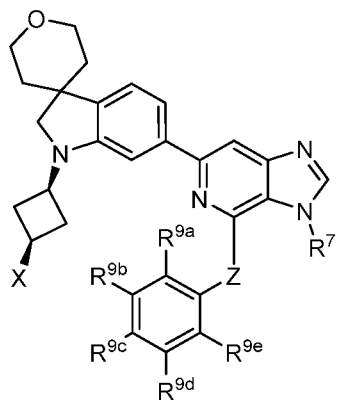
47. The compound of any one of claims 1-15, 18, and 45, wherein the compound is of Formula VIIa:



Formula VIIa

or a pharmaceutically acceptable salt thereof.

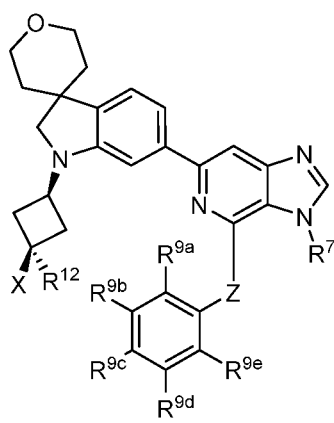
48. The compound of any one of claims 1-15, 17, and 45, wherein the compound is of Formula VIIb:



Formula VIIb

or a pharmaceutically acceptable salt thereof.

49. The compound of any one of claims 1-15, 19, and 45, wherein the compound is of Formula VIIc:



Formula VIIc

or a pharmaceutically acceptable salt thereof.

50. The compound of any one of claims 1-19, or a pharmaceutically acceptable salt thereof, wherein one of R^1 and R^2 is -OH, fluoro, methyl, or ethyl and the other of one of R^1 and R^2 is fluoro, methyl, or ethyl.

51. The compound of any one of claims 1-19 and 50, or a pharmaceutically acceptable salt thereof, wherein R^1 and R^2 are both fluoro, methyl, or ethyl.

52. The compound of any one of claims 1-19, 50 and 51, or a pharmaceutically acceptable salt thereof, wherein R^1 and R^2 are both methyl.

53. The compound of any one of claims 1-52, or a pharmaceutically acceptable salt thereof, wherein one or more of R^{9a} , R^{9b} , R^{9c} , R^{9d} , and R^{9e} are independently:

- i) H,
- ii) halogen,
- iii) C_{1-3} alkyl optionally substituted with 1-3 groups independently selected from -OH and halogen,
- iv) -OCH₃ optionally substituted with 1-3 halogen groups,
- v) cyclopropyl, or
- vi) -C(O)N(R^{19})₂,

and wherein one or more of R^{9a} , R^{9b} , R^{9c} , R^{9d} , and R^{9e} is -C(O)N(R^{19})₂.

54. The compound of any one of claims 1-53, or a pharmaceutically acceptable salt thereof, wherein R^{9a} , R^{9b} , R^{9c} , R^{9d} , and R^{9e} are independently:

- i) H,
- ii) fluoro,
- iii) chloro,
- iv) methyl optionally substituted with 1-3 groups independently selected from -OH and fluoro,
- v) ethyl optionally substituted with one -OH,
- vi) -OCH₃ optionally substituted with 1-3 fluoro groups,
- vii) cyclopropyl, or
- viii) -C(O)N(R¹⁹)₂,

and wherein one or more of R^{9a} , R^{9b} , R^{9c} , R^{9d} , and R^{9e} is -C(O)N(R¹⁹)₂.

55. The compound of any one of claims 1-54, or a pharmaceutically acceptable salt thereof, wherein R^{9a} , R^{9b} , R^{9c} , R^{9d} , and R^{9e} are independently H, fluoro, chloro, methyl, ethyl, -OCH₃, -CF₃, -CHF₂, -CH₂OH, -CH(CH₃)OH, -OCF₃, cyclopropyl, or -C(O)N(R¹⁹)₂, and wherein one or more of R^{9a} , R^{9b} , R^{9c} , R^{9d} , and R^{9e} is -C(O)N(R¹⁹)₂.

56. The compound of any one of claims 1-55, or a pharmaceutically acceptable salt thereof, wherein R^{9a} , R^{9b} , R^{9c} , R^{9d} , and R^{9e} are independently H, fluoro, chloro, methyl, ethyl, -CF₃, -OCF₃, cyclopropyl, or -C(O)N(R¹⁹)₂, and wherein one or more of R^{9a} , R^{9b} , R^{9c} , R^{9d} , and R^{9e} is -C(O)N(R¹⁹)₂.

57. The compound of any one of claims 1-56, or a pharmaceutically acceptable salt thereof, wherein one or more of R^{9a} , R^{9b} , R^{9c} , R^{9d} , and R^{9e} are independently H, fluoro, chloro, methyl, ethyl, or -C(O)N(R¹⁹)₂, and wherein one or more of R^{9a} , R^{9b} , R^{9c} , R^{9d} , and R^{9e} is -C(O)N(R¹⁹)₂.

58. The compound of any one of claims 1-57, or a pharmaceutically acceptable salt thereof, wherein one of R^{9a} , R^{9b} , R^{9c} , and R^{9e} are independently H, fluoro, chloro, methyl, or ethyl.

59. The compound of any one of claims 1-58, or a pharmaceutically acceptable salt thereof, wherein R^{9a} , R^{9b} , R^{9c} , and R^{9e} are independently H, fluoro, chloro, methyl, or ethyl and R^{9d} is -C(O)N(R¹⁹)₂; wherein each R¹⁹ is independently H or cyclopropyl, wherein the cyclopropyl is optionally substituted with a methyl, and wherein the methyl is optionally substituted with 1-3 groups independently selected from fluoro and -OCH₃.

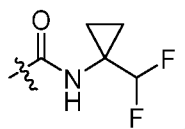
60. The compound of any one of claims 1-59, or a pharmaceutically acceptable salt thereof, wherein R^{9a} , R^{9b} , R^{9c} , and R^{9e} are independently H, fluoro, chloro, methyl, or ethyl and R^{9d} is $-C(O)N(R^{19})_2$; wherein each R^{19} is independently H or cyclopropyl, wherein the cyclopropyl is optionally substituted with a methyl, and wherein the methyl is optionally substituted with 1-3 fluoro groups.

61. The compound of any one of claims 1-60, or a pharmaceutically acceptable salt thereof, wherein R^{9a} , R^{9b} , R^{9c} , and R^{9e} are independently H, fluoro, chloro, methyl, or ethyl and R^{9d} is $-C(O)NH(R^{19})$; wherein R^{19} is cyclopropyl optionally substituted with a methyl, and wherein the methyl is optionally substituted with 1-3 fluoro groups.

62. The compound of any one of claims 1-61, or a pharmaceutically acceptable salt thereof, wherein R^{9a} , R^{9b} , R^{9c} , and R^{9e} are independently H, fluoro, or chloro and R^{9d} is $-C(O)NH(R^{19})$; wherein R^{19} is cyclopropyl optionally substituted with a methyl, and wherein the methyl is optionally substituted with 1-3 fluoro groups.

63. The compound of any one of claims 1-62, or a pharmaceutically acceptable salt thereof, wherein R^{9a} , R^{9b} , and R^{9c} are independently fluoro or chloro, R^{9e} is H, and R^{9d} is $-C(O)NH(R^{19})$; wherein R^{19} is cyclopropyl optionally substituted with a methyl, wherein the methyl is optionally substituted with 1-3 fluoro groups.

64. The compound of any one of claims 1-63, or a pharmaceutically acceptable salt thereof,



65. The compound of any one of claims 1-58, or a pharmaceutically acceptable salt thereof, wherein R^{9a} is H or fluoro.

66. The compound of any one of claims 1-65, or a pharmaceutically acceptable salt thereof, wherein R^{9b} is H or methyl.

67. The compound of any one of claims 1-66, or a pharmaceutically acceptable salt thereof, wherein R^{9c} is H, fluoro, chloro, methyl, ethyl, $-CF_3$, $-OCF_3$, or cyclopropyl.

68. The compound of any one of claims 1-67, or a pharmaceutically acceptable salt thereof, wherein R^{9c} is methyl.

69. The compound of any one of claims 1-68, or a pharmaceutically acceptable salt thereof, wherein R^{9e} is H.

70. The compound of any one of claims 1-69, or a pharmaceutically acceptable salt thereof, wherein R^{9d} is -C(O)N(R¹⁹)₂.

71. The compound of any one of claims 1-70, or a pharmaceutically acceptable salt thereof, wherein one or more R¹⁹ is C₁₋₆ alkyl optionally substituted with 1-3 groups independently selected from -OH, halogen, and C₁₋₃ alkoxy.

72. The compound of any one of claims 1-70, or a pharmaceutically acceptable salt thereof, wherein one or more R¹⁹ is a C₃₋₅ monocyclic cycloalkyl optionally substituted with 1-3 groups independently selected from -OH, halogen, C₁₋₃ alkyl, and C₁₋₃ alkoxy, wherein the C₁₋₃ alkyl is optionally substituted with 1-3 groups independently selected from halogen and C₁₋₃ alkoxy.

73. The compound of any one of claims 1-70, or a pharmaceutically acceptable salt thereof, wherein each R¹⁹ is independently:

- i) H,
- ii) methyl,
- iii) ethyl optionally substituted with 1 or 2 groups independently selected from -OH, fluoro, and -OCH₃,
- iv) n-propyl optionally substituted with 1 or 2 groups independently selected from fluoro and -OCH₃,
- v) isopropyl optionally substituted with 1 or 2 fluoro groups,
- vi) n-butyl,
- vii) isobutyl optionally substituted with 1 or 2 fluoro groups,
- viii) sec-butyl,
- ix) tert-butyl,
- x) cyclopropyl optionally substituted with a methyl, wherein the methyl is optionally substituted with 1-3 groups independently selected from fluoro and -OCH₃, or
- xi) cyclobutyl.

74. The compound of any one of claims 1-70 and 73, or a pharmaceutically acceptable salt thereof, wherein each R¹⁹ is independently:

- i) H,

- ii) methyl,
- iii) ethyl,
- iv) $-\text{CH}_2\text{CH}_2\text{OH}$,
- v) $-\text{CH}_2\text{CH}_2\text{OCH}_3$,
- vi) $-\text{CH}_2\text{CHF}_2$,
- vii) $-\text{CH}_2\text{C}(\text{CH}_3)\text{F}_2$,
- viii) $-\text{CH}(\text{CH}_3)\text{CH}_2\text{F}$,
- ix) $-\text{CH}(\text{CH}_2\text{F})_2$,
- x) n-propyl,
- xi) isopropyl,
- xii) $-\text{CH}(\text{CH}_3)\text{CHF}_2$,
- xiii) $-\text{CH}_2\text{CH}_2\text{CHF}_2$,
- xiv) isobutyl,
- xv) sec-butyl,
- xvi) tert-butyl, or
- xvii) $-\text{CH}_2\text{CH}_2\text{CH}_2\text{OCN}_3$,
- xviii) cyclopropyl,
- xix) cyclopropyl substituted with one group selected from $-\text{CH}_2\text{F}$, $-\text{CHF}_2$ and $-\text{CH}_2\text{OCH}_3$, or
- xx) cyclobutyl.

75. The compound of any one of claims 1-70, 73, and 74, or a pharmaceutically acceptable salt thereof, wherein each R^{19} is independently:

- i) H,
- ii) methyl,
- iii) ethyl,
- iv) $-\text{CH}_2\text{CH}_2\text{OH}$,
- v) $-\text{CH}_2\text{CH}_2\text{OCH}_3$,
- vi) $-\text{CH}_2\text{CHF}_2$,
- vii) $-\text{CH}_2\text{C}(\text{CH}_3)\text{F}_2$,
- viii) n-propyl,
- ix) isopropyl,
- x) $-\text{CH}(\text{CH}_3)\text{CH}_2\text{F}$,
- xi) $-\text{CH}(\text{CH}_3)\text{CHF}_2$,
- xii) $-\text{CH}(\text{CH}_2\text{F})_2$,

- xiii) $-\text{CH}_2\text{CH}_2\text{CHF}_2$,
- xiv) isobutyl,
- xv) sec-butyl,
- xvi) tert-butyl,
- xvii) cyclopropyl,
- xviii) cyclopropyl substituted with one group selected from $-\text{CH}_2\text{F}$, $-\text{CHF}_2$ and $-\text{CH}_2\text{OCH}_3$, or
- xix) cyclobutyl.

76. The compound of any one of claims 1-75, or a pharmaceutically acceptable salt thereof, wherein one R^{19} is H.

77. The compound of any one of claims 1-76, or a pharmaceutically acceptable salt thereof, wherein one R^{19} is H and the other R^{19} is H, methyl, ethyl, or isopropyl.

78. The compound of any one of claims 1-77, or a pharmaceutically acceptable salt thereof, wherein R^7 is methyl, ethyl, isopropyl, sec-butyl, or cyclopropyl, wherein the cyclopropyl is optionally substituted with one methyl.

79. The compound of any one of claims 1-78, or a pharmaceutically acceptable salt thereof, wherein R^7 is ethyl, isopropyl, sec-butyl, or cyclopropyl.

80. The compound of any one of claims 1-79, or a pharmaceutically acceptable salt thereof, wherein R^7 is isopropyl or cyclopropyl.

81. The compound of any one of claims 1-80, or a pharmaceutically acceptable salt thereof, wherein R^7 is isopropyl.

82. The compound of any one of claims 1-81, or a pharmaceutically acceptable salt thereof, wherein X is $\text{NR}^{15}\text{R}^{16}$.

83. The compound of any one of claims 1-82, or a pharmaceutically acceptable salt thereof, wherein one or both of R^{15} and R^{16} are a C_{3-7} monocyclic cycloalkyl optionally substituted with 1-3 groups independently selected from -OH, halogen, C_{1-3} alkyl, and C_{1-3} alkoxy.

84. The compound of any one of claims 1-82, or a pharmaceutically acceptable salt thereof, wherein one or both of R^{15} and R^{16} are a 5-7 membered monocyclic heterocyclyl optionally substituted with 1-3 groups independently selected from -OH, halogen, C_{1-3} alkyl, and C_{1-3}

alkoxy.

85. The compound of any one of claims 1-82, or a pharmaceutically acceptable salt thereof, wherein one or both of R^{15} and R^{16} are independently a cyclobutyl, cyclopentyl, cyclohexyl, or tetrahydropyranyl, each of which is optionally substituted with 1-3 groups independently selected from -OH, halogen, C_{1-3} alkyl, and C_{1-3} alkoxy.

86. The compound of any one of claims 1-82, or a pharmaceutically acceptable salt thereof, wherein one or both of R^{15} and R^{16} is a C_{1-6} alkyl optionally substituted with 1-3 groups independently selected from -OH, halogen, and -OCH₃.

87. The compound of any one of claims 1-82, or a pharmaceutically acceptable salt thereof, wherein one of R^{15} and R^{16} is -C(O) C_{1-6} alkyl.

88. The compound of any one of claims 1-82 and 87, or a pharmaceutically acceptable salt thereof, wherein one of R^{15} and R^{16} is -C(O)tert-butyl.

89. The compound of any one of claims 1-82, or a pharmaceutically acceptable salt thereof, wherein R^{15} and R^{16} are independently:

- i) H,
- ii) methyl,
- iii) isopropyl,
- iv) isobutyl optionally substituted with one group selected from -OH, fluoro, and -OCH₃,
- v) sec-butyl,
- vi) C_5 alkyl optionally substituted with -OCH₃,
- vii) -C(O)(tert-butyl)
- viii) cyclobutyl optionally substituted with 1 or 2 groups independently selected from -OH and fluoro,
- ix) cyclohexyl optionally substituted with 1 or 2 fluoro groups, or
- x) tetrahydropyranyl optionally substituted with one group selected from fluoro and methyl.

90. The compound of any one of claims 1-82 and 89, or a pharmaceutically acceptable salt thereof, wherein R^{15} and R^{16} are independently:

- i) H,
- ii) methyl,

- iii) isopropyl,
- iv) isobutyl,
- v) $-\text{CH}_2\text{C}(\text{CH}_3)_2\text{F}$,
- vi) $-\text{CH}_2\text{C}(\text{CH}_3)_2\text{OCH}_3$,
- vii) $-\text{CH}_2\text{C}(\text{CH}_3)_2\text{OH}$,
- viii) sec-butyl,
- ix) $-\text{CH}_2\text{C}(\text{CH}_3)_2\text{CH}_2\text{OCH}_3$,
- x) $-\text{C}(\text{O})(\text{tert-butyl})$,
- xi) cyclobutyl,
- xii) cyclobutyl substituted with one $-\text{OH}$,
- xiii) cyclobutyl substituted with 2 fluoro groups,
- xiv) cyclohexyl substituted with 2 fluoro groups,
- xv) tetrahydropyranyl,
- xvi) tetrahydropyranyl substituted with one fluoro group, or
- xvii) tetrahydropyranyl substituted with one methyl group.

91. The compound of any one of claims 1-82, 89, and 90, or a pharmaceutically acceptable salt thereof, wherein R^{15} and R^{16} are independently:

- i) H,
- ii) isopropyl,
- iii) $-\text{CH}_2\text{C}(\text{CH}_3)_2\text{F}$,
- iv) $-\text{CH}_2\text{C}(\text{CH}_3)_2\text{OH}$,
- v) $-\text{CH}_2\text{C}(\text{CH}_3)_2\text{OCH}_3$,
- vi) $-\text{C}(\text{O})(\text{tert-butyl})$,
- vii) cyclobutyl substituted with 2 fluoro groups,
- viii) cyclohexyl substituted with 2 fluoro groups, or
- ix) tetrahydropyranyl substituted with one methyl group.

92. The compound of any one of claims 1-91, or a pharmaceutically acceptable salt thereof, wherein one of R^{15} and R^{16} is H and the other of R^{15} and R^{16} is:

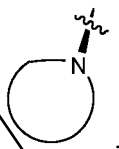
- i) isopropyl,
- ii) $-\text{CH}_2\text{C}(\text{CH}_3)_2\text{F}$,
- iii) $-\text{CH}_2\text{C}(\text{CH}_3)_2\text{OH}$,
- iv) $-\text{CH}_2\text{C}(\text{CH}_3)_2\text{OCH}_3$,
- v) $-\text{C}(\text{O})(\text{tert-butyl})$,

- vi) cyclobutyl substituted with 2 fluoro groups,
- vii) cyclohexyl substituted with 2 fluoro groups, or
- viii) tetrahydropyranyl substituted with one methyl group.

93. The compound of any one of claims 1-91, or a pharmaceutically acceptable salt thereof, wherein one of R^{15} and R^{16} is H.

94. The compound of any one of claims 1-81, or a pharmaceutically acceptable salt thereof, wherein X is a 4-8 membered monocyclic, fused bicyclic, bridged bicyclic, or spirocyclic heterocyclyl having 1 or 2 heteroatoms independently selected from N and O, wherein the 4-8 membered monocyclic, fused bicyclic, bridged bicyclic, or spirocyclic heterocyclyl is optionally substituted with 1-5 R^{18} .

95. The compound of any one of claims 1-81 and 94, or a pharmaceutically acceptable salt thereof, wherein X is:



which is optionally substituted with 1-5 R^{18} .

96. The compound of any one of claims 1-81 and 94, or a pharmaceutically acceptable salt thereof, wherein X is azetidinyl, pyrrolidinyl, piperidinyl, or morpholinyl, each of which is optionally substituted with 1-5 R^{18} .

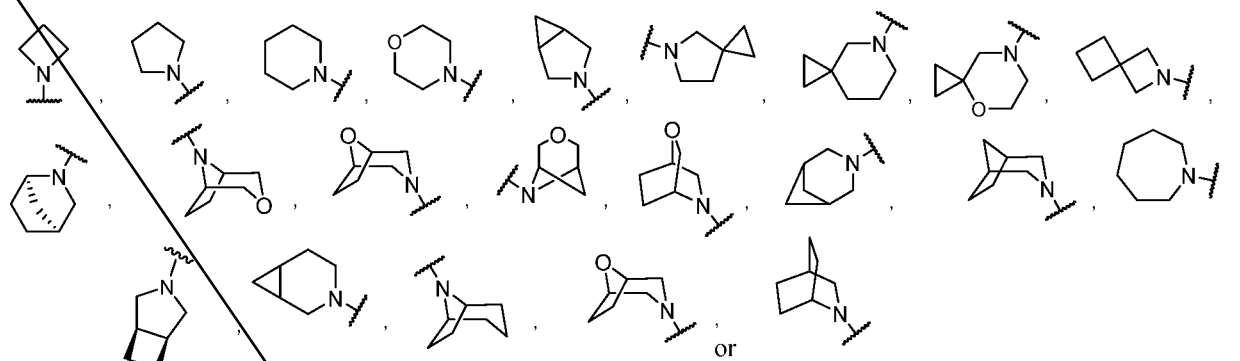
97. The compound of any one of claims 1-81 and 94, or a pharmaceutically acceptable salt thereof, wherein X is azetidinyl optionally substituted with 1-4 R^{18} .

98. The compound of any one of claims 1-81 and 94, or a pharmaceutically acceptable salt thereof, wherein X is pyrrolidinyl optionally substituted with 1-5 R^{18} .

99. The compound of any one of claims 1-81 and 94, or a pharmaceutically acceptable salt thereof, wherein X is piperidinyl optionally substituted with 1-5 R^{18} .

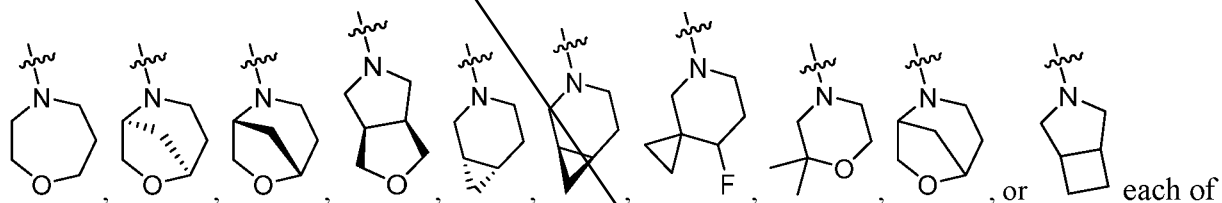
100. The compound of any one of claims 1-81 and 94, or a pharmaceutically acceptable salt thereof, wherein X is morpholinyl optionally substituted with 1-5 R^{18} .

101. The compound of any one of claims 1-81, 94, and 95, or a pharmaceutically acceptable salt thereof, wherein Y is:



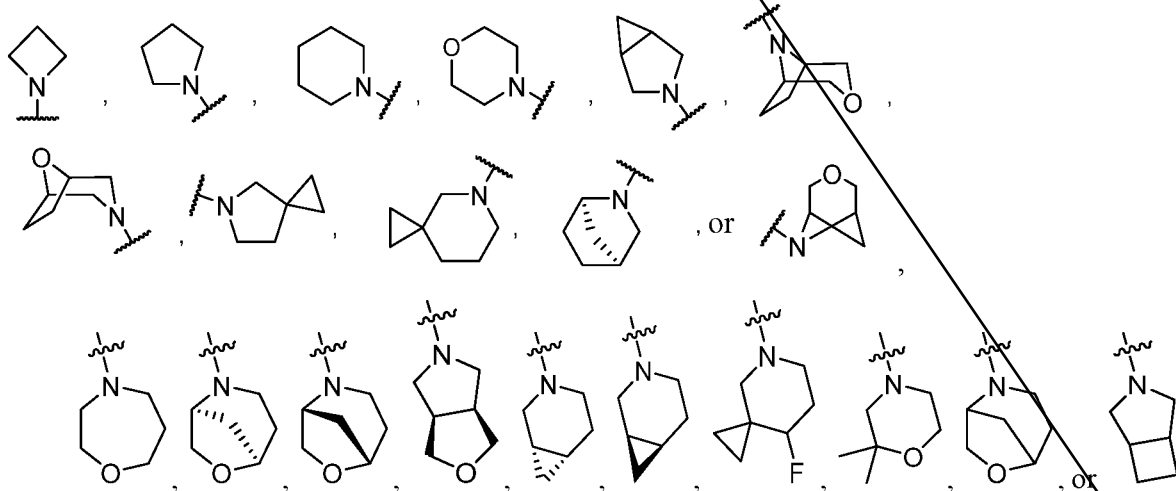
each of which is optionally substituted with 1-5 R^{18} .

102. The compound any one of claims 1-81, 94, 95, and 101, or a pharmaceutically acceptable salt thereof, wherein X is:



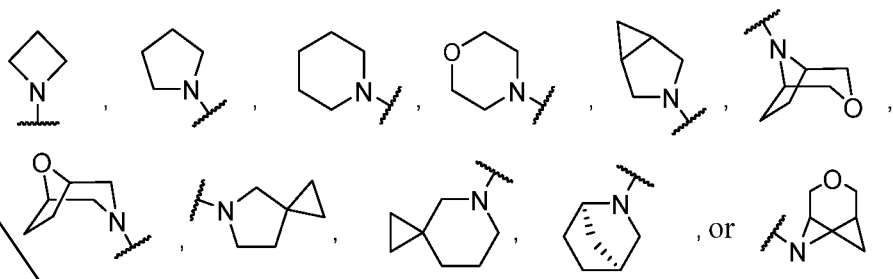
which is optionally substituted with 1-5 R^{18} .

103. The compound any one of claims 1-81, 94, 95, and 101, or a pharmaceutically acceptable salt thereof, wherein X is:



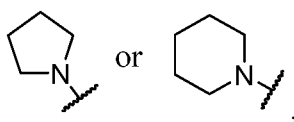
each of which is optionally substituted with 1-5 R^{18} .

104. The compound of any one of claims 1-81, 94, 95, and 101, or a pharmaceutically acceptable salt thereof, wherein X is:



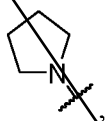
each of which is optionally substituted with 1-5 R^{18} .

105. The compound of any one of claims 1-81, 94-96, 101, and 104, or a pharmaceutically acceptable salt thereof, wherein X is:



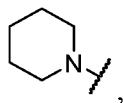
each of which is optionally substituted with 1-4 R^{18} .

106. The compound of any one of claims 1-81, 94-96, 98, and 101-105, or a pharmaceutically acceptable salt thereof, wherein X is:



which is optionally substituted with 1-3 R^{18} .

107. The compound of any one of claims 1-81, 94-96, 99, and 101-105, or a pharmaceutically acceptable salt thereof, wherein X is:



which is optionally substituted with 1-3 R^{18} .

108. The compound of any one of claims 1-81 and 94-107, or a pharmaceutically acceptable salt thereof, wherein each R^{18} is independently:

- i) -OH,
- ii) fluoro, or
- iii) C_{1-3} alkyl optionally substituted with 1-3 groups independently selected from -OH and halogen.

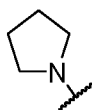
109. The compound of any one of claims 1-81 and 94-108, or a pharmaceutically acceptable salt thereof, wherein each R¹⁸ is independently:

- i) -OH,
- ii) fluoro, or
- iii) methyl optionally substituted with 1-3 groups independently selected from -OH and fluoro.

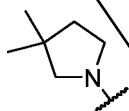
110. The compound of any one of claims 1-81 and 94-109, or a pharmaceutically acceptable salt thereof, wherein two R¹⁸ are attached to the same carbon.

111. The compound of any one of claims 1-81 and 94-110, or a pharmaceutically acceptable salt thereof, wherein one or more R¹⁸ is fluoro or methyl.

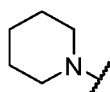
112. The compound of any one of claims 1-81, 94-96, and 101-105, or a pharmaceutically acceptable salt thereof, wherein X is:



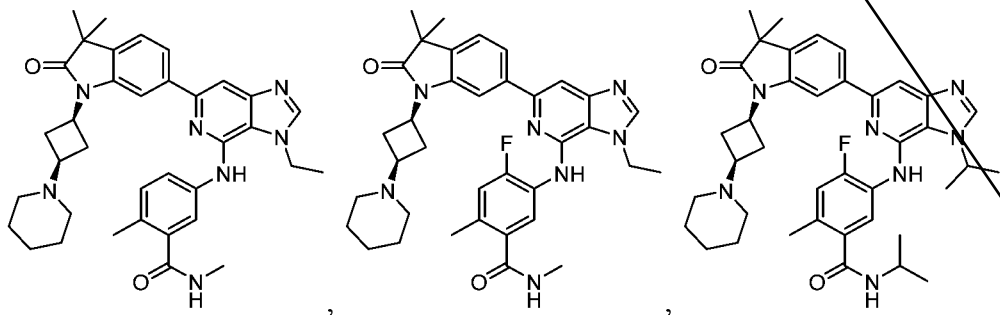
113. The compound of any one of claims 1-81, 94-96, and 101-105, or a pharmaceutically acceptable salt thereof, wherein X is:

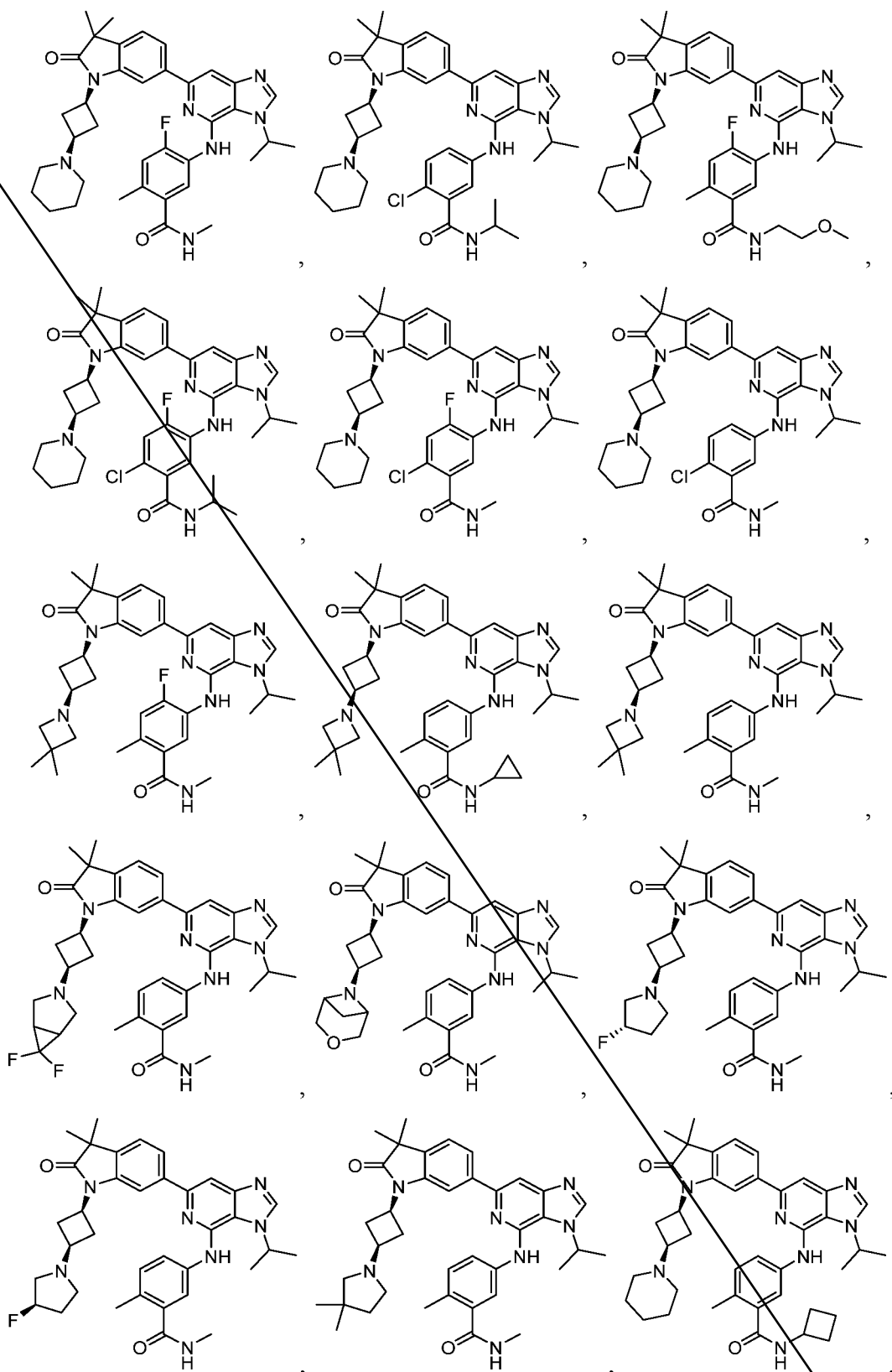


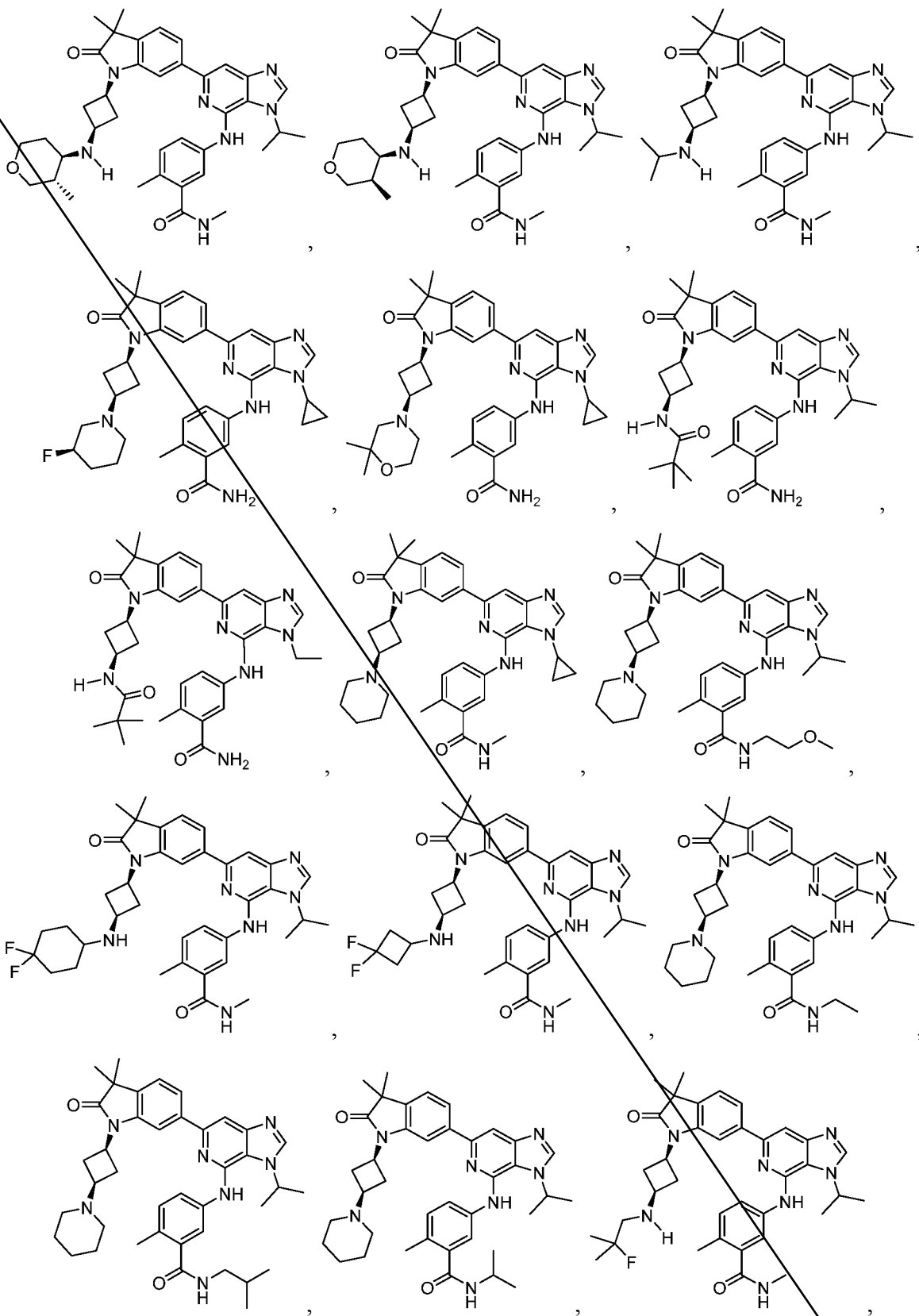
114. The compound of any one of claims 1-81, 94-96, 99, and 101-105, or a pharmaceutically acceptable salt thereof, wherein X is:

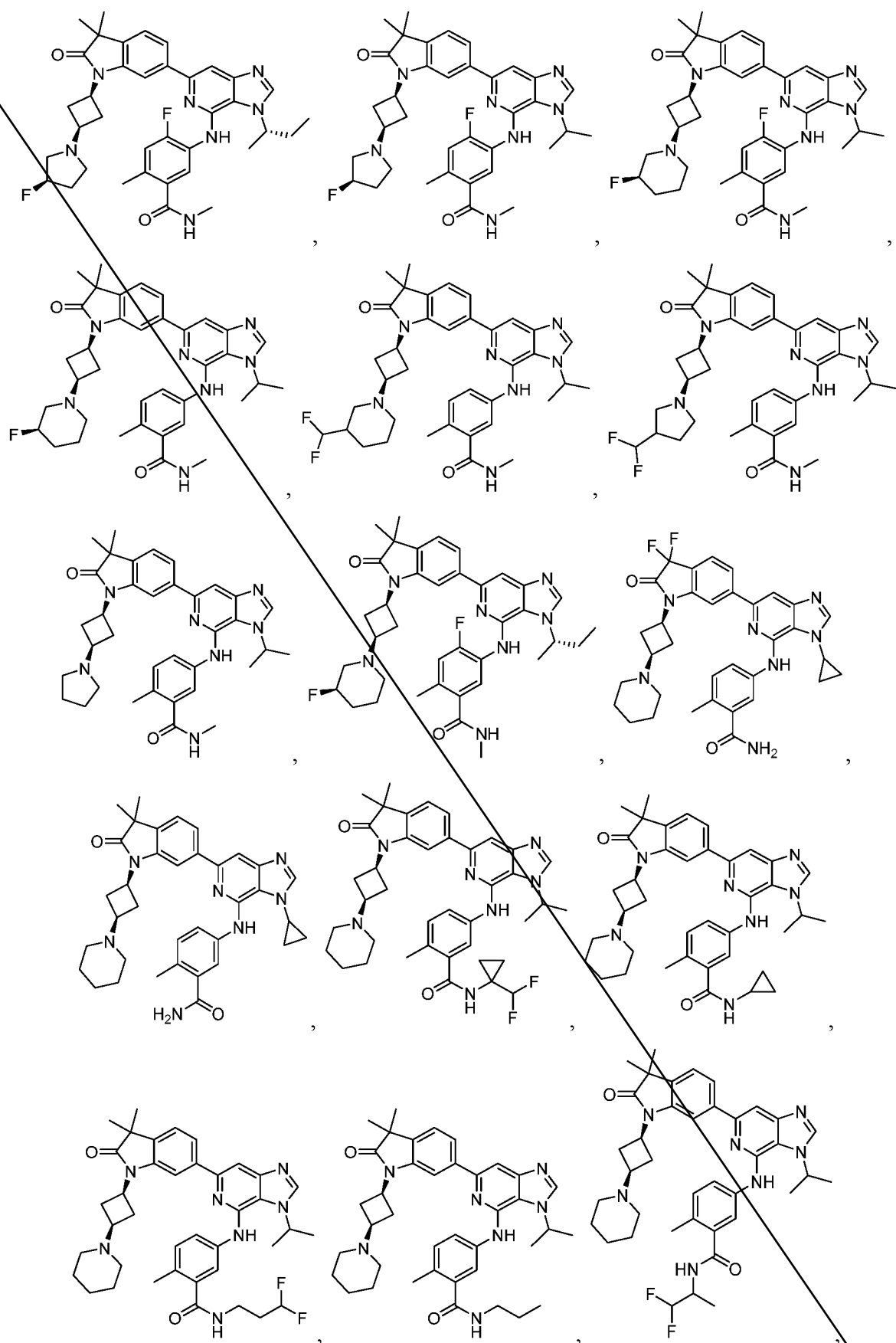


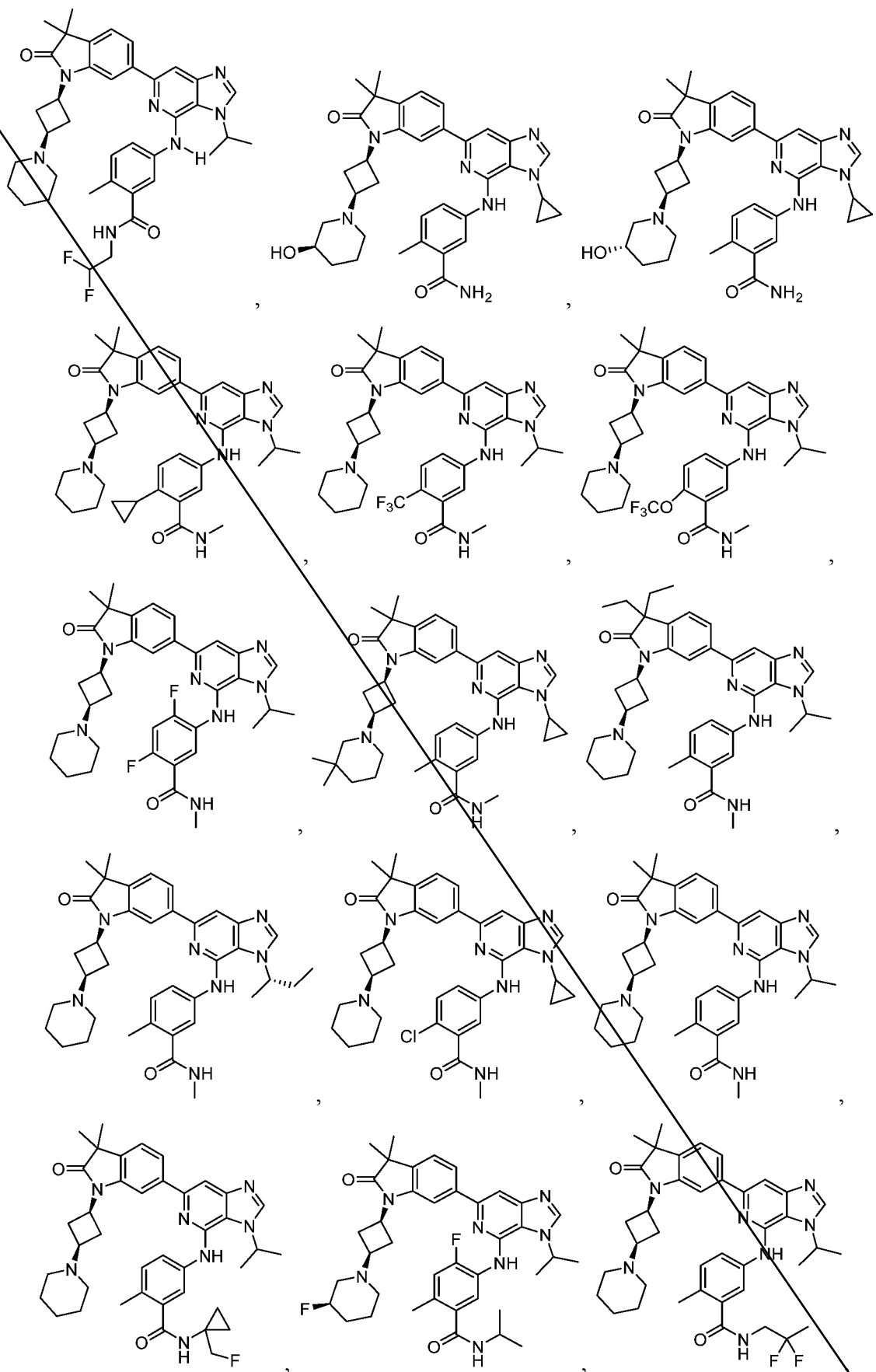
115. A compound selected from the group consisting of:

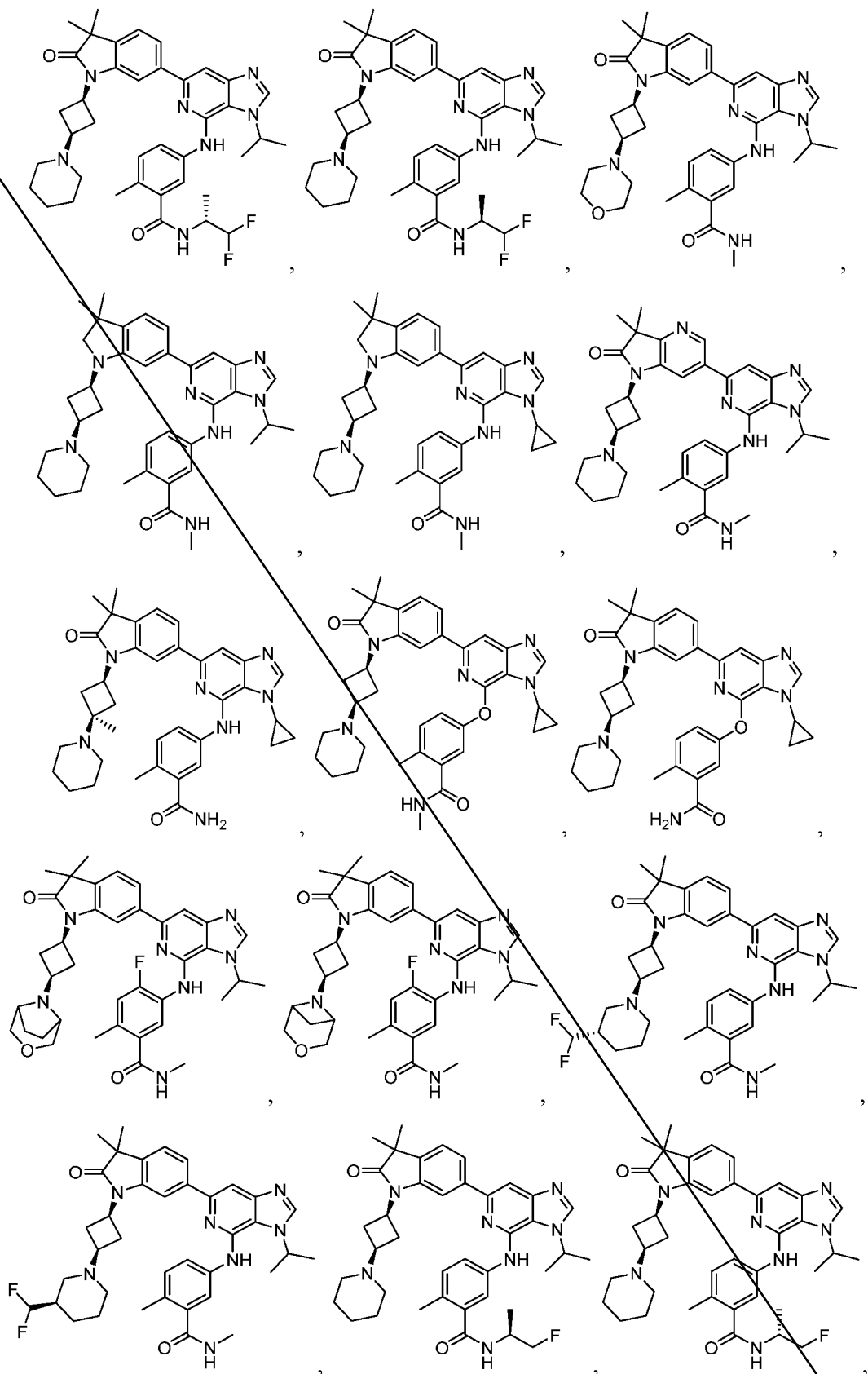


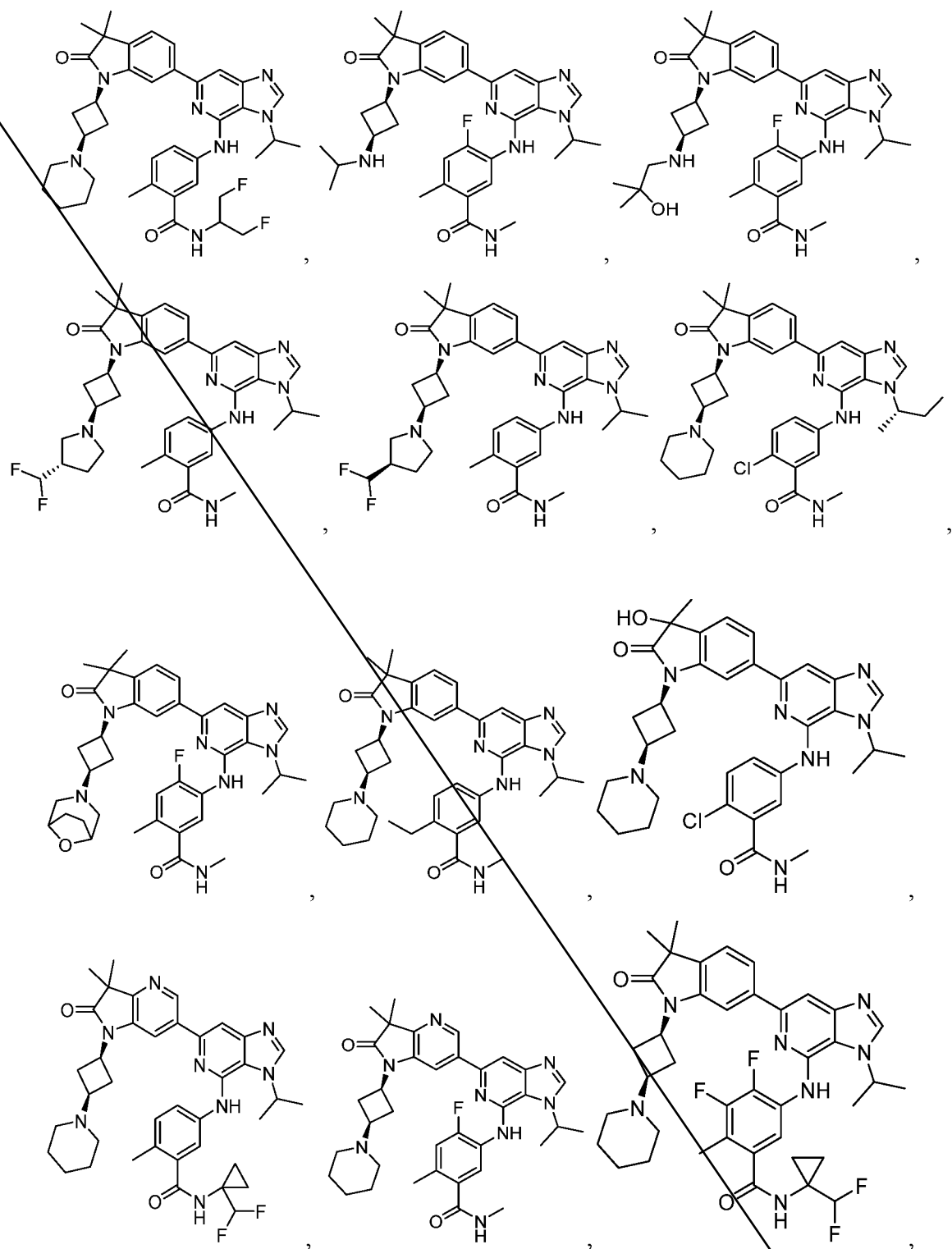


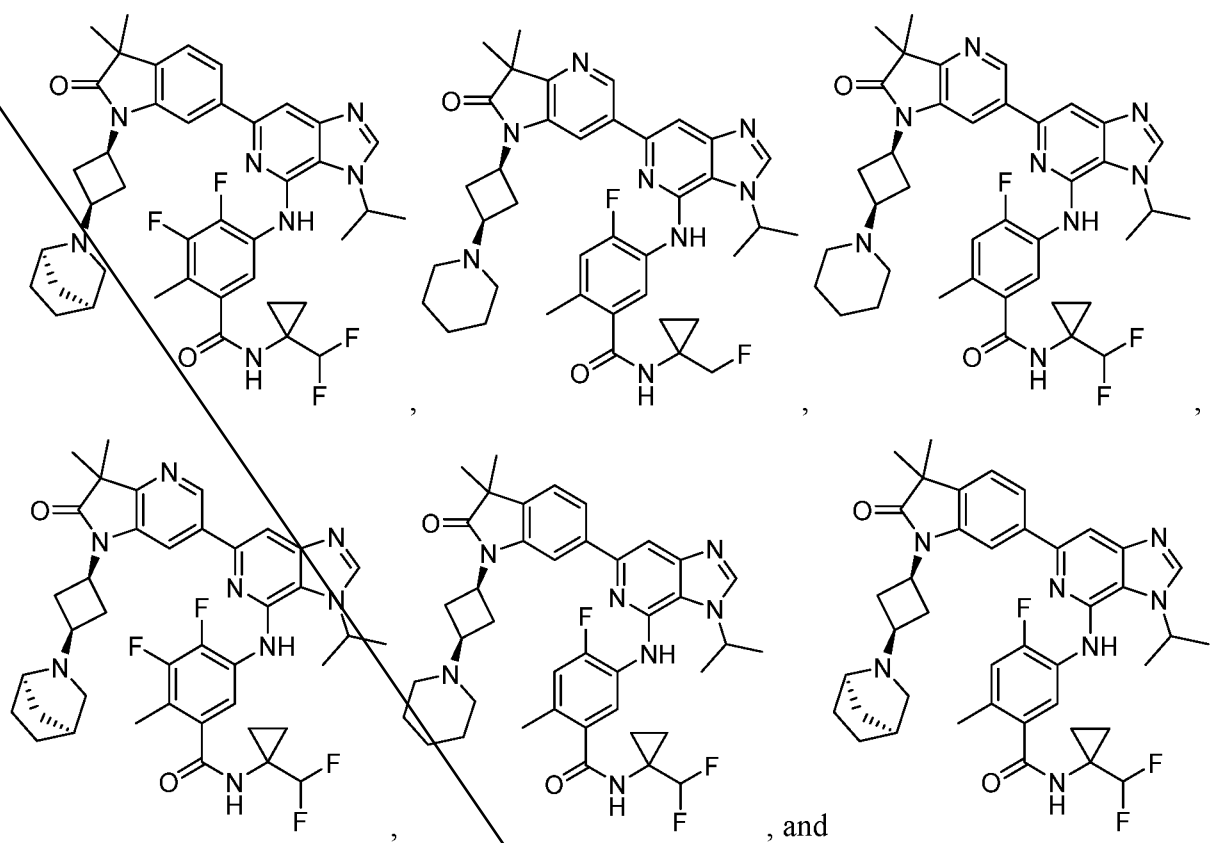






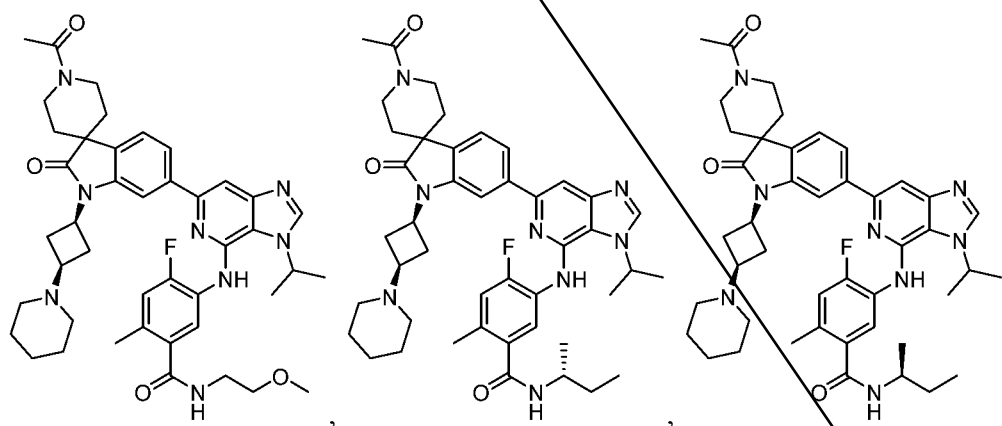


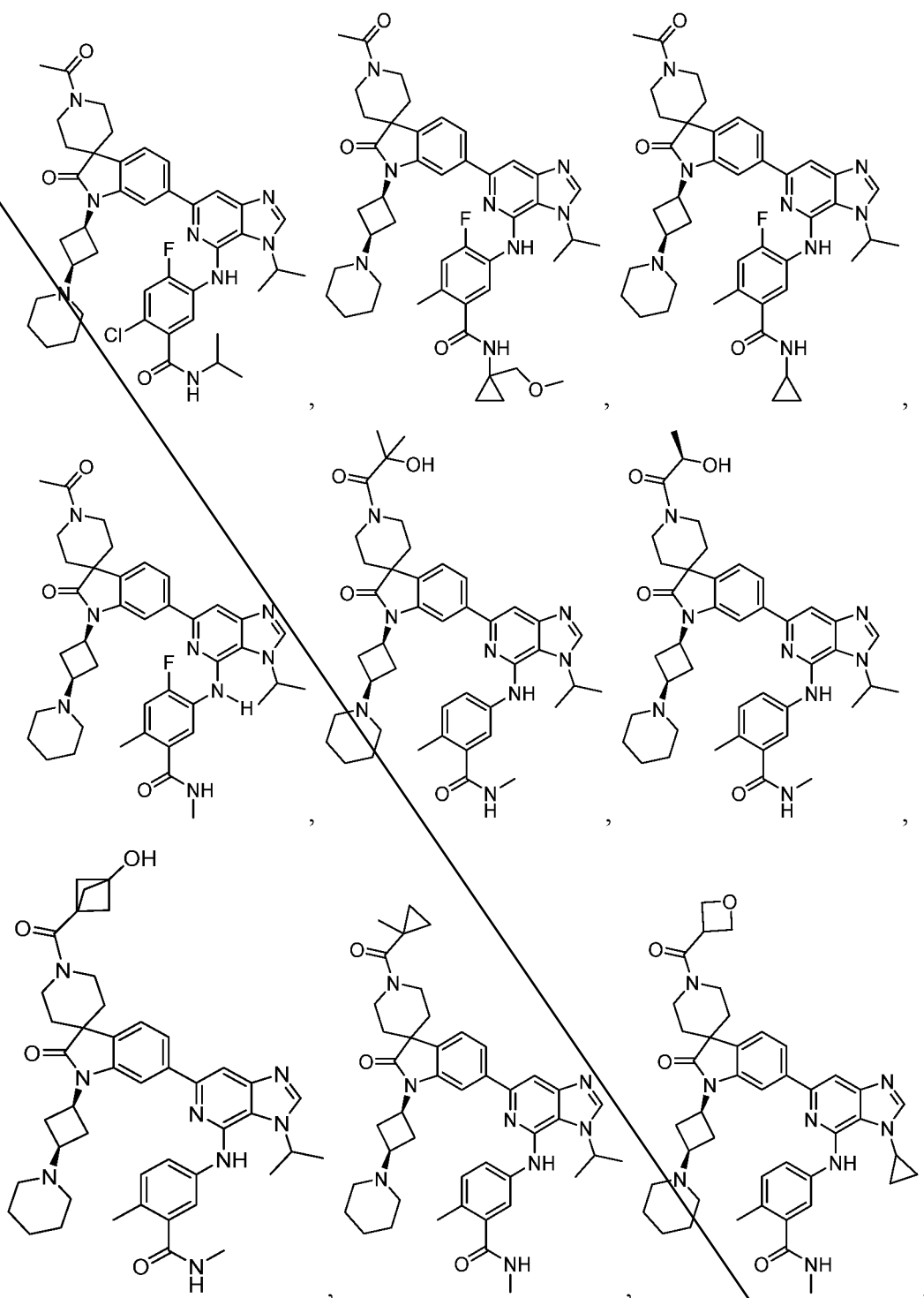


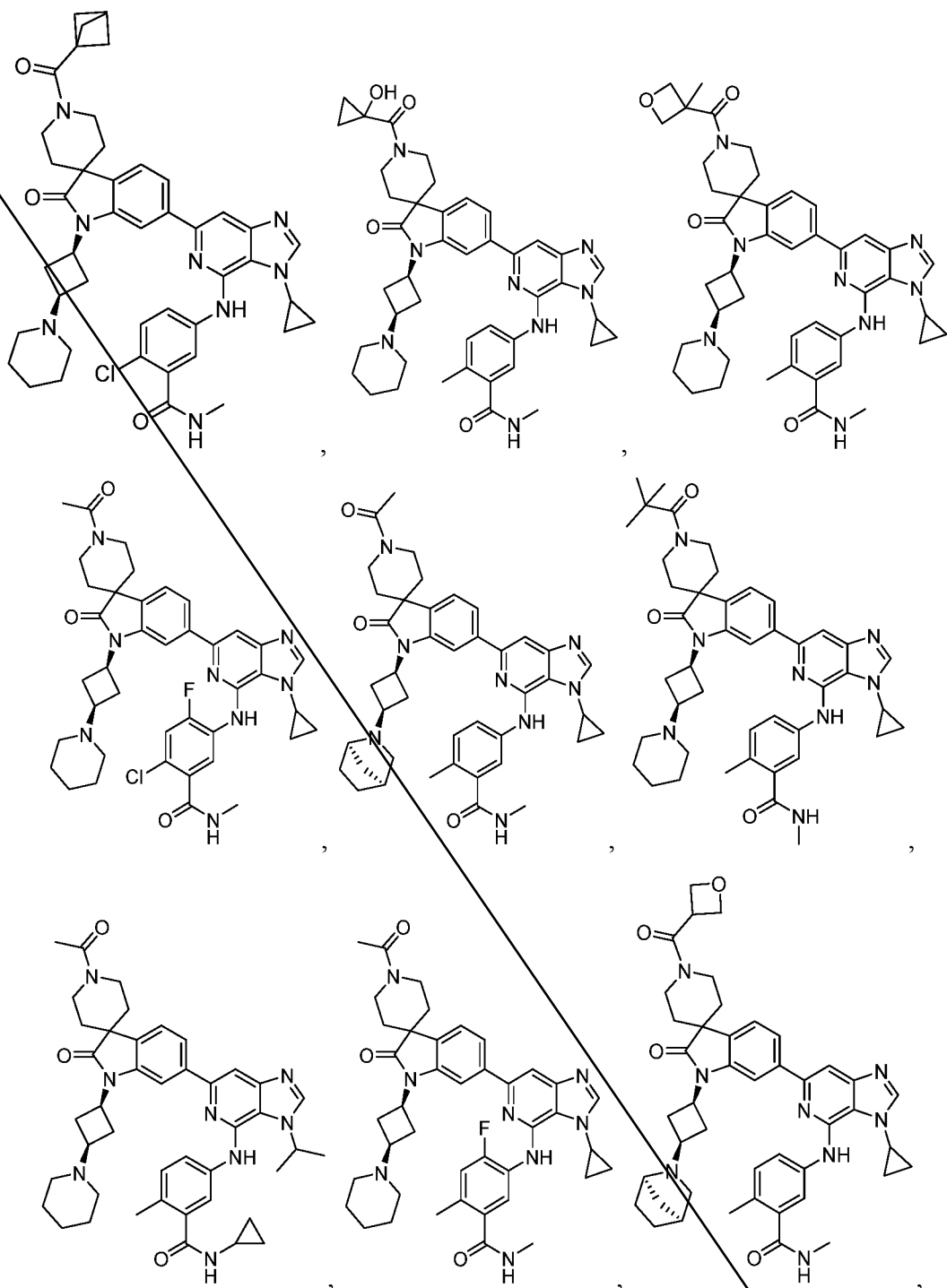


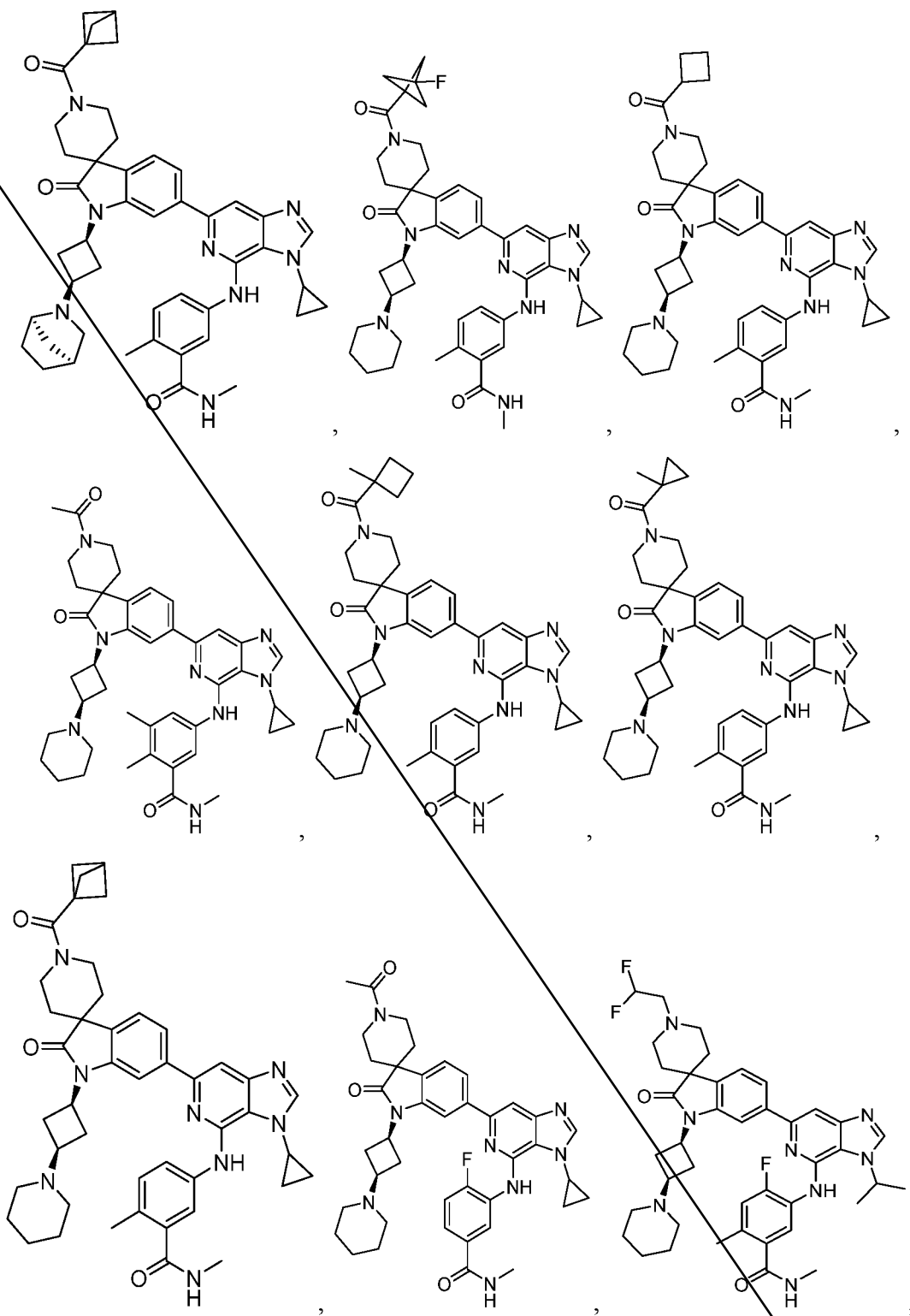
or a pharmaceutically acceptable salt thereof.

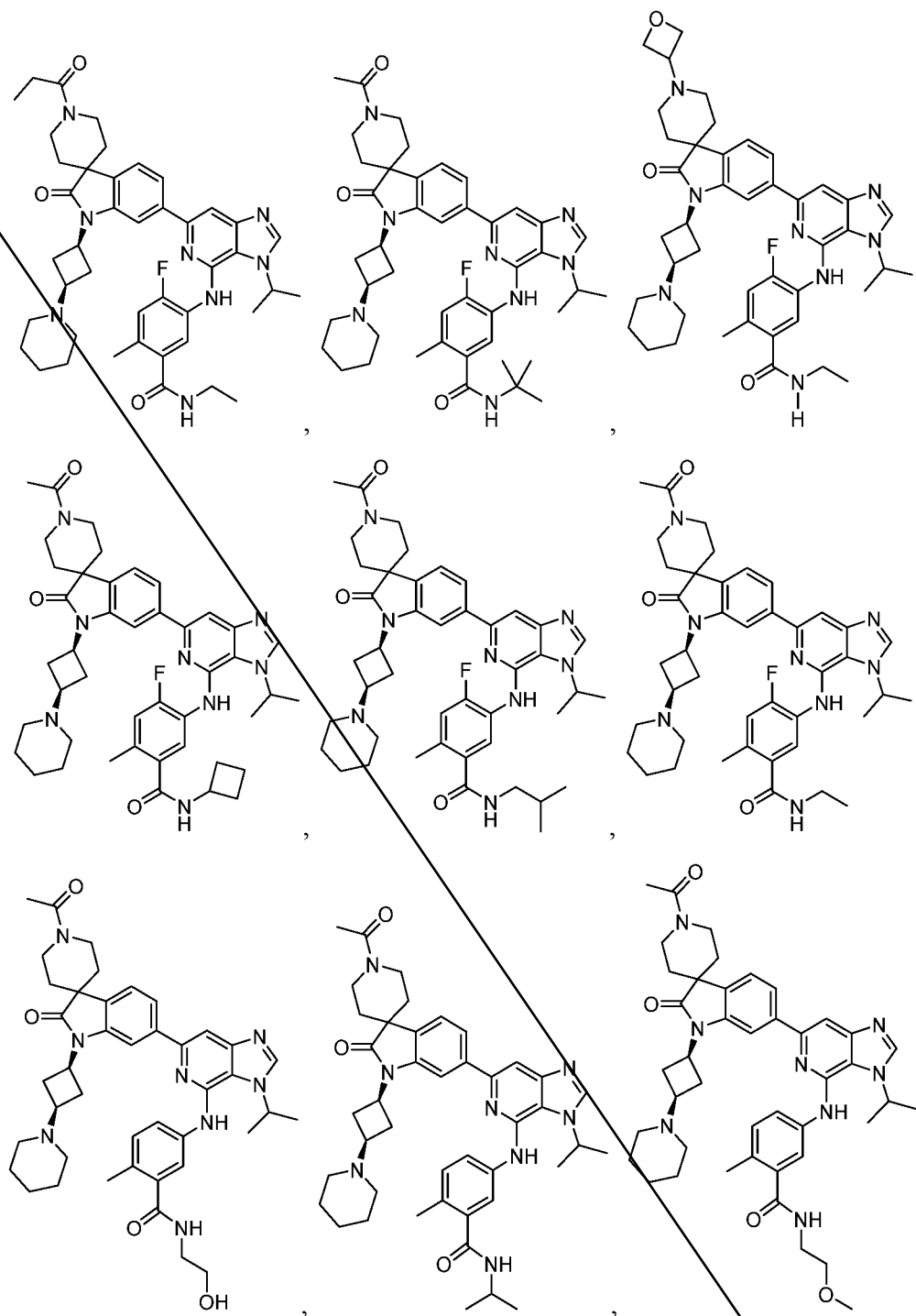
116. A compound selected from the group consisting of:

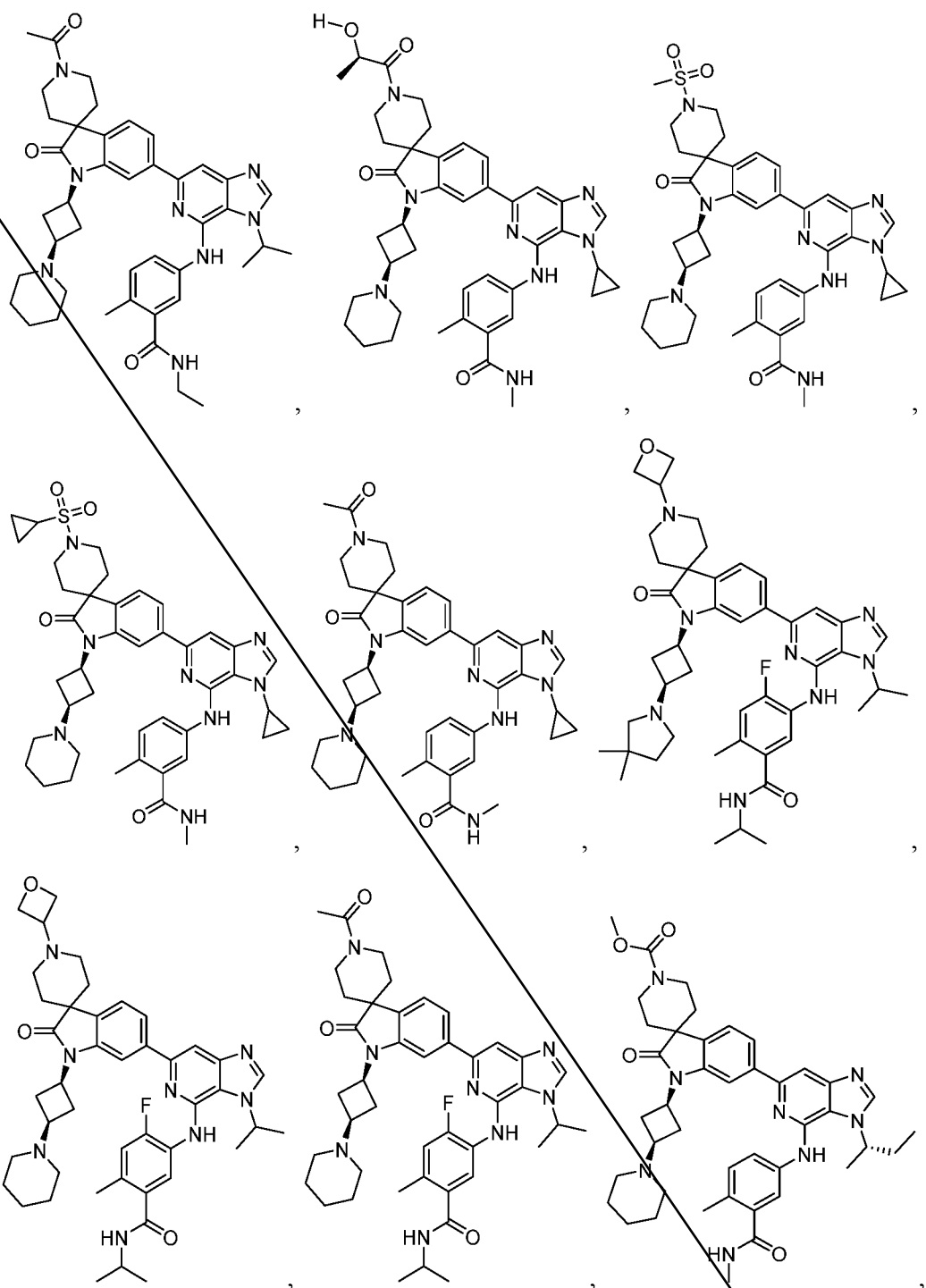


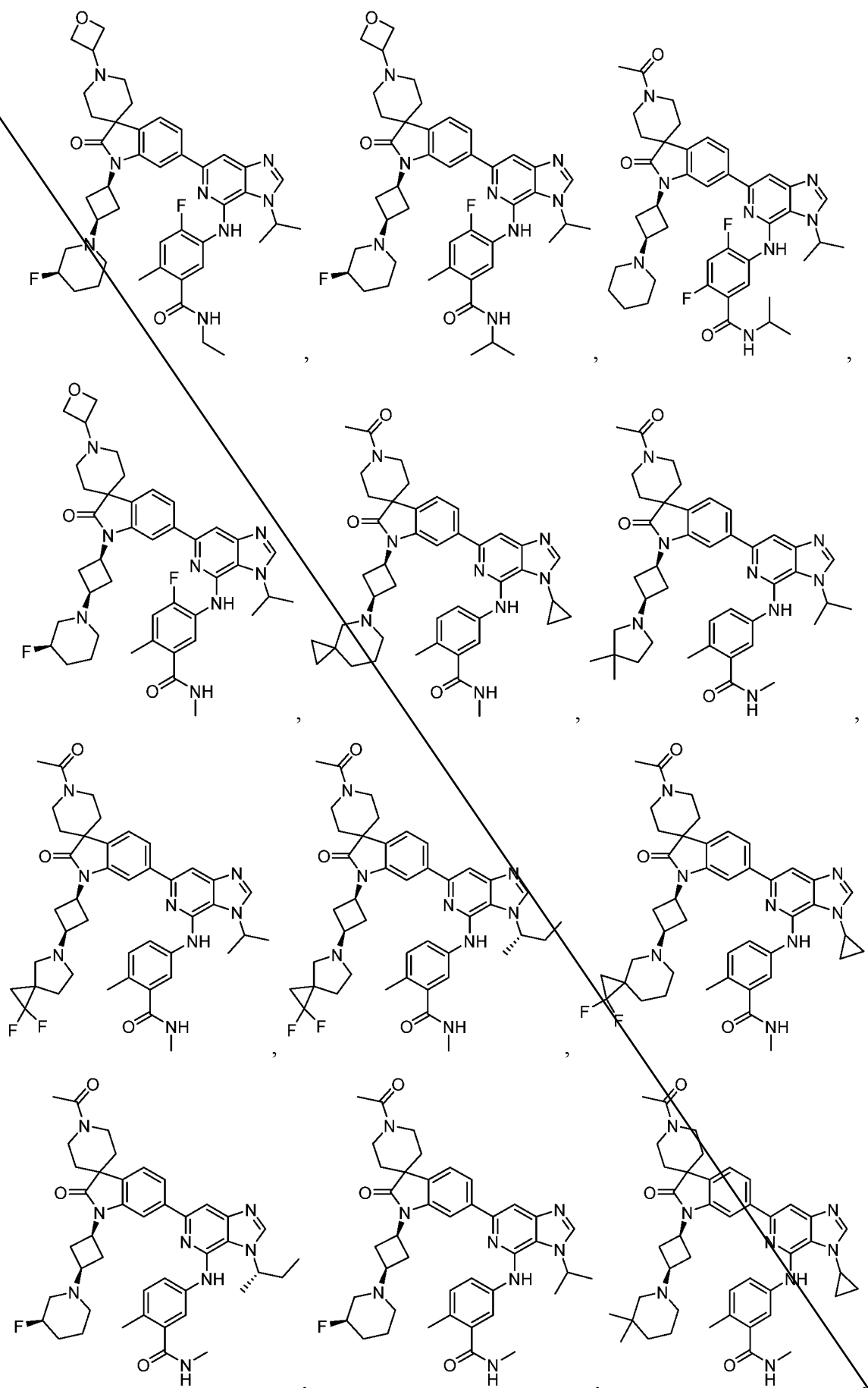


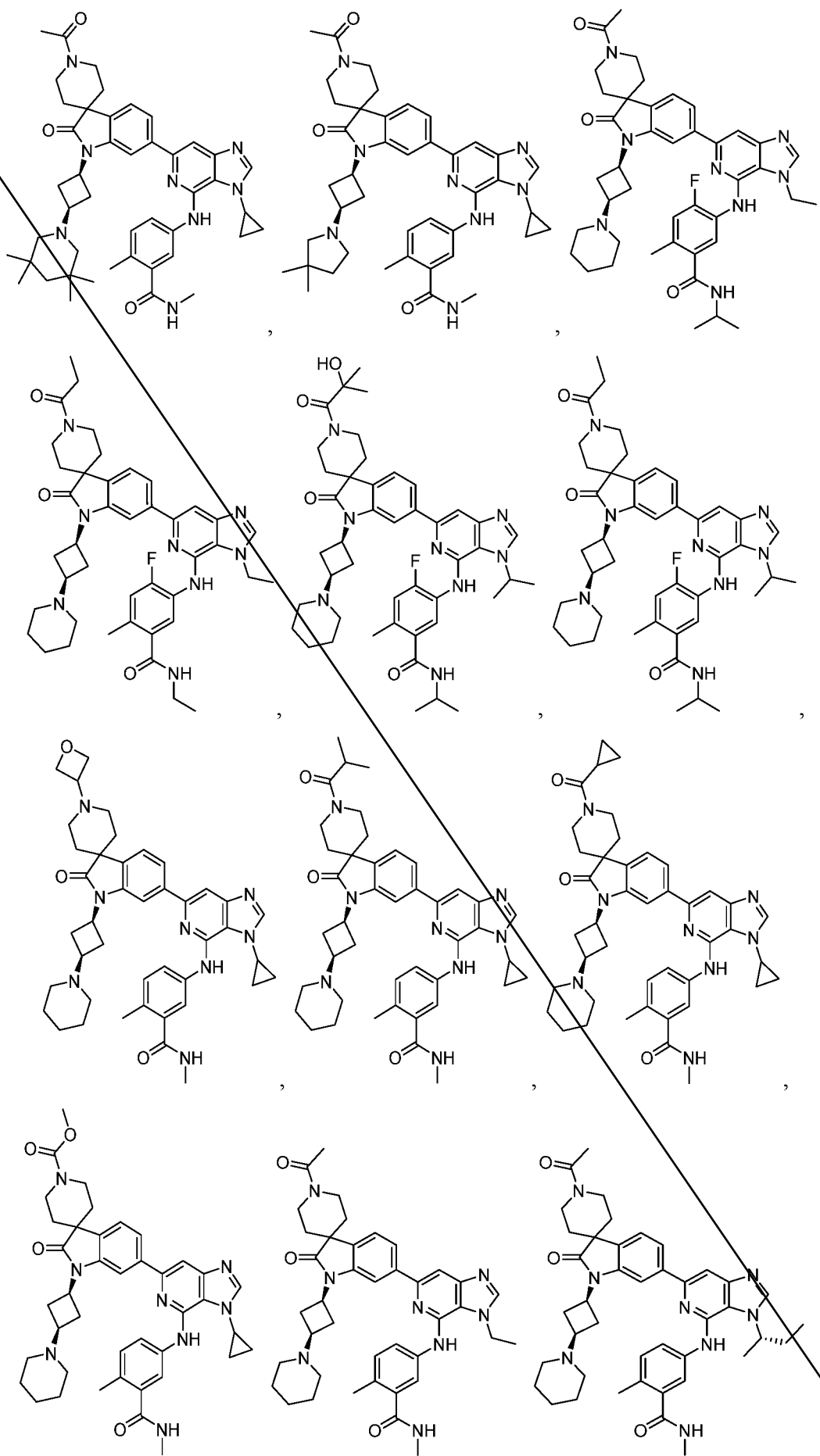


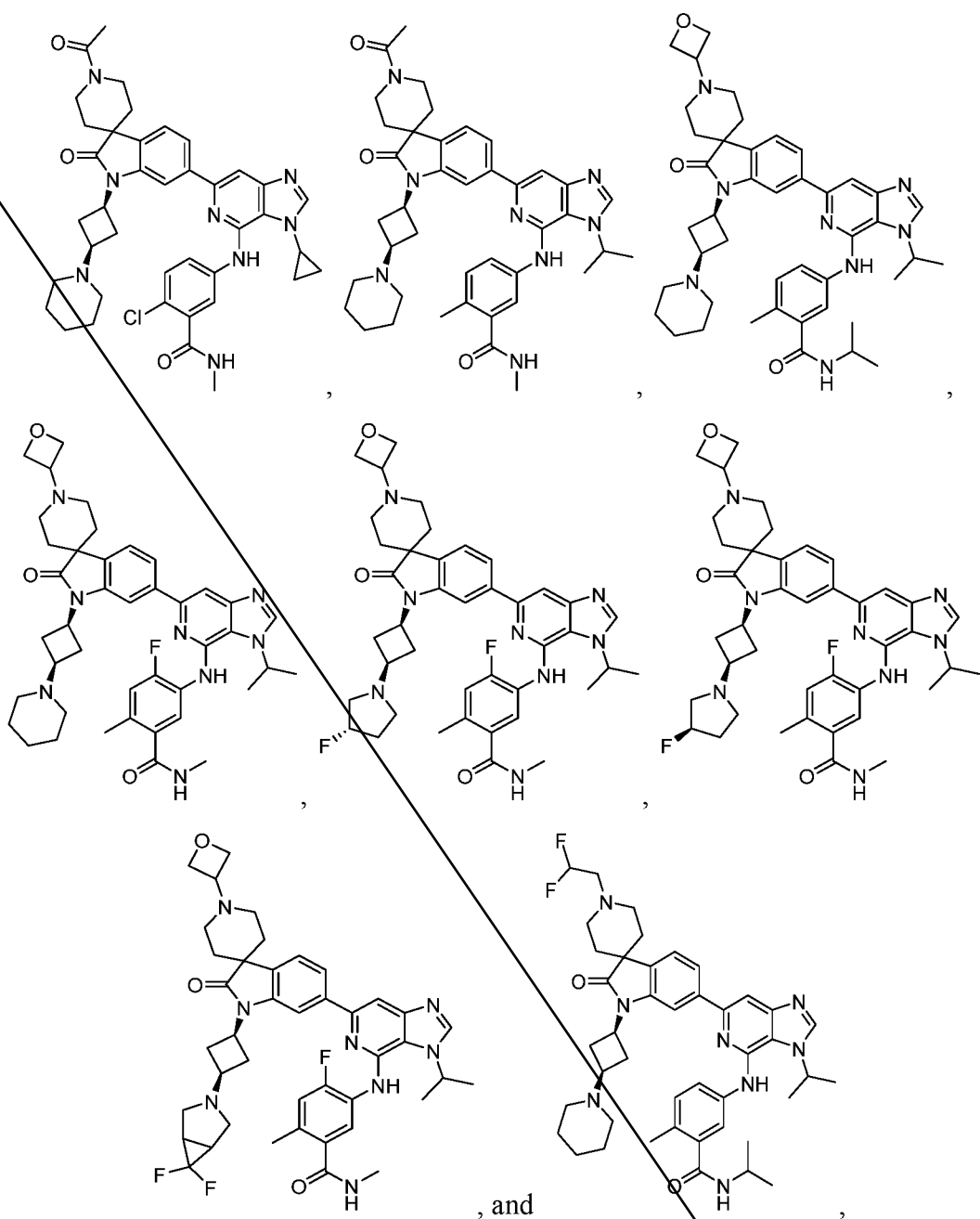






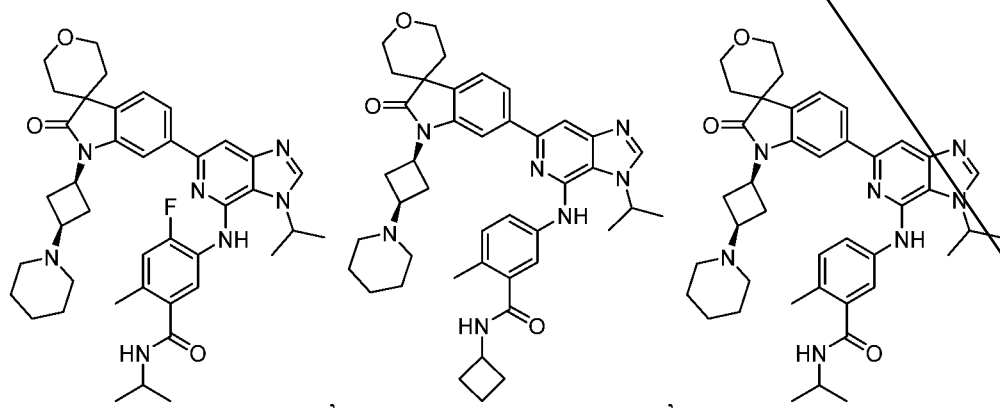


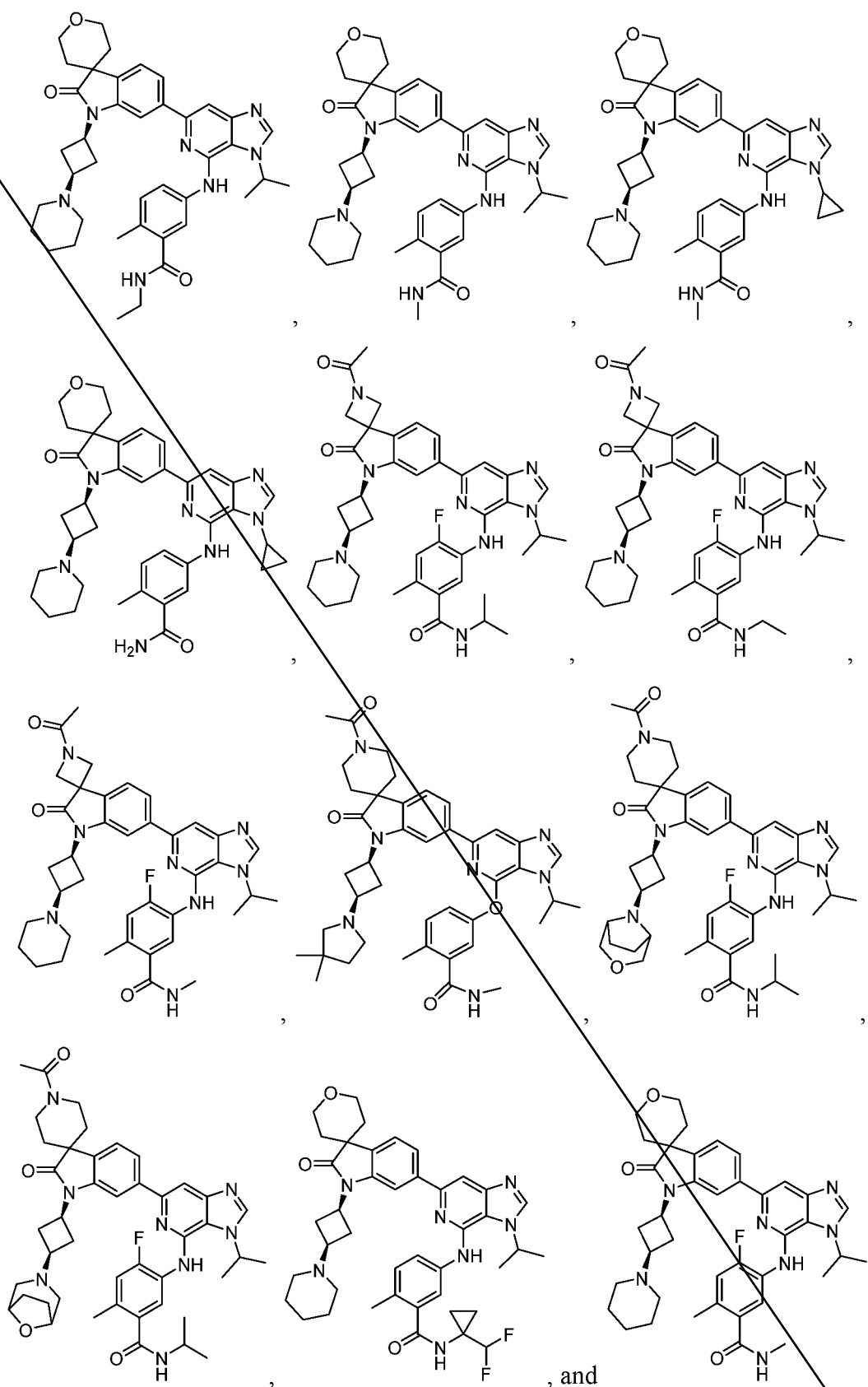




or a pharmaceutically acceptable salt thereof.

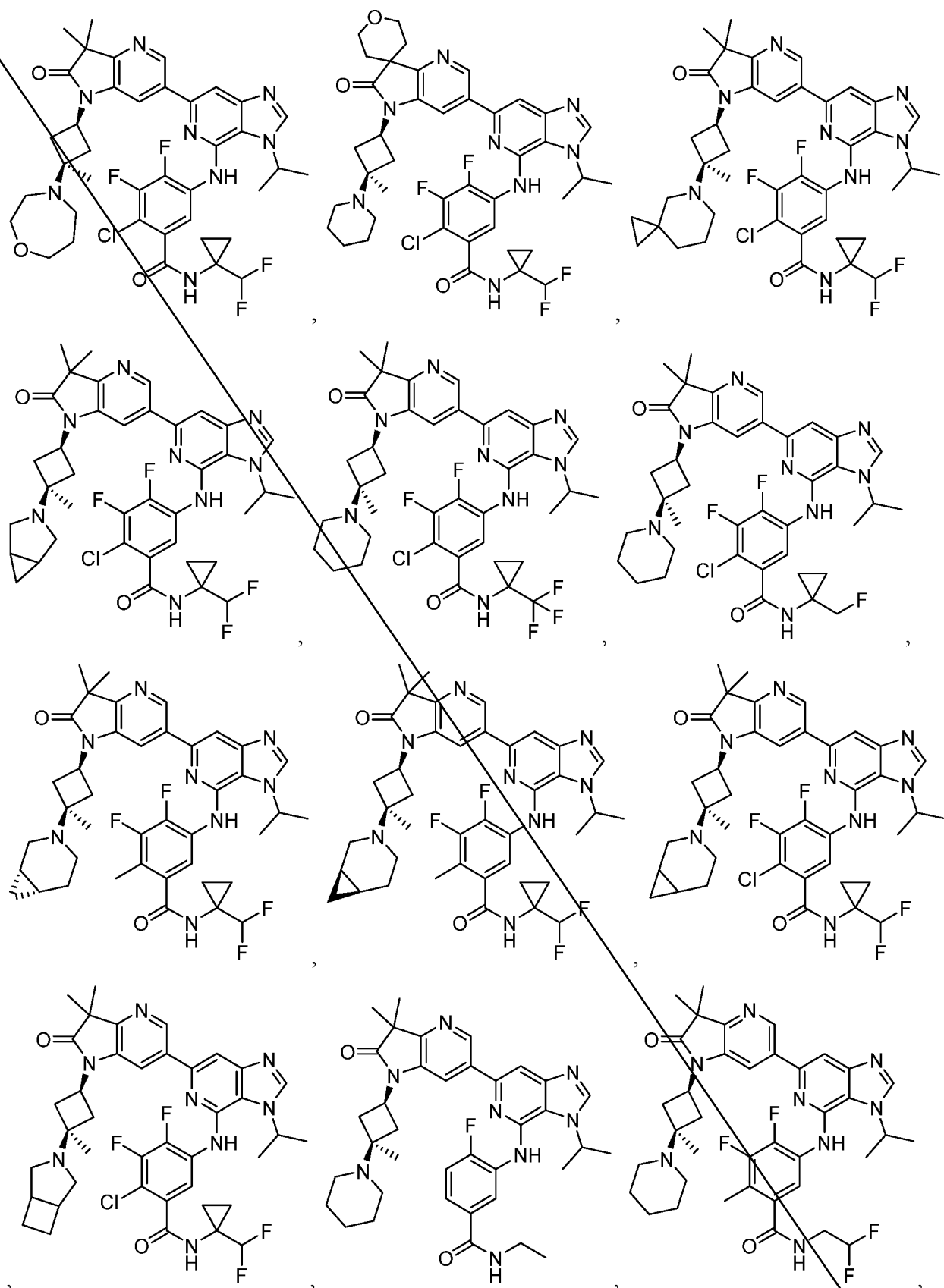
117. A compound selected from the group consisting of:

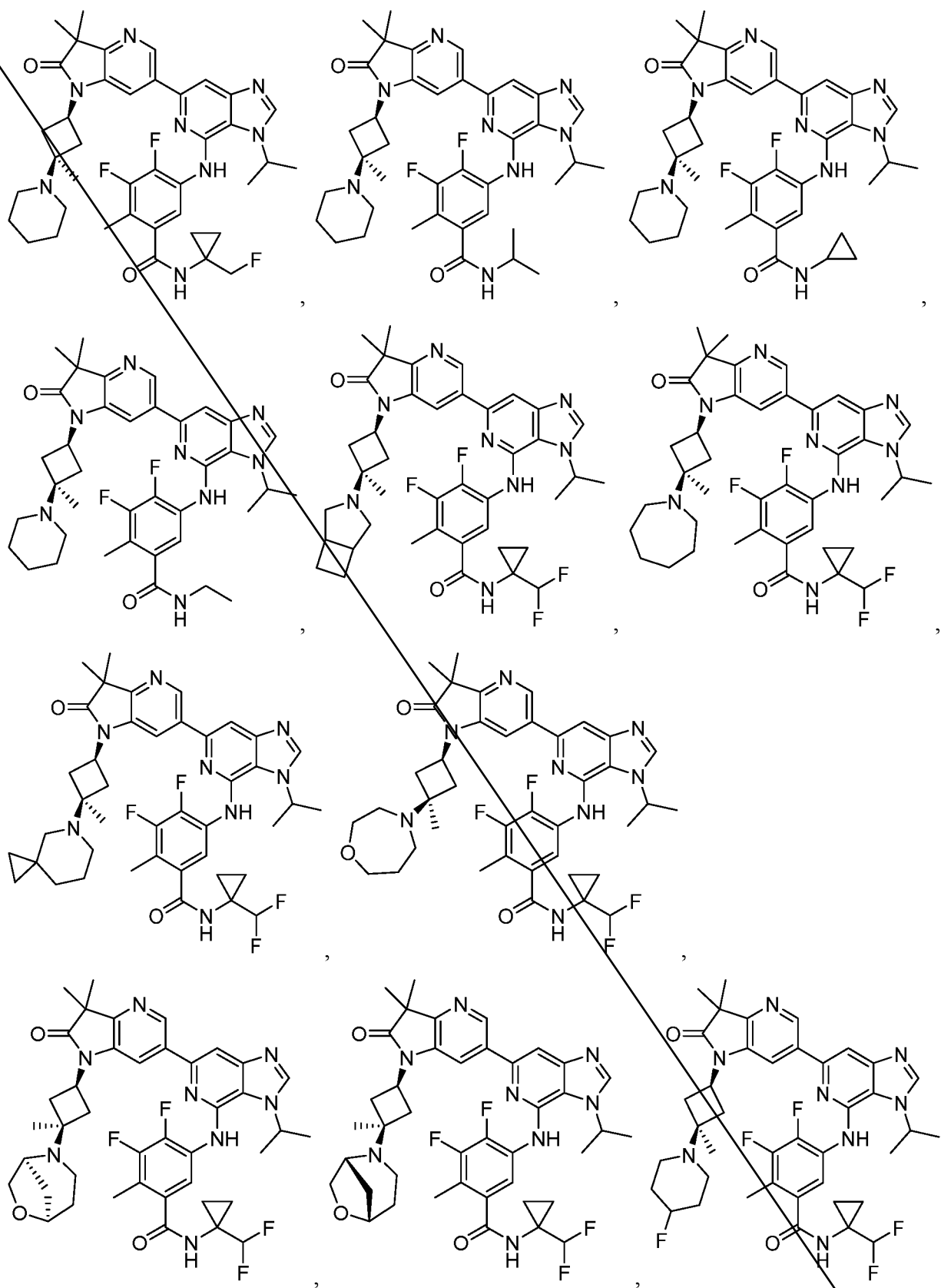


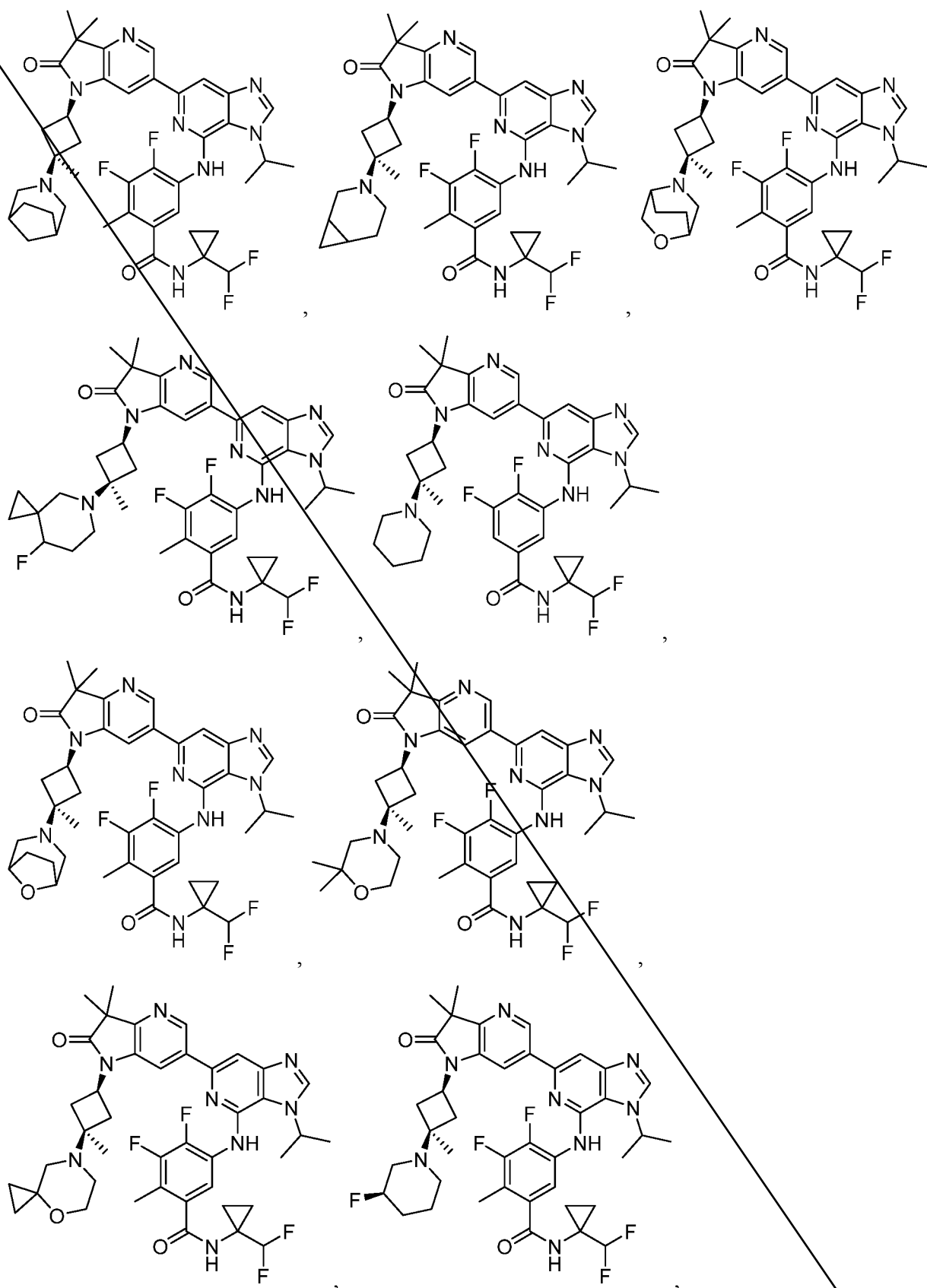


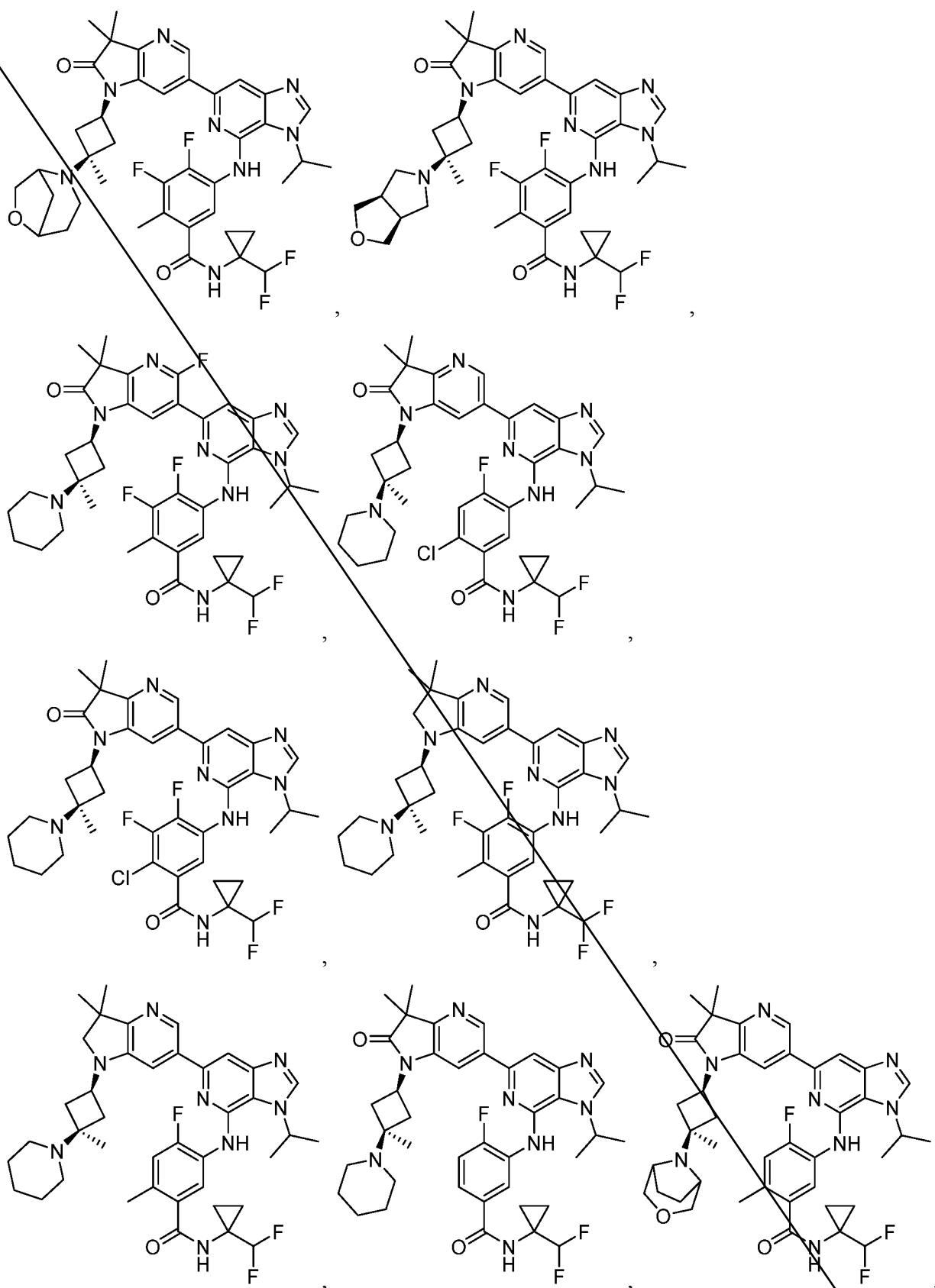
or a pharmaceutically acceptable salt thereof.

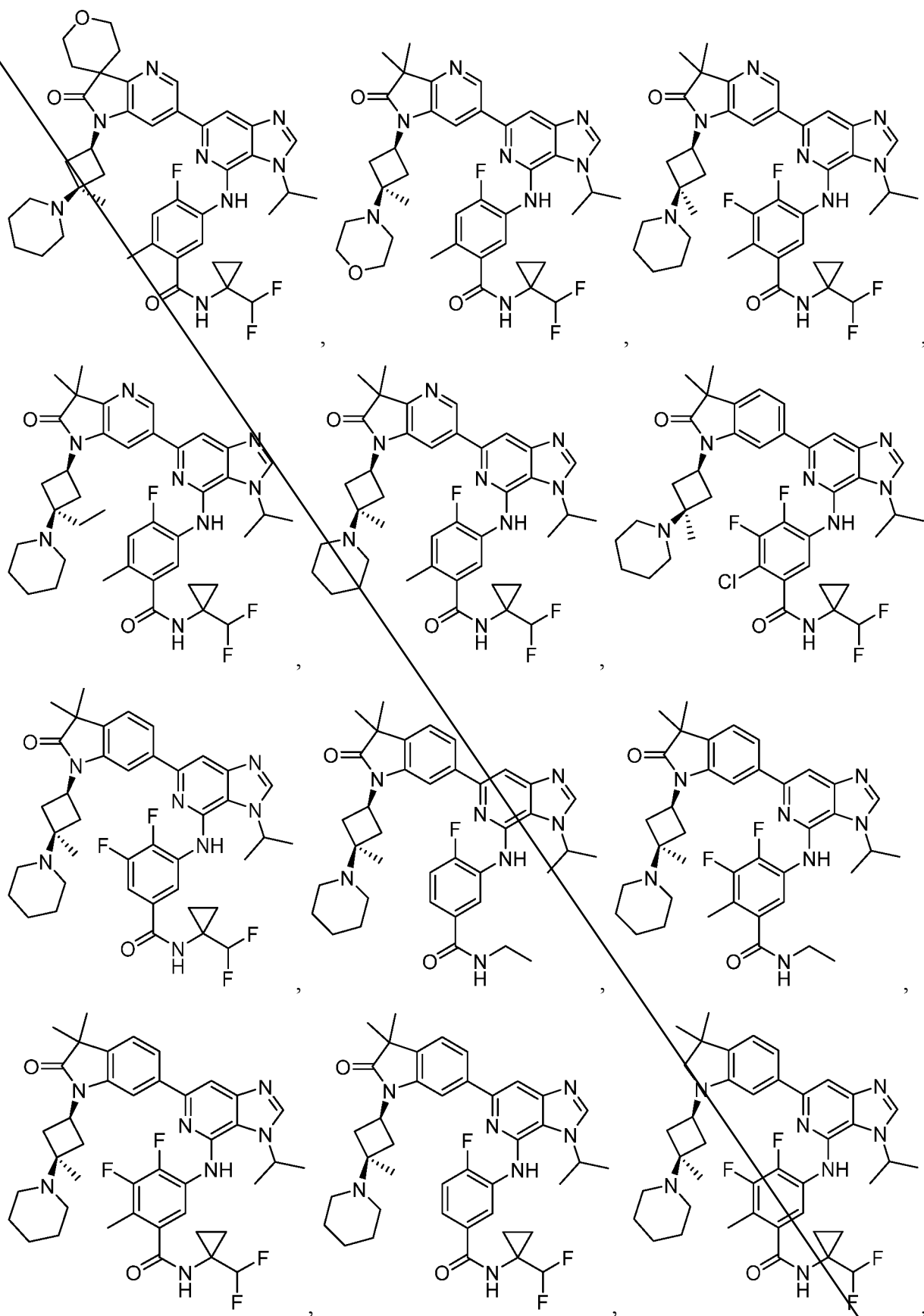
118. A compound selected from the group consisting of:

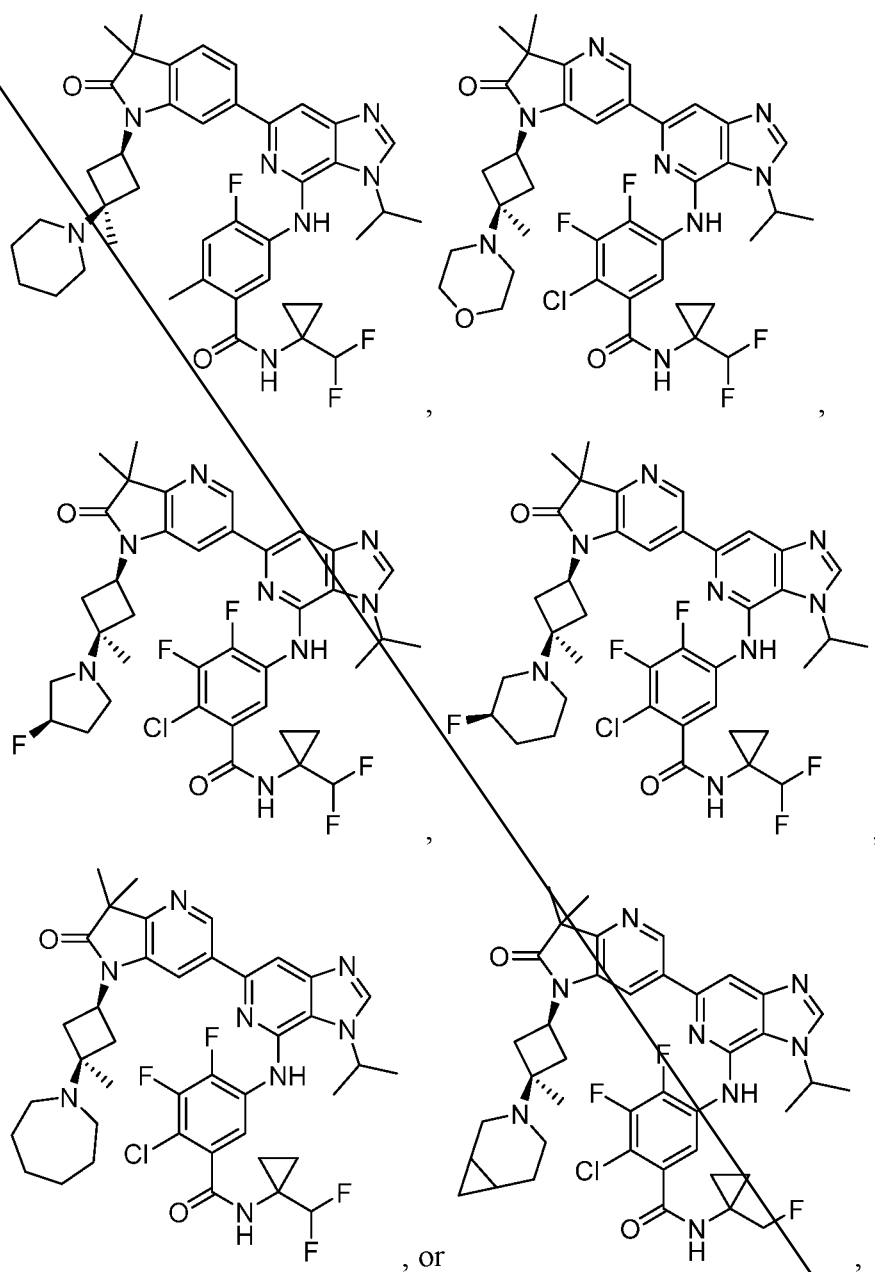






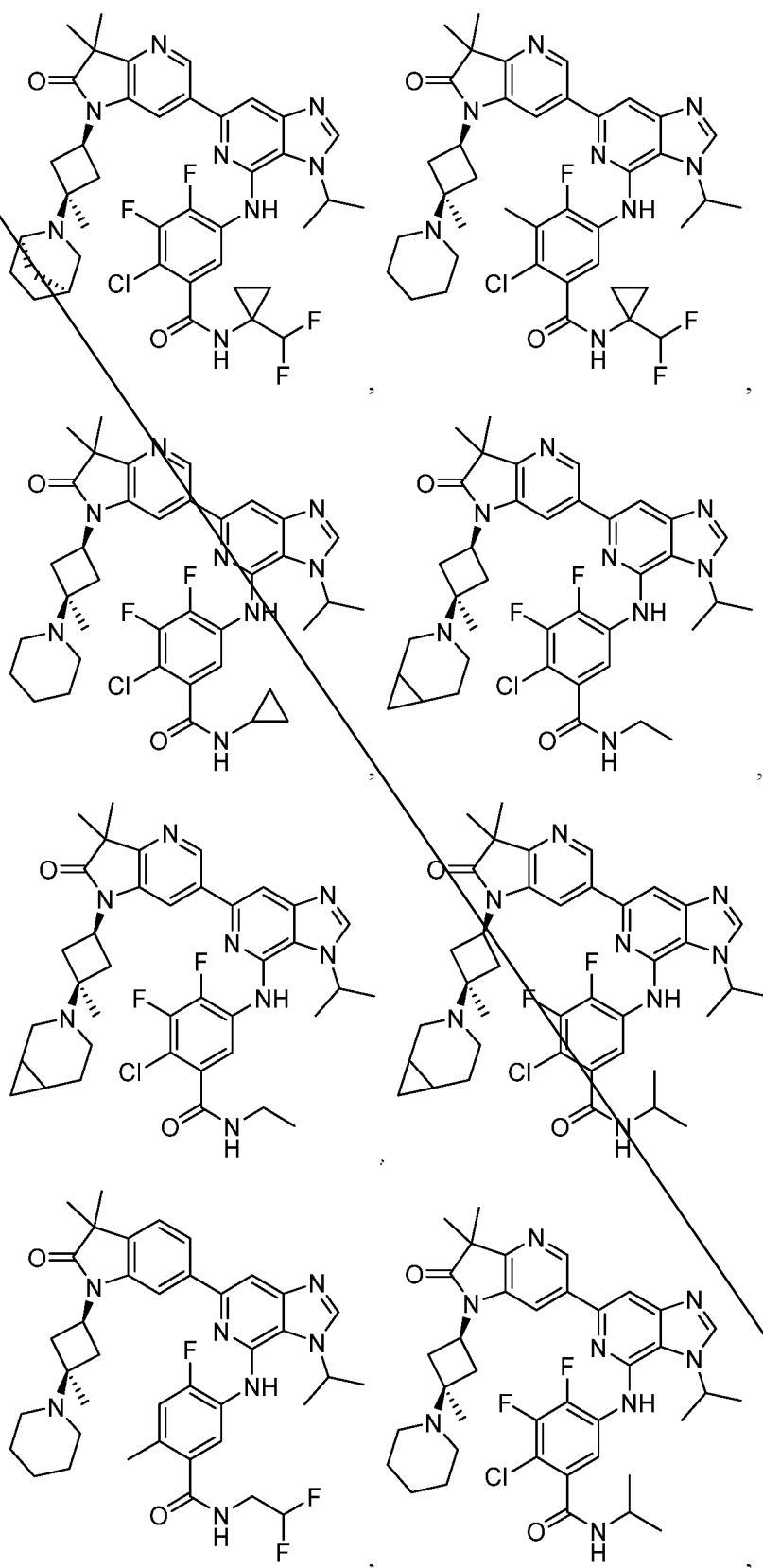




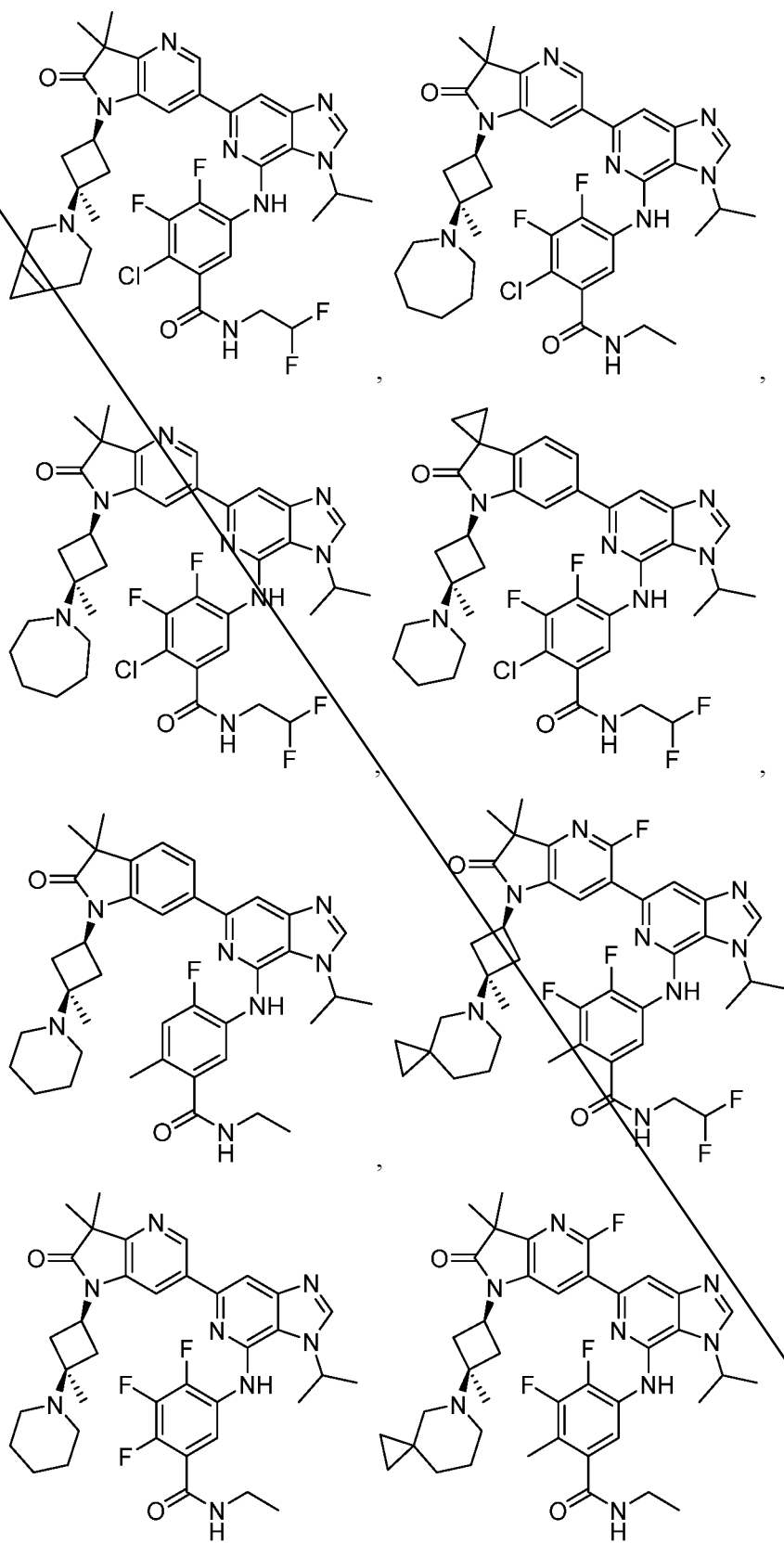


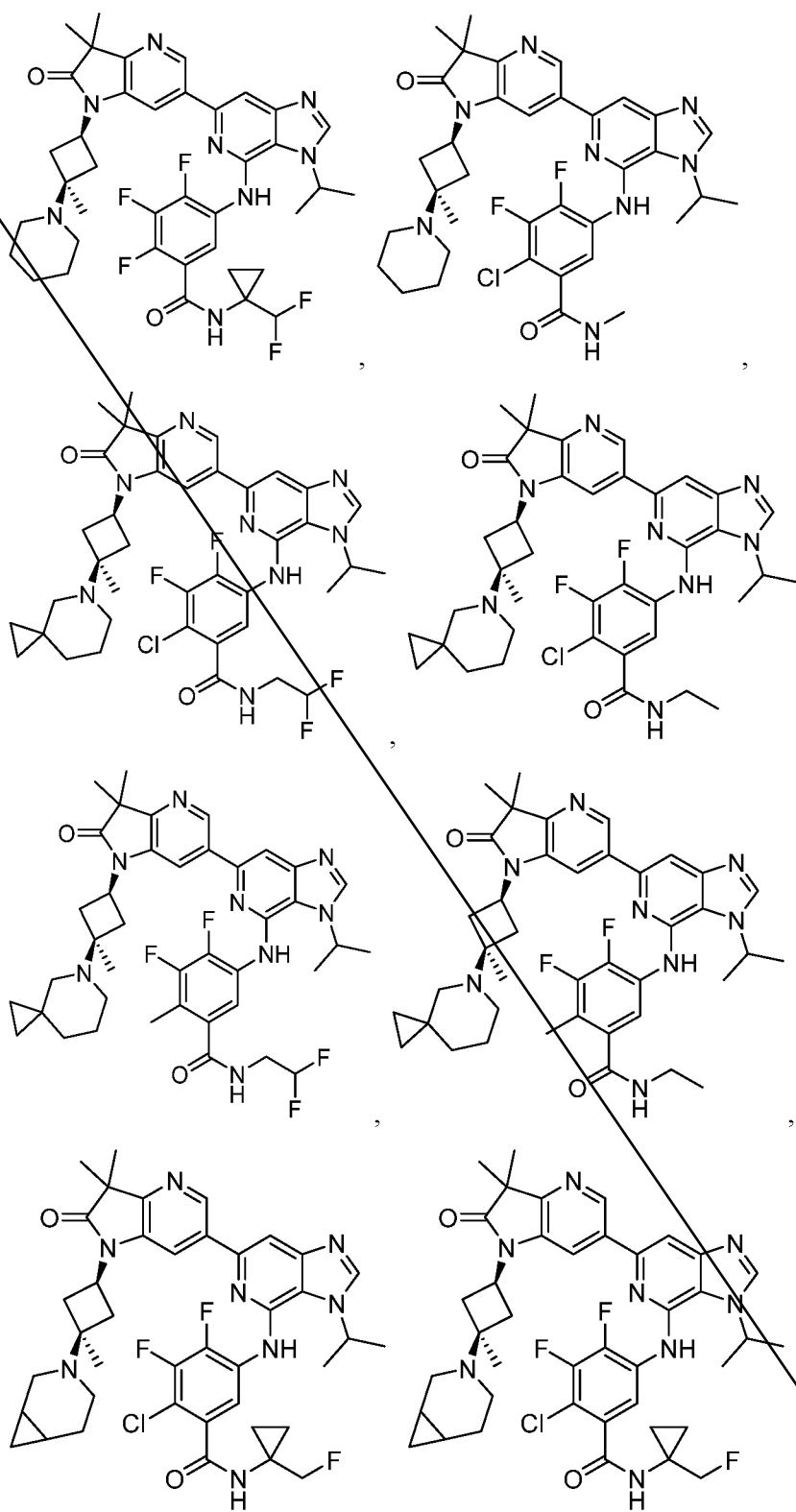
or a pharmaceutically acceptable salt thereof.

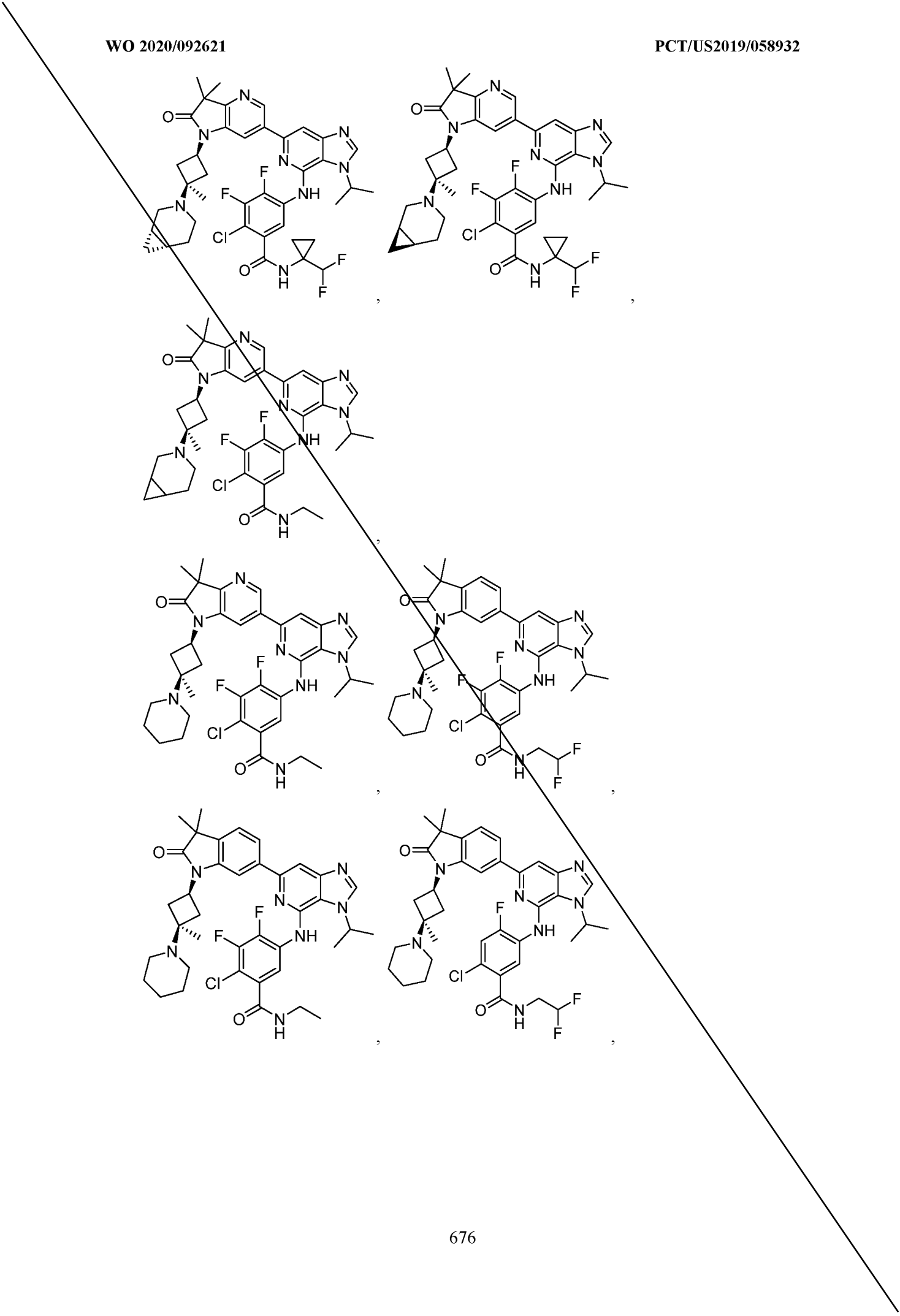
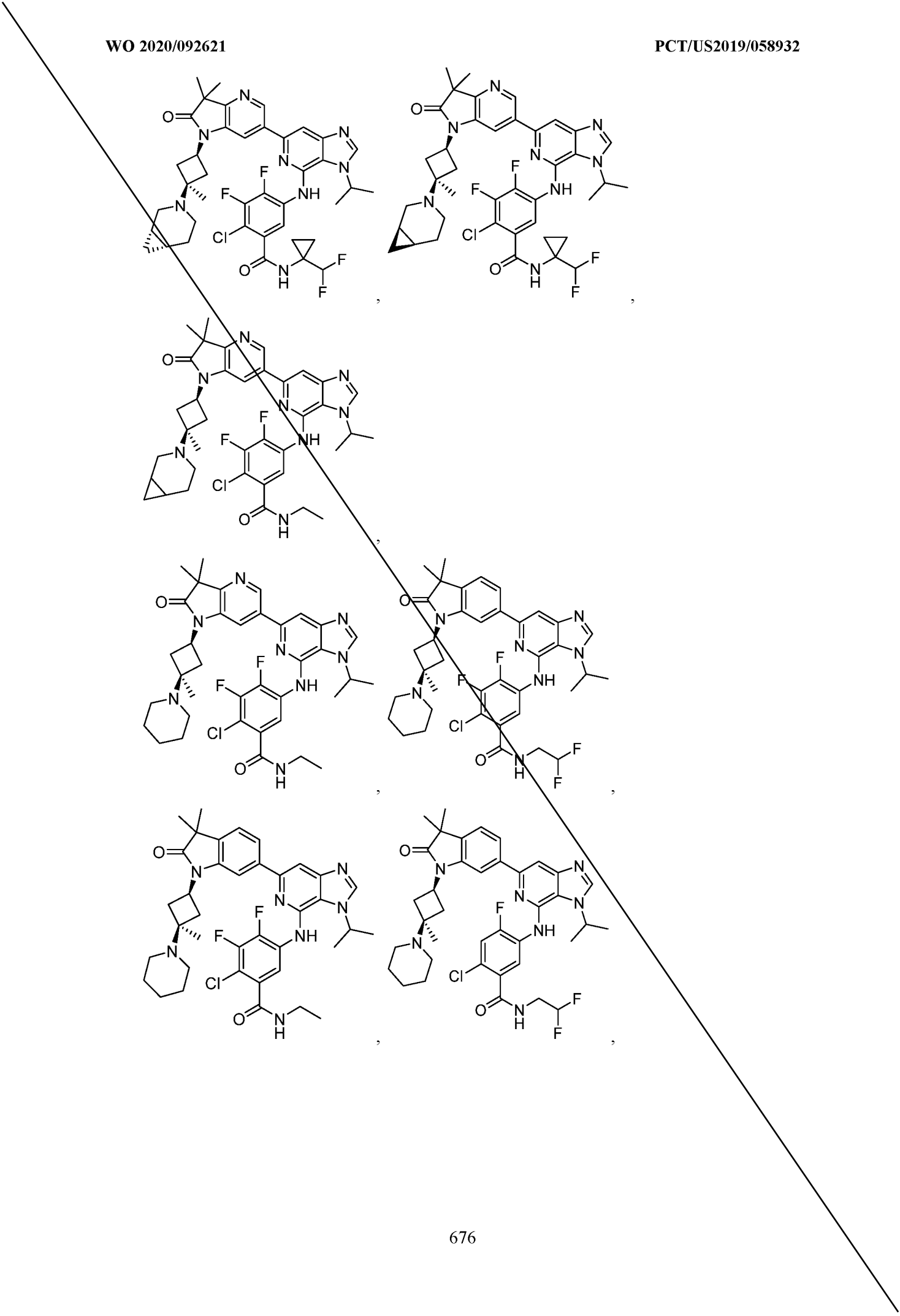
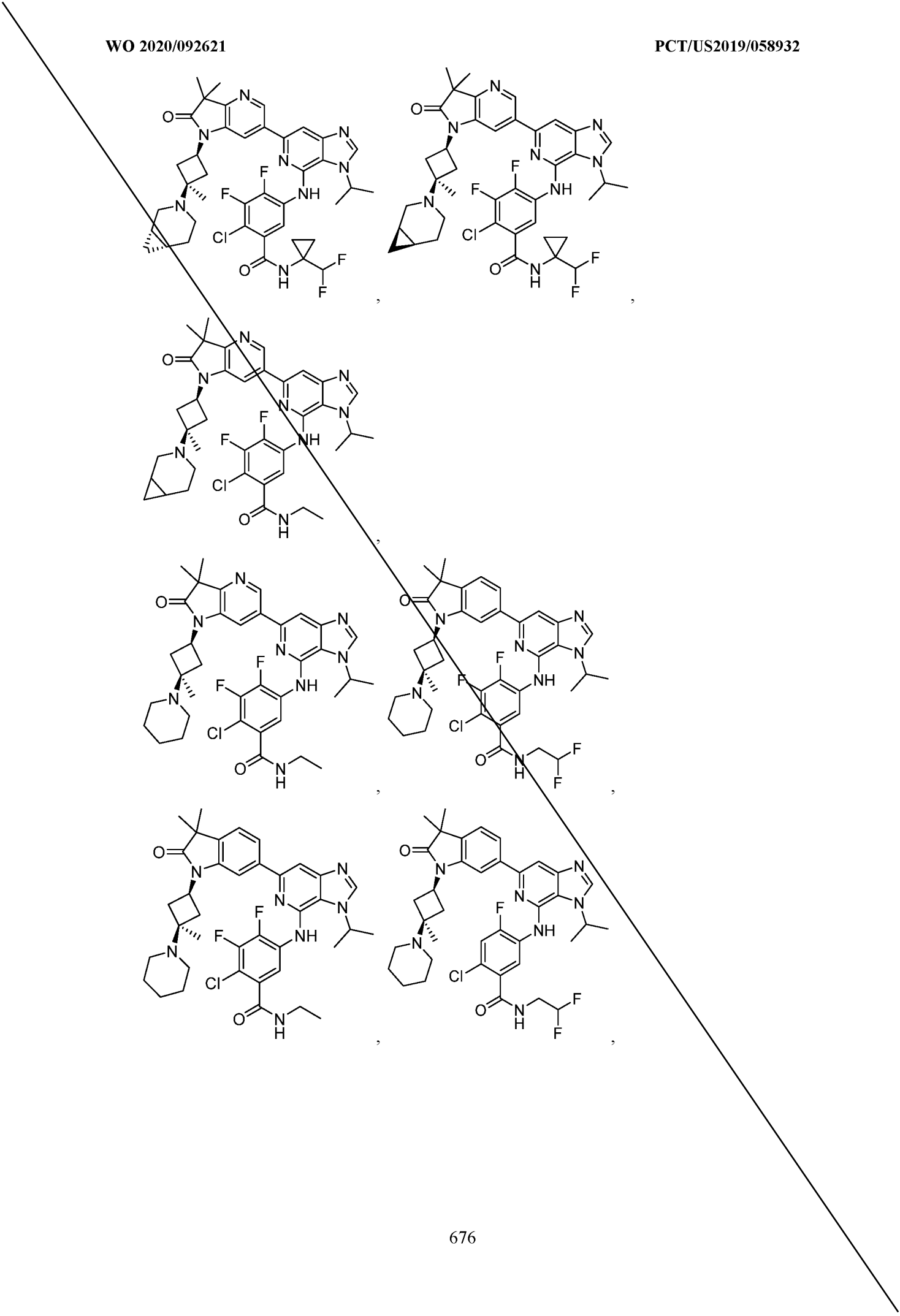
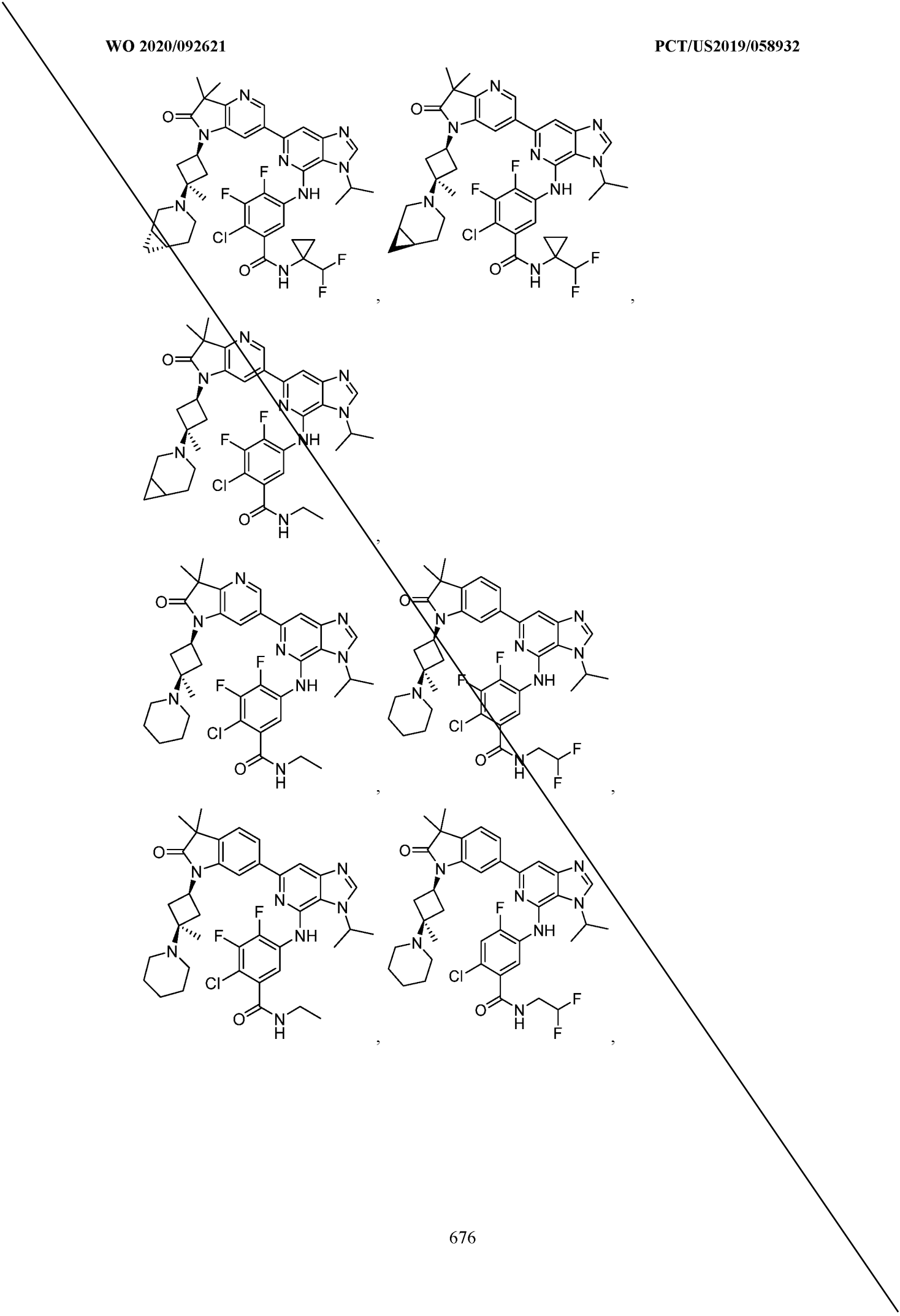
119. A compound selected from the group consisting of:

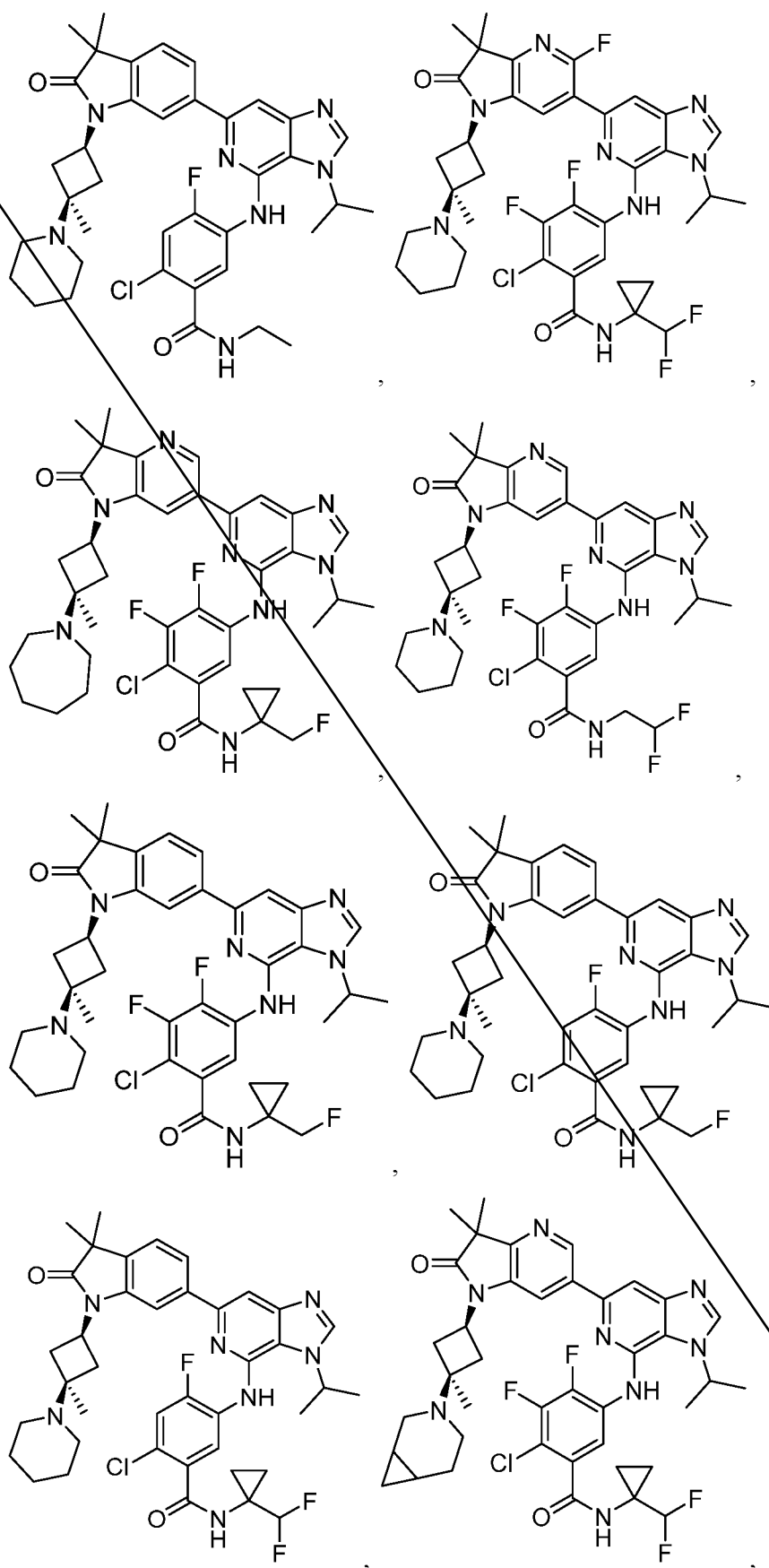


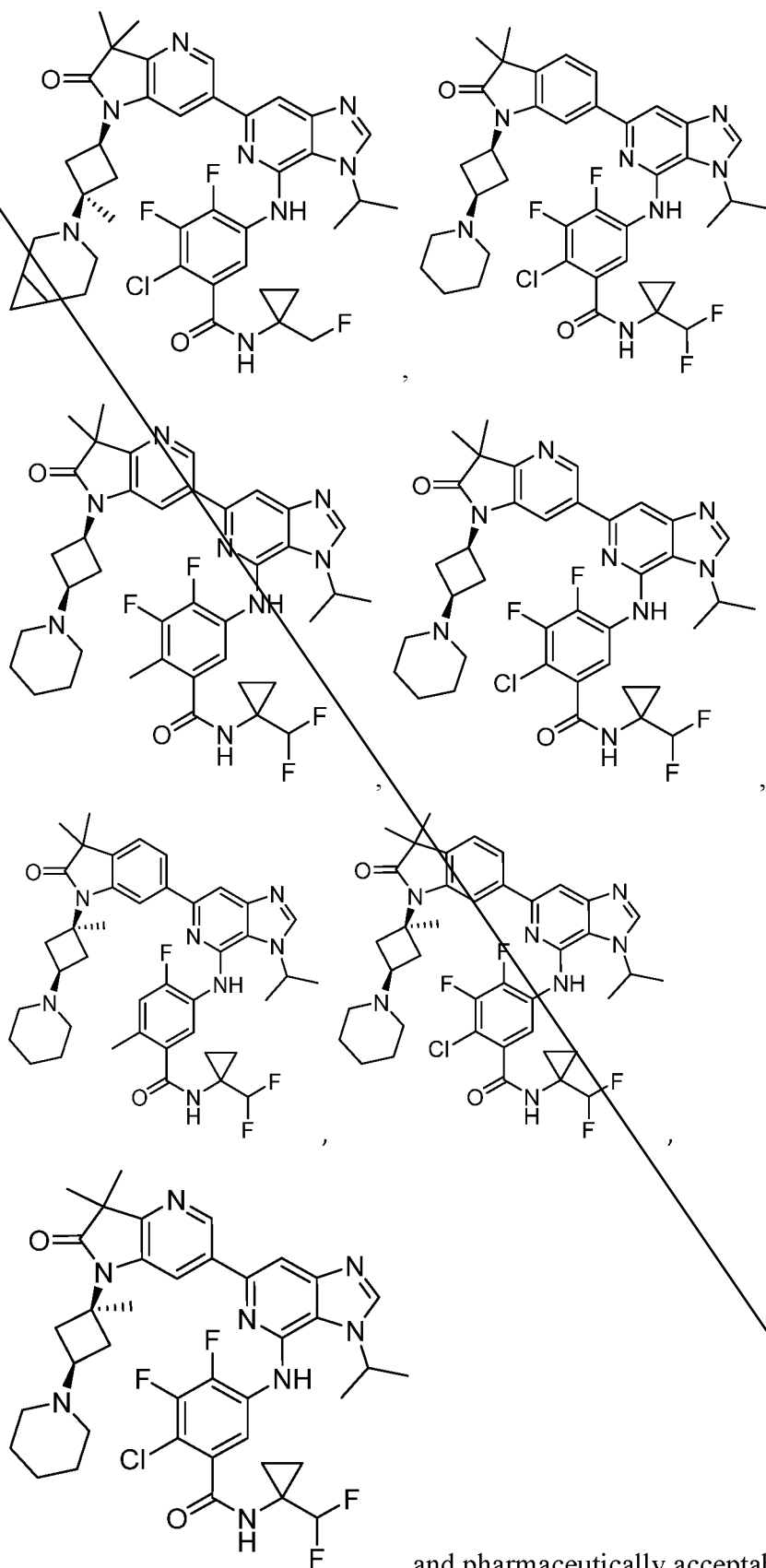




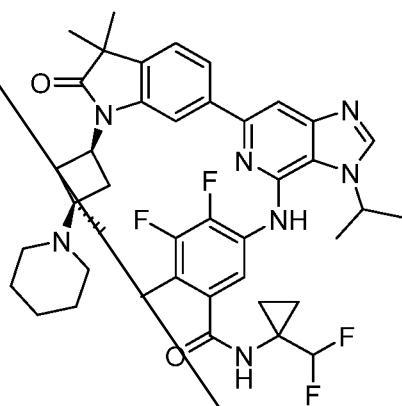






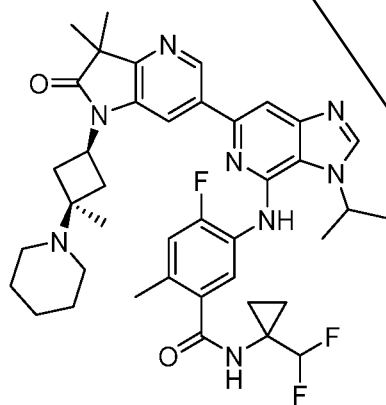


120. A compound of formula:



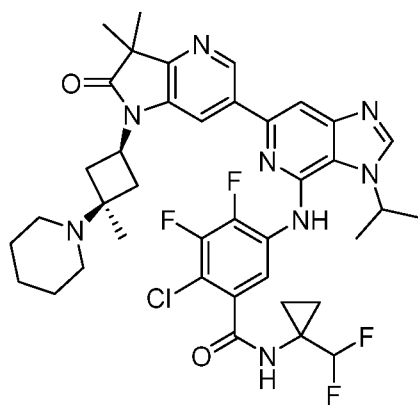
, or a pharmaceutically acceptable salt thereof.

121. A compound of formula:



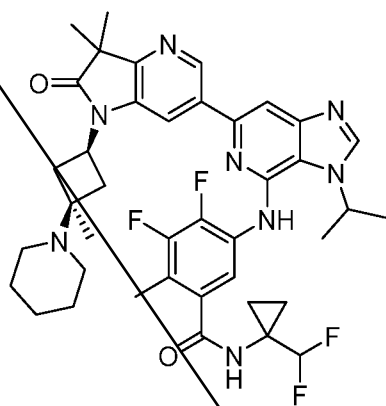
, or a pharmaceutically acceptable salt thereof.

122. A compound of formula:



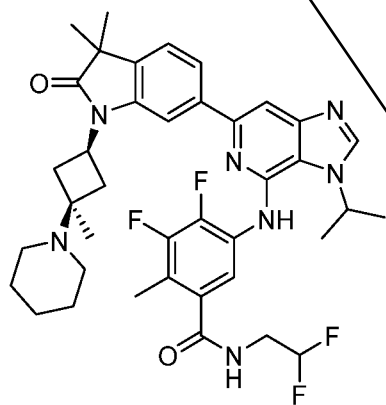
, or a pharmaceutically acceptable salt thereof.

123. A compound of formula:



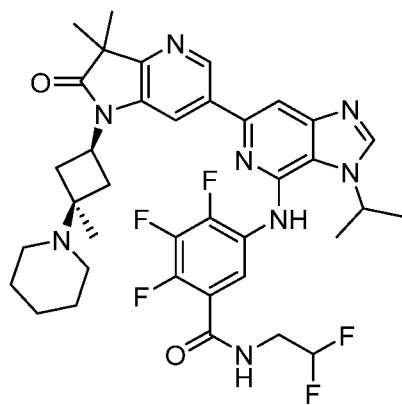
, or a pharmaceutically acceptable salt thereof.

124. A compound of formula:



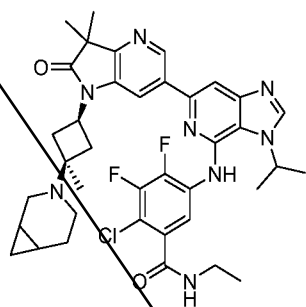
, or a pharmaceutically acceptable salt thereof.

125. A compound of formula:



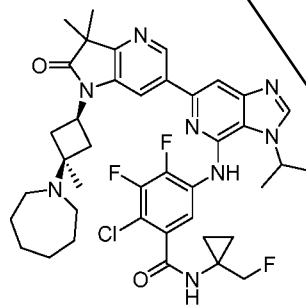
, or a pharmaceutically acceptable salt thereof.

126. A compound of formula:



, or a pharmaceutically acceptable salt thereof.

127. A compound of formula:



, or a pharmaceutically acceptable salt thereof.

128. A pharmaceutical composition comprising the compound of any one of claims 1-123, or a pharmaceutically acceptable salt thereof, and a pharmaceutically acceptable excipient or carrier.

129. The pharmaceutical composition of claim 128, further comprising one or more additional therapeutic agents, or a pharmaceutically acceptable salt thereof.

130. The pharmaceutical composition of claim 129, wherein the one or more additional therapeutic agents is selected from the group consisting of: adefovir (Hepsera®), tenofovir disoproxil fumarate + emtricitabine (Truvada®), tenofovir disoproxil fumarate (Viread®), entecavir (Baraclude®), lamivudine (Epivir-HBV®), tenofovir alafenamide, tenofovir, tenofovir disoproxil, tenofovir alafenamide fumarate, tenofovir alafenamide hemifumarate, telbivudine (Tyzeka®), Clevudine®, emtricitabine (Emtriva®), peginterferon alfa-2b (PEG-Intron®), Multiferon®, interferon alpha 1b (Hapgen®), interferon alpha-2b (Intron A®), pegylated interferon alpha-2a (Pegasys®), interferon alfa-n1 (Humoferon®), ribavirin, interferon beta-1a (Avonex®), Bioferon, Ingaron, Inmutag (Inferon), Algeron, Roferon-A, Oligotide, Zutectra, Shaferon, interferon alfa-2b (Axxo), Alfaferone, interferon alfa-2b, Feron, interferon-alpha 2 (CJ), Bevac, Laferonum, Vipeg, Blauferon-B, Blauferon-A, Intermax Alpha, Realdiron, Lanstion, Pegaferon, PDferon-B, alfainterferona 2b, Kalferon, Pegnano, Feronure, PegiHep, Optipeg A, Realfa 2B, Reliferon, peginterferon alfa-2b, Reaferon-EC, Proquiferon, Uniferon,

Urifron, interferon alfa-2b, Anterferon, Shanferon, MOR-22, interleukin-2 (IL-2), recombinant human interleukin-2 (Shenzhen Neptunus), Layfferon, Ka Shu Ning, Shang Sheng Lei Tai, Intefen, Sinogen, Fukangtai, Alloferon and celmoleukin, or a pharmaceutically acceptable salt of any of the foregoing, or any combinations thereof.

131. The pharmaceutical composition of claim 129, wherein the one or more additional therapeutic agents is selected from the group consisting of: 4'-ethynyl-2-fluoro-2'-deoxyadenosine, bictegavir, abacavir sulfate, tenofovir, tenofovir disoproxil, tenofovir disoproxil fumarate, tenofovir disoproxil hemifumarate, tenofovir alafenamide, tenofovir alafenamide hemifumarate, emtricitabine, and lamivudine, or a pharmaceutically acceptable salt of any of the foregoing, or any combinations thereof.

132. The pharmaceutical composition of claim 129, wherein the one or more additional therapeutic agents is selected from the group consisting of: nivolumab, lambrolizumab, pembrolizumab, pidilizumab, PDR001, TSR-001, atezolizumab, durvalumab, or avelumab, or a pharmaceutically acceptable salt of any of the foregoing, or any combinations thereof.

133. The pharmaceutical composition of claim 129, wherein the one or more additional therapeutic agents is selected from the group consisting of: rituxan, doxorubicin, gemcitabine, pidilizumab, TSR-042, BMS-986016, ruxolitinib, N-(cyanomethyl)-4-[2-(4-morpholinoanilino)pyrimidin-4-yl]benzamide, XL147, BKM120, GDC-0941, BAY80-6946, PX-866, CH5132799, XL756, BEZ235, and GDC-0980, wortmannin, LY294002, TGR-1202, AMG-319, GSK2269557, X-339, X-414, RP5090, KAR4141, XL499, OXY111A, IPI-145, IPI-443, GSK2636771, BAY 10824391, buparlisib, BYL719, RG7604, MLN1117, WX-037, AEZS-129, PA799, ZSTK474, AS252424, TGX221, TG100115, IC87114, IPI-549, INCB050465, (S)-2-(1-((9H-purin-6-yl)amino)propyl)-5-fluoro-3-phenylquinazolin-4(3H)-one, (S)-2-(1-((9H-purin-6-yl)amino)ethyl)-6-fluoro-3-phenylquinazolin-4(3H)-one, (S)-2-(1-((9H-purin-6-yl)amino)ethyl)-3-(2,6-difluorophenyl)quinazolin-4(3H)-one, (S)-4-amino-6-((1-(5-chloro-4-oxo-3-phenyl-3,4-dihydroquinazolin-2-yl)ethyl)amino)pyrimidine-5-carbonitrile, and ipilimumab, or a pharmaceutically acceptable salt of any of the foregoing, or any combinations thereof.

134. The pharmaceutical composition of claim 129, wherein the one or more additional therapeutic agents is selected from the group consisting of idelalisib, tirabrutinib, momelotinib, and entospletinib, or a pharmaceutically acceptable salt of any of the foregoing, or any combinations thereof.

135. A method of inhibiting hematopoietic progenitor kinase 1 (HPK1) activity in a subject in need thereof, comprising administering to the subject a therapeutically effective amount of the compound of any one of claims 1-123, or a pharmaceutically acceptable salt thereof, or the pharmaceutical composition of any one of claims 128-129.

136. A method of treating a disease or disorder associated with increased hematopoietic progenitor kinase 1 (HPK1) activity in a subject in need thereof, comprising administering to the subject a therapeutically effective amount of the compound of any one of claims 1-123, or a pharmaceutically acceptable salt thereof, or the pharmaceutical composition of any one of claims 128-129.

137. A method of increasing T-cell activation in a subject in need thereof, comprising administering to the subject a therapeutically effective amount of the compound of any one of claims 1-123, or a pharmaceutically acceptable salt thereof, or the pharmaceutical composition of any one of claims 128-129.

138. A method of treating cancer in a subject in need thereof, comprising administering to the subject a therapeutically effective amount of the compound of any one of claims 1-123, or a pharmaceutically acceptable salt thereof, or the pharmaceutical composition of any one of claims 128-129.

139. The method of claim 138, wherein the cancer is selected from the group consisting of bladder cancer, breast cancer, colorectal cancer, gastric cancer, head and neck squamous cell carcinoma, Hodgkin lymphoma, Merkel-cell carcinoma, mesothelioma, melanoma, non-small cell lung cancer, lung cancer, ovarian cancer, pancreatic cancer, prostate cancer, renal cell carcinoma, small cell lung cancer, transitional cell carcinoma, and urothelial cancer.

140. A method of inhibiting the growth or proliferation of cancer cells in a subject in need thereof, comprising administering to the subject a therapeutically effective amount of the compound of any one of claims 1-123, or a pharmaceutically acceptable salt thereof, or the pharmaceutical composition of any one of claims 128-129.

141. The method of any one of claims 135-140, further comprising administering a therapeutically effective amount of one or more additional therapeutic agents, or a pharmaceutically acceptable salt thereof.

142. The method of claim 141, wherein the one or more additional therapeutic agents is

selected from the group consisting of: Inducible T-cell costimulator (ICOS) agonists, cytotoxic T-lymphocyte antigen 4 (CTLA-4)-blocking antibodies, PD1 and/or PD-L1 inhibitors, Cluster of Differentiation 47 (CD47) inhibitors, OX40 agonists, GITR agonists, CD27 agonists, CD28 agonists, CD40 agonists, CD137 agonists, Toll-like receptor 8 (TLR8) agonists, T cell immunoglobulin and mucin domain-3 (TIM-3) inhibitors, lymphocyte activation gene 3 (LAG-3) inhibitors, CEACAM1 inhibitors, T cell immunoreceptor with Ig and ITIM domains (TIGIT) inhibitors, V-domain immunoglobulin (Ig)-containing suppressor of T-cell activation (VISTA) inhibitors, anti-Killer IgG-like receptors (KIR) inhibitors, STING agonists, C-X-C chemokine receptor type 4 (CXCR-4) inhibitors, B7-H3 inhibitors, CD73 inhibitors, inhibitory RNA, IL2/15/17 fusion proteins, MKNK1/2 inhibitors, JAK inhibitors, and PI3K inhibitors, or a pharmaceutically acceptable salt of any of the foregoing, or any combinations thereof.

143. The method of claim 141, wherein the one or more additional therapeutic agents is selected from the group consisting of: rituxan, doxorubicin, gemcitabine, nivolumab, pembrolizumab, pidilizumab, PDR001, TSR-001, atezolizumab, durvalumab, avelumab, pidilizumab, TSR-042, BMS-986016, ruxolitinib, N-(cyanomethyl)-4-[2-(4-morpholinoanilino)pyrimidin-4-yl]benzamide, XL147, BKM120, GDC-0941, BAY80-6946, PX-866, CH5132799, XL756, BEZ235, and GDC-0980, wortmannin, LY294002, TGR-1202, AMG-319, GSK2269557, X-339, X-414, RP5090, KAR4141, XL499, OXY111A, IPI-145, IPI-443, GSK2636771, BAY 10824391, buparlisib, BYL719, RG7604, MLN1117, WX-037, AEZS-129, PA799, ZSTK474, AS252424, TGX221, TG100115, IC87114, IPI-549, INCB050465, (S)-2-(1-((9H-purin-6-yl)amino)propyl)-5-fluoro-3-phenylquinazolin-4(3H)-one, (S)-2-(1-((9H-purin-6-yl)amino)ethyl)-6-fluoro-3-phenylquinazolin-4(3H)-one, (S)-2-(1-((9H-purin-6-yl)amino)ethyl)-3-(2,6-difluorophenyl)quinazolin-4(3H)-one, (S)-4-amino-6-((1-(5-chloro-4-oxo-3-phenyl-3,4-dihydroquinazolin-2-yl)ethyl)amino)pyrimidine-5-carbonitrile, and ipilimumab, or a pharmaceutically acceptable salt of any of the foregoing, or any combinations thereof.

144. The method of claim 141, wherein the one or more additional therapeutic agents is selected from the group consisting of idelalisib, tirabrutinib, momelotinib, and entospletinib, or a pharmaceutically acceptable salt of any of the foregoing, or any combinations thereof.

145. A method of treating or preventing a hepatitis B virus (HBV) infection in a subject in need thereof, comprising administering to the subject a therapeutically effective amount of the compound of any one of claims 1-123, or a pharmaceutically acceptable salt thereof, or the

pharmaceutical composition of any one of claims 128-129.

146. The method of claim 145, further comprising administering a therapeutically effective amount of one or more additional therapeutic agents, or a pharmaceutically acceptable thereof.

147. The method of claim 146, wherein the one or more additional therapeutic agents is selected from the group consisting of HBV combination drugs, HBV vaccines, HBV DNA polymerase inhibitors, immunomodulators, toll-like receptor (TLR) modulators, interferon alpha receptor ligands, hyaluronidase inhibitors, hepatitis b surface antigen (HBsAg) inhibitors, cytotoxic T-lymphocyte-associated protein 4 (ipi4) inhibitors, cyclophilin inhibitors, HBV viral entry inhibitors, antisense oligonucleotide targeting viral mRNA, short interfering RNAs (siRNA) and ddRNAi endonuclease modulators, ribonucleotide reductase inhibitors, HBV E antigen inhibitors, covalently closed circular DNA (cccDNA) inhibitors, farnesoid X receptor agonists, HBV antibodies, CCR2 chemokine antagonists, thymosin agonists, cytokines, nucleoprotein modulators, retinoic acid-inducible gene 1 stimulators, NOD2 stimulators, phosphatidylinositol 3-kinase (PI3K) inhibitors, indoleamine-2, 3-dioxygenase (IDO) pathway inhibitors, PD-1 inhibitors, PD-L1 inhibitors, recombinant thymosin alpha-1 agonists, Bruton's tyrosine kinase (BTK) inhibitors, KDM inhibitors, HBV replication inhibitors, arginase inhibitors, and other HBV drugs, or a pharmaceutically acceptable salt of any of the foregoing, or any combinations thereof.

148. The method of any one of claims 146-147, wherein the one or more additional therapeutic agents is selected from the group consisting of adefovir (Hepsera®), tenofovir disoproxil fumarate + emtricitabine (Truvada®), tenofovir disoproxil fumarate (Viread®), entecavir (Baraclude®), lamivudine (Epivir-HBV®), tenofovir alafenamide, tenofovir, tenofovir disoproxil, tenofovir alafenamide fumarate, tenofovir alafenamide hemifumarate, telbivudine (Tyzeka®), Clevudine®, emtricitabine (Emtriva®), peginterferon alfa-2b (PEG-Intron®), Multiferon®, interferon alpha 1b (Hapgen®), interferon alpha-2b (Intron A®), pegylated interferon alpha-2a (Pegasys®), interferon alfa-n1 (Humoferon®), ribavirin, interferon beta-1a (Avonex®), Bioferon, Ingaron, Inmutag (Inferon), Algeron, Roferon-A, Oligotide, Zutectra, Shaferon, interferon alfa-2b (Axxo), Alfaferone, interferon alfa-2b, Feron, interferon-alpha 2 (CJ), Bevac, Laferonum, Vipeg, Blaufferon-B, Blaufferon-A, Intermax Alpha, Realdiron, Lanstion, Pegaferon, PDferon-B, alfainterferona 2b, Kalferon, Pegnano, Feronsure, PegiHep, Optipeg A, Realfa 2B, Reliferon, peginterferon alfa-2b, Reaferon-EC, Proquiferon, Uniferon, Urifron, interferon alfa-2b, Anterferon, Shanferon, MOR-22, interleukin-2 (IL-2), recombinant

human interleukin-2 (Shenzhen Neptunus), Layfferon, Ka Shu Ning, Shang Sheng Lei Tai, Intefen, Sinogen, Fukangtai, Alloferon and celmoleukin, or a pharmaceutically acceptable salt of any of the foregoing, or any combinations thereof.

149. The method of any one of claims 146-148, wherein the one or more additional therapeutic agents is selected from the group consisting of entecavir, adefovir, tenofovir disoproxil fumarate, tenofovir alafenamide, tenofovir, tenofovir disoproxil, tenofovir alafenamide fumarate, tenofovir alafenamide hemifumarate, telbivudine and lamivudine, or a pharmaceutically acceptable salt of any of the foregoing, or any combinations thereof.

150. The method of any one of claims 146-149, wherein the one or more additional therapeutic agents is selected from the group consisting of tenofovir alafenamide, tenofovir alafenamide fumarate, and tenofovir alafenamide hemifumarate, or a pharmaceutically acceptable salt of any of the foregoing, or any combinations thereof.

151. A method of treating or preventing a human immunodeficiency virus (HIV) infection in a subject in need thereof, comprising administering to the subject a therapeutically effective amount of the compound of any one of claims 1-123, or a pharmaceutically acceptable salt thereof, or the pharmaceutical composition of any one of claims 128-129.

152. The method of claim 151, further comprising administering a therapeutically effective amount of one or more additional therapeutic agents, or a pharmaceutically acceptable salt thereof.

153. The method of claim 152, wherein the one or more additional therapeutic agents is selected from the group consisting of: combination drugs for HIV, other drugs for treating HIV, HIV protease inhibitors, HIV non-nucleoside or non-nucleotide inhibitors of reverse transcriptase, HIV nucleoside or nucleotide inhibitors of reverse transcriptase, HIV integrase inhibitors, HIV non-catalytic site (or allosteric) integrase inhibitors, HIV entry inhibitors, HIV maturation inhibitors, latency reversing agents, compounds that target the HIV capsid, immune-based therapies, phosphatidylinositol 3-kinase (PI3K) inhibitors, HIV antibodies, bispecific antibodies and “antibody-like” therapeutic proteins, HIV p17 matrix protein inhibitors, IL-13 antagonists, peptidyl-prolyl cis-trans isomerase A modulators, protein disulfide isomerase inhibitors, complement C5a receptor antagonists, DNA methyltransferase inhibitor, HIV vif gene modulators, Vif dimerization antagonists, HIV-1 viral infectivity factor inhibitors, TAT protein inhibitors, HIV-1 Nef modulators, Hck tyrosine kinase modulators, mixed lineage

kinase-3 (MLK-3) inhibitors, HIV-1 splicing inhibitors, Rev protein inhibitors, integrin antagonists, nucleoprotein inhibitors, splicing factor modulators, COMM domain containing protein 1 modulators, HIV ribonuclease H inhibitors, retrocyclin modulators, CDK-9 inhibitors, dendritic ICAM-3 grabbing nonintegrin 1 inhibitors, HIV GAG protein inhibitors, HIV POL protein inhibitors, Complement Factor H modulators, ubiquitin ligase inhibitors, deoxycytidine kinase inhibitors, cyclin dependent kinase inhibitors, proprotein convertase PC9 stimulators, ATP dependent RNA helicase DDX3X inhibitors, reverse transcriptase priming complex inhibitors, G6PD and NADH-oxidase inhibitors, pharmacokinetic enhancers, HIV gene therapy, and HIV vaccines, or a pharmaceutically acceptable salt of any of the foregoing, or any combinations thereof.

154. The method of any one of claims 152-153, wherein the one or more additional therapeutic agents is selected from the group consisting of HIV protease inhibiting compounds, HIV non-nucleoside inhibitors of reverse transcriptase, HIV non-nucleotide inhibitors of reverse transcriptase, HIV nucleoside inhibitors of reverse transcriptase, HIV nucleotide inhibitors of reverse transcriptase, HIV integrase inhibitors, gp41 inhibitors, CXCR4 inhibitors, gp120 inhibitors, CCR5 inhibitors, capsid polymerization inhibitors, pharmacokinetic enhancers, and other drugs for treating HIV, or a pharmaceutically acceptable salt of any of the foregoing, or any combinations thereof.

155. The method of any one of claims 152-154, wherein the one or more additional therapeutic agents is selected from the group consisting of 4'-ethynyl-2-fluoro-2'-deoxyadenosine, bicitgravir, abacavir sulfate, tenofovir, tenofovir disoproxil, tenofovir disoproxil fumarate, tenofovir disoproxil hemifumarate, tenofovir alafenamide, and tenofovir alafenamide hemifumarate, or a pharmaceutically acceptable salt of any of the foregoing, or any combinations thereof.

156. The method of any one of claims 152-155, wherein the one or more additional therapeutic agents is selected from the group consisting of 4'-ethynyl-2-fluoro-2'-deoxyadenosine, bicitgravir, tenofovir alafenamide, tenofovir alafenamide fumarate or tenofovir alafenamide hemifumarate, or a pharmaceutically acceptable salt of any of the foregoing, or any combinations thereof.

157. The method of any one of claims 152-156, wherein the one or more additional therapeutic agents is selected from the group consisting of 4'-ethynyl-2-fluoro-2'-deoxyadenosine, bicitgravir or a pharmaceutically acceptable salt thereof, tenofovir disoproxil,

tenofovir disoproxil hemifumarate or tenofovir disoproxil fumarate, or a pharmaceutically acceptable salt of any of the foregoing, or any combinations thereof.

158. The method of any one of claims 152-157, further comprising administering a therapeutically effective amount of an additional therapeutic agent selected from the group consisting of emtricitabine and lamivudine, or a pharmaceutically acceptable salt of each thereof.

159. The method of any one of claims 152-157, further comprising administering a therapeutically effective amount of emtricitabine or a pharmaceutically acceptable salt thereof.

160. A compound of any one of claims 1-123, or a pharmaceutically acceptable salt thereof, for use in therapy.

161. A compound of any one of claims 1-123, or a pharmaceutically acceptable salt thereof, for use in a method of inhibiting hematopoietic progenitor kinase 1 (HPK1) activity in a subject in need thereof.

162. A compound of any one of claims 1-123, or a pharmaceutically acceptable salt thereof, for use in a method of treating a disease or disorder associated with increased hematopoietic progenitor kinase 1 (HPK1) activity in a subject in need thereof.

163. A compound of any one of claims 1-123, or a pharmaceutically acceptable salt thereof, for use in a method of increasing T-cell activation in a subject in need thereof.

164. A compound of any one of claims 1-123, or a pharmaceutically acceptable salt thereof, for use in a method of treating cancer in a subject in need thereof.

165. The use of claim 164, wherein the cancer is selected from the group consisting of bladder cancer, breast cancer, colorectal cancer, gastric cancer, head and neck squamous cell carcinoma, Hodgkin lymphoma, Merkel-cell carcinoma, mesothelioma, melanoma, non-small cell lung cancer, lung cancer, ovarian cancer, pancreatic cancer, prostate cancer, renal cell carcinoma, small cell lung cancer, transitional cell carcinoma, and urothelial cancer

166. A compound of any one of claims 1-123, or a pharmaceutically acceptable salt thereof, for use in a method of inhibiting the growth or proliferation of cancer cells in a subject in need thereof.

167. The use of any one of claims 161-166, further comprising administering a therapeutically effective amount of one or more additional therapeutic agents, or a pharmaceutically acceptable salt thereof.

168. The use of claim 167, wherein the one or more additional therapeutic agents is selected from the group consisting of: Inducible T-cell costimulator (ICOS) agonists, cytotoxic T-lymphocyte antigen 4 (CTLA-4)-blocking antibodies, PD1 and/or PD-L1 inhibitors, Cluster of Differentiation 47 (CD47) inhibitors, OX40 agonists, GITR agonists, CD27 agonists, CD28 agonists, CD40 agonists, CD137 agonists, Toll-like receptor 8 (TLR8) agonists, T cell immunoglobulin and mucin domain-3 (TIM-3) inhibitors, lymphocyte activation gene 3 (LAG-3) inhibitors, CEACAM1 inhibitors, T cell immunoreceptor with Ig and ITIM domains (TIGIT) inhibitors, V-domain immunoglobulin (Ig)-containing suppressor of T-cell activation (VISTA) inhibitors, anti-Killer IgG-like receptors (KIR) inhibitors, STING agonists, C-X-C chemokine receptor type 4 (CXCR-4) inhibitors, B7-H3 inhibitors, CD73 inhibitors, inhibitory RNA, IL2/15/17 fusion proteins, MKNK1/2 inhibitors, JAK inhibitors, and PI3K inhibitors, or a pharmaceutically acceptable salt of any of the foregoing, or any combinations thereof.

169. The use of claim 167, wherein the one or more additional therapeutic agents is selected from the group consisting of: rituxan, doxorubicin, gemcitabine, nivolumab, pembrolizumab, pidilizumab, PDR001, TSR-001, atezolizumab, durvalumab, avelumab, pidilizumab, TSR-042, BMS-986016, ruxolitinib, N-(cyanomethyl)-4-[2-(4-morpholinoanilino)pyrimidin-4-yl]benzamide, XL147, BKM120, GDC-0941, BAY80-6946, PX-866, CH5132799, XL756, BEZ235, and GDC-0980, wortmannin, LY294002, TGR-1202, AMG-319, GSK2269557, X-339, X-414, RP5090, KAR4141, XL499, OXY111A, IPI-145, IPI-443, GSK2636771, BAY 10824391, buparlisib, BYL719, RG7604, MLN1117, WX-037, AEZS-129, PA799, ZSTK474, AS252424, TGX221, TG100115, IC87114, IPI-549, INCB050465, (S)-2-(1-((9H-purin-6-yl)amino)propyl)-5-fluoro-3-phenylquinazolin-4(3H)-one, (S)-2-(1-((9H-purin-6-yl)amino)ethyl)-6-fluoro-3-phenylquinazolin-4(3H)-one, (S)-2-(1-((9H-purin-6-yl)amino)ethyl)-3-(2,6-difluorophenyl)quinazolin-4(3H)-one, (S)-4-amino-6-((1-(5-chloro-4-oxo-3-phenyl-3,4-dihydroquinazolin-2-yl)ethyl)amino)pyrimidine-5-carbonitrile, and ipilimumab, or a pharmaceutically acceptable salt of any of the foregoing, or any combinations thereof.

170. The use of claim 167, wherein the one or more additional therapeutic agents is selected from the group consisting of idelalisib, tirabrutinib, momelotinib, and entospletinib, or a pharmaceutically acceptable salt of any of the foregoing, or any combinations thereof.

171. A compound of any one of claims 1-123, or a pharmaceutically acceptable salt thereof, for use in a method of treating or preventing a hepatitis B virus (HBV) infection in a subject in need thereof.

172. The use of claim 171, further comprising administering a therapeutically effective amount of one or more additional therapeutic agents, or a pharmaceutically acceptable thereof.

173. The use of claim 172, wherein the one or more additional therapeutic agents is selected from the group consisting of HBV combination drugs, HBV vaccines, HBV DNA polymerase inhibitors, immunomodulators, toll-like receptor (TLR) modulators, interferon alpha receptor ligands, hyaluronidase inhibitors, hepatitis b surface antigen (HBsAg) inhibitors, cytotoxic T-lymphocyte-associated protein 4 (ipi4) inhibitors, cyclophilin inhibitors, HBV viral entry inhibitors, antisense oligonucleotide targeting viral mRNA, short interfering RNAs (siRNA) and ddRNAi endonuclease modulators, ribonucleotide reductase inhibitors, HBV E antigen inhibitors, covalently closed circular DNA (cccDNA) inhibitors, farnesoid X receptor agonists, HBV antibodies, CCR2 chemokine antagonists, thymosin agonists, cytokines, nucleoprotein modulators, retinoic acid-inducible gene 1 stimulators, NOD2 stimulators, phosphatidylinositol 3-kinase (PI3K) inhibitors, indoleamine-2, 3-dioxygenase (IDO) pathway inhibitors, PD-1 inhibitors, PD-L1 inhibitors, recombinant thymosin alpha-1 agonists, Bruton's tyrosine kinase (BTK) inhibitors, KDM inhibitors, HBV replication inhibitors, arginase inhibitors, and other HBV drugs, or a pharmaceutically acceptable salt of any of the foregoing, or any combinations thereof.

174. The use of any one of claims 172-173, wherein the one or more additional therapeutic agents is selected from the group consisting of adefovir (Hepsera®), tenofovir disoproxil fumarate + emtricitabine (Truvada®), tenofovir disoproxil fumarate (Viread®), entecavir (Baraclude®), lamivudine (Epivir-HBV®), tenofovir alafenamide, tenofovir, tenofovir disoproxil, tenofovir alafenamide fumarate, tenofovir alafenamide hemifumarate, telbivudine (Tyzeka®), Clevudine®, emtricitabine (Emtriva®), peginterferon alfa-2b (PEG-Intron®), Multiferon®, interferon alpha 1b (Hapgen®), interferon alpha-2b (Intron A®), pegylated interferon alpha-2a (Pegasys®), interferon alfa-n1 (Humoferon®), ribavirin, interferon beta-1a (Avonex®), Bioferon, Ingaron, Inmutag (Inferon), Algeron, Roferon-A, Oligotide, Zutectra, Shaferon, interferon alfa-2b (Axxo), Alfaferone, interferon alfa-2b, Feron, interferon-alpha 2 (CJ), Bevac, Laferonum, Vipeg, Blaufferon-B, Blaufferon-A, Intermax Alpha, Realdiron, Lanstion, Pegaferon, PDferon-B, alfainterferon 2b, Kalferon, Pegnano, Feronsure, PegiHep,

Optipeg A, Realfa 2B, Reliferon, peginterferon alfa-2b, Reaferon-EC, Proquiferon, Uniferon, Urifron, interferon alfa-2b, Anterferon, Shanferon, MOR-22, interleukin-2 (IL-2), recombinant human interleukin-2 (Shenzhen Neptunus), Layfferon, Ka Shu Ning, Shang Sheng Lei Tai, Intefen, Sinogen, Fukangtai, Alloferon and celmoleukin, or a pharmaceutically acceptable salt of any of the foregoing, or any combinations thereof.

175. The use of any one of claims 172-174, wherein the one or more additional therapeutic agents is selected from the group consisting of entecavir, adefovir, tenofovir disoproxil fumarate, tenofovir alafenamide, tenofovir, tenofovir disoproxil, tenofovir alafenamide fumarate, tenofovir alafenamide hemifumarate, telbivudine and lamivudine, or a pharmaceutically acceptable salt of any of the foregoing, or any combinations thereof.

176. The use of any one of claims 172-175, wherein the one or more additional therapeutic agents is selected from the group consisting of tenofovir alafenamide, tenofovir alafenamide fumarate, and tenofovir alafenamide hemifumarate, or a pharmaceutically acceptable salt of any of the foregoing, or any combinations thereof.

177. A compound of any one of claims 1-123, or a pharmaceutically acceptable salt thereof, for use in a method of treating or preventing a human immunodeficiency virus (HIV) infection in a subject in need thereof.

178. The use of claim 177, further comprising administering a therapeutically effective amount of one or more additional therapeutic agents, or a pharmaceutically acceptable salt thereof.

179. The use of claim 178, wherein the one or more additional therapeutic agents is selected from the group consisting of: combination drugs for HIV, other drugs for treating HIV, HIV protease inhibitors, HIV non-nucleoside or non-nucleotide inhibitors of reverse transcriptase, HIV nucleoside or nucleotide inhibitors of reverse transcriptase, HIV integrase inhibitors, HIV non-catalytic site (or allosteric) integrase inhibitors, HIV entry inhibitors, HIV maturation inhibitors, latency reversing agents, compounds that target the HIV capsid, immune-based therapies, phosphatidylinositol 3-kinase (PI3K) inhibitors, HIV antibodies, bispecific antibodies and "antibody-like" therapeutic proteins, HIV p17 matrix protein inhibitors, IL-13 antagonists, peptidyl-prolyl cis-trans isomerase A modulators, protein disulfide isomerase inhibitors, complement C5a receptor antagonists, DNA methyltransferase inhibitor, HIV vif gene modulators, Vif dimerization antagonists, HIV-1 viral infectivity factor inhibitors, TAT protein

inhibitors, HIV-1 Nef modulators, Hck tyrosine kinase modulators, mixed lineage kinase-3 (MLK-3) inhibitors, HIV-1 splicing inhibitors, Rev protein inhibitors, integrin antagonists, nucleoprotein inhibitors, splicing factor modulators, COMM domain containing protein 1 modulators, HIV ribonuclease H inhibitors, retrocyclin modulators, CDK-9 inhibitors, dendritic ICAM-3 grabbing nonintegrin 1 inhibitors, HIV GAG protein inhibitors, HIV POL protein inhibitors, Complement Factor H modulators, ubiquitin ligase inhibitors, deoxycytidine kinase inhibitors, cyclin dependent kinase inhibitors, proprotein convertase PC9 stimulators, ATP dependent RNA helicase DDX3X inhibitors, reverse transcriptase priming complex inhibitors, G6PD and NADH-oxidase inhibitors, pharmacokinetic enhancers, HIV gene therapy, and HIV vaccines, or a pharmaceutically acceptable salt of any of the foregoing, or any combinations thereof.

180. The use of any one of claims 178-179, wherein the one or more additional therapeutic agents is selected from the group consisting of HIV protease inhibiting compounds, HIV non-nucleoside inhibitors of reverse transcriptase, HIV non-nucleotide inhibitors of reverse transcriptase, HIV nucleoside inhibitors of reverse transcriptase, HIV nucleotide inhibitors of reverse transcriptase, HIV integrase inhibitors, gp41 inhibitors, CXCR4 inhibitors, gp120 inhibitors, CCR5 inhibitors, capsid polymerization inhibitors, pharmacokinetic enhancers, and other drugs for treating HIV, or a pharmaceutically acceptable salt of any of the foregoing, or any combinations thereof.

181. The use of any one of claims 178-180, wherein the one or more additional therapeutic agents is selected from the group consisting of 4'-ethynyl-2-fluoro-2'-deoxyadenosine, bicitgravir, abacavir sulfate, tenofovir, tenofovir disoproxil, tenofovir disoproxil fumarate, tenofovir disoproxil hemifumarate, tenofovir alafenamide, and tenofovir alafenamide hemifumarate, or a pharmaceutically acceptable salt of any of the foregoing, or any combinations thereof.

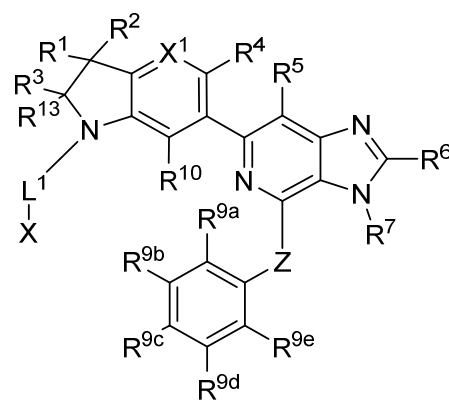
182. The use of any one of claims 178-181, wherein the one or more additional therapeutic agents is selected from the group consisting of 4'-ethynyl-2-fluoro-2'-deoxyadenosine, bicitgravir, tenofovir alafenamide, tenofovir alafenamide fumarate or tenofovir alafenamide hemifumarate, or a pharmaceutically acceptable salt of any of the foregoing, or any combinations thereof.

183. The use of any one of claims 178-182, wherein the one or more additional therapeutic agents is selected from the group consisting of 4'-ethynyl-2-fluoro-2'-deoxyadenosine,

bictegravir or a pharmaceutically acceptable salt thereof, tenofovir disoproxil, tenofovir disoproxil hemifumarate or tenofovir disoproxil fumarate, or a pharmaceutically acceptable salt of any of the foregoing, or any combinations thereof.

WHAT IS CLAIMED IS:

1. A compound of Formula I,



Formula I

or a pharmaceutically acceptable salt thereof,

wherein:

one of R¹ and R² is H, -CN, -OH, halogen, or C₁₋₆ alkyl, and the other of R¹ and R² is H, halogen, or C₁₋₆ alkyl, wherein each C₁₋₆ alkyl is optionally substituted with 1-3 groups independently selected from -OH and halogen, or

R¹ and R² together with the carbon to which they are attached form a C₃₋₇ monocyclic cycloalkyl or a 4-6 membered monocyclic heterocyclyl having 1 or 2 heteroatoms independently selected from N, O, and S, wherein the C₃₋₇ monocyclic cycloalkyl and the 4-6 membered monocyclic heterocyclyl are each optionally substituted with one R¹¹ and are each optionally substituted with 1-3 groups independently selected from -OH, halogen, oxo, C₁₋₃ alkyl, and C₁₋₃ alkoxy, or

R¹ and R² together form =O;

R¹¹ is

- i) 4-6 membered monocyclic heterocyclyl having 1 or 2 heteroatoms independently selected from N, O, and S, wherein the 4-6 membered monocyclic heterocyclyl is optionally substituted with 1-3 groups independently selected from -CN, -OH, halogen, oxo, C₁₋₃ alkyl, and C₁₋₃ alkoxy,
- ii) -S(O)₂C₁₋₆ alkyl,
- iii) -S(O)₂C₃₋₇ monocyclic cycloalkyl,
- iv) C₁₋₆ alkyl optionally substituted with 1-3 groups independently selected from -CN, -OH, halogen, C₁₋₃ alkoxy, and C₃₋₇ monocyclic cycloalkyl, or
- v) -C(O)R²¹;

R²¹ is

- i) H,
- ii) C₃₋₇ monocyclic or bridged bicyclic cycloalkyl optionally substituted with 1-3 groups independently selected from -CN, -OH, halogen, C₁₋₃ alkyl, and C₁₋₃ alkoxy, wherein the C₁₋₃ alkyl is optionally substituted with 1-3 groups independently selected from -OH, halogen, and C₁₋₃ alkoxy,
- iii) 4-6 membered monocyclic heterocyclyl having 1 or 2 heteroatoms independently selected from N, O, and S, wherein the 4-6 membered monocyclic heterocyclyl is optionally substituted with 1-3 groups independently selected from -CN, -OH, halogen, oxo, C₁₋₃ alkyl, and C₁₋₃ alkoxy,
- iv) 5-6 membered monocyclic heteroaryl having 1-4 heteroatoms independently selected from N, O, and S, wherein the 5-6 membered monocyclic heteroaryl is optionally substituted with 1-3 groups independently selected from -CN, -OH, halogen, C₁₋₃ alkyl, and C₁₋₃ alkoxy,
- v) -NH₂,
- vi) -NH(C₁₋₆ alkyl), wherein the C₁₋₆ alkyl is optionally substituted with 1-3 groups independently selected from -CN, -OH, halogen, and C₁₋₃ alkoxy,
- vii) -N(C₁₋₆ alkyl)₂, wherein each C₁₋₆ alkyl can be the same or different and wherein each C₁₋₆ alkyl is optionally substituted with 1-3 groups independently selected from -CN, -OH, halogen, and C₁₋₃ alkoxy,
- viii) C₁₋₆ alkoxy optionally substituted with 1-3 groups independently selected from -OH, halogen, C₁₋₃ alkyl, and C₃₋₇ monocyclic cycloalkyl, or
- ix) C₁₋₆ alkyl optionally substituted with 1-3 groups independently selected from
 - a) -CN,
 - b) -OH,
 - c) halogen,
 - d) C₁₋₃ alkoxy,
 - e) C₃₋₇ monocyclic cycloalkyl optionally substituted with 1-3 groups independently selected from -CN, -OH, halogen, C₁₋₃ alkyl, and C₁₋₃ alkoxy,
 - f) 4-6 membered monocyclic heterocyclyl having 1 or 2 heteroatoms independently selected from N, O, and S, wherein

the 4-6 membered monocyclic heterocyclyl is optionally substituted with 1-3 groups independently selected from -CN, -OH, halogen, oxo, C₁₋₃ alkyl, and C₁₋₃ alkoxy, and
g) -OC(O)C₁₋₆ alkyl optionally substituted with one -OH;

R³ and R¹³ are each H, or

R³ and R¹³ together form =O;

L¹ is a cyclobutylene optionally substituted with 1-6 groups independently selected from -OH, halogen, C₁₋₃ alkyl, and C₁₋₃ alkoxy;

X is -NR¹⁵R¹⁶, wherein R¹⁵ and R¹⁶ are independently

i) H,

ii) C₃₋₇ monocyclic cycloalkyl optionally substituted with 1-3 groups independently selected from -OH, halogen, C₁₋₃ alkyl, and C₁₋₃ alkoxy,

iii) 4-7 membered monocyclic heterocyclyl having 1 or 2 heteroatoms independently selected from N, O, and S, wherein the 4-6 membered monocyclic heterocyclyl is optionally substituted with 1-3 groups independently selected from -OH, halogen, oxo, C₁₋₃ alkyl, and C₁₋₃ alkoxy,

iv) -C(O)C₁₋₆ alkyl, wherein the C₁₋₆ alkyl is optionally substituted with 1-3 groups independently selected from -CN, -OH, halogen, and C₁₋₃ alkoxy, or

v) C₁₋₆ alkyl optionally substituted with 1-6 groups independently selected from

a) -CN,

b) -OH,

c) halogen,

d) C₁₋₃ alkoxy,

e) C₃₋₇ monocyclic cycloalkyl optionally substituted with 1-3 groups independently selected from -OH, halogen, C₁₋₃ alkyl, and C₁₋₃ alkoxy, and

f) 5-6 membered monocyclic heterocyclyl having 1 or 2 heteroatoms independently selected from N, O, and S, wherein the 5-6 membered monocyclic heterocyclyl is optionally substituted with 1-3 groups independently selected from -OH, halogen, oxo, C₁₋₃ alkyl, and C₁₋₃ alkoxy; or

X is a 4-10 membered monocyclic, fused bicyclic, bridged bicyclic, or spirocyclic heterocyclyl having 1-3 heteroatoms independently selected from N, O, and S, wherein the 4-10 membered monocyclic, fused bicyclic, bridged bicyclic, or spirocyclic heterocyclyl is optionally substituted with 1-5 R¹⁸;

each R¹⁸ is independently

- i) -CN,
- ii) a halogen,
- iii) -OH,
- iv) C₁₋₆ alkoxy optionally substituted with 1-3 groups independently selected from -OH, halogen, C₁₋₃ alkoxy, and C₃₋₇ monocyclic cycloalkyl,
- v) C₁₋₆ alkyl optionally substituted with 1-3 groups independently selected from -OH, halogen, C₁₋₃ alkoxy, and C₃₋₇ monocyclic cycloalkyl,
- vi) -COOH, or
- vii) -C(O)N(R²²)₂, wherein each R²² is independently H or C₁₋₆ alkyl;

X¹ is N or CR¹⁷;

R⁴, R⁵, R⁶, R¹⁰ and R¹⁷ are each independently H, halogen, C₁₋₃ alkyl, or C₁₋₃ alkoxy;

R⁷ is

- i) H,
- ii) C₁₋₆ alkyl optionally substituted with 1-3 groups independently selected from -OH, halogen, C₁₋₃ alkoxy, and C₃₋₇ monocyclic cycloalkyl, or
- iii) C₃₋₇ monocyclic cycloalkyl optionally substituted with 1-3 groups independently selected from -OH, halogen, C₁₋₃ alkyl, and C₁₋₃ alkoxy;

Z is -O-, -C(R⁸)₂-, or -NR⁸-;

each R⁸ is independently H or C₁₋₃ alkyl;

R^{9a}, R^{9b}, R^{9c}, R^{9d}, and R^{9e} are independently

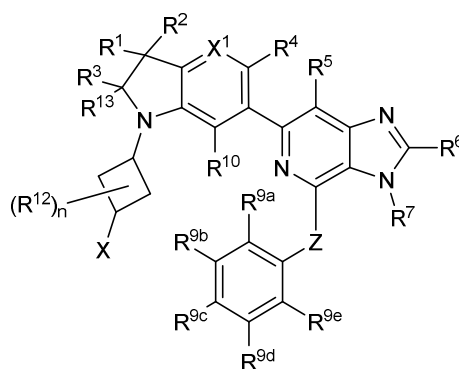
- i) H,
- ii) halogen,
- iii) C₁₋₆ alkoxy optionally substituted with 1-3 groups independently selected from -OH, halogen, C₁₋₃ alkyl, and C₃₋₇ monocyclic cycloalkyl,
- iv) -NH₂,
- v) -NH(C₁₋₆ alkyl), wherein the C₁₋₆ alkyl is optionally substituted with 1-3 groups independently selected from -OH, halogen, and C₁₋₃ alkoxy,
- vi) -N(C₁₋₆ alkyl)₂, wherein each C₁₋₆ alkyl can be the same or different, and wherein each C₁₋₆ alkyl is optionally substituted with 1-3 groups independently selected from -OH, halogen, and C₁₋₃ alkoxy,
- vii) -P(O)(C₁₋₆ alkyl)₂, wherein each C₁₋₆ alkyl can be the same or different, and wherein each C₁₋₆ alkyl is optionally substituted with 1-3 groups independently selected from -OH, halogen, and C₁₋₃ alkoxy,
- viii) -S(O)₂C₁₋₆ alkyl,

- ix) -S(O)₂N(R²³)₂, wherein each R²³ is independently H or C₁₋₆ alkyl,
- x) C₁₋₆ alkyl optionally substituted with 1-3 groups independently selected from
- OH,
 - halogen,
 - C₁₋₃ alkoxy,
 - C₃₋₇ monocyclic cycloalkyl,
 - 5-6 membered monocyclic heterocyclyl having 1 or 2 heteroatoms independently selected from N, O, and S, wherein the 5-6 membered monocyclic heterocyclyl is optionally substituted with 1-3 groups independently selected from oxo and C₁₋₃ alkyl, and
 - NR²⁰C(O)OC₁₋₃ alkyl, wherein R²⁰ is H or C₁₋₃ alkyl,
- xi) C₃₋₇ monocyclic cycloalkyl optionally substituted with 1-3 groups independently selected from -OH, halogen, C₁₋₃ alkyl, and C₁₋₃ alkoxy,
- xii) 5-6 membered monocyclic heteroaryl having 1-4 heteroatoms independently selected from N, O, and S, wherein the 5-6 membered monocyclic heteroaryl is optionally substituted with 1-3 groups independently selected from -OH, halogen, C₁₋₃ alkyl, and C₁₋₃ alkoxy,
- xiii) 4-6 membered monocyclic heterocyclyl having 1-3 heteroatoms independently selected from N, O, and S, wherein the 4-6 membered monocyclic heterocyclyl is optionally substituted with 1-3 groups independently selected from -OH, halogen, oxo, C₁₋₃ alkyl, and C₁₋₃ alkoxy,
- xiv) -COOH,
- xv) -C(O)N(R¹⁹)₂, or
- xvi) -C₁₋₃ alkylC(O)N(R¹⁹)₂,
- wherein one or more of R^{9a}, R^{9b}, R^{9c}, R^{9d}, and R^{9e} is -C(O)N(R¹⁹)₂ or -C₁₋₃ alkylC(O)N(R¹⁹)₂; and
- each R¹⁹ is independently
- H,
 - S(O)₂C₁₋₆ alkyl,
 - C₁₋₆ alkyl optionally substituted with 1-6 groups independently selected from -CN, -OH, halogen, C₁₋₃ alkoxy, and C₃₋₇ monocyclic cycloalkyl,
 - C₃₋₇ monocyclic cycloalkyl optionally substituted with 1-6 groups

independently selected from -CN, -OH, halogen, C₁₋₃ alkyl, and C₁₋₃ alkoxy, wherein the C₁₋₃ alkyl is optionally substituted with 1-3 groups independently selected from -CN, -OH, halogen, and C₁₋₃ alkoxy, or

v) 4-6 membered monocyclic heterocyclyl having 1-3 heteroatoms independently selected from N, O, and S, wherein the 4-6 membered monocyclic heterocyclyl is optionally substituted with 1-6 groups independently selected from -CN, -OH, halogen, oxo, C₁₋₃ alkyl, and C₁₋₃ alkoxy.

2. The compound of claim 1, wherein the compound is of Formula II:



Formula II

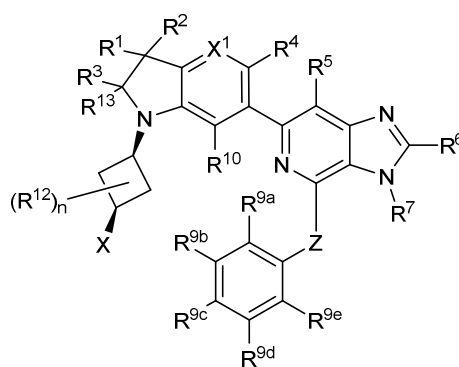
or a pharmaceutically acceptable salt thereof,

wherein

each R¹² is independently -OH, halogen, C₁₋₃ alkyl, or C₁₋₃ alkoxy; and

n is 0, 1, 2, 3, or 4.

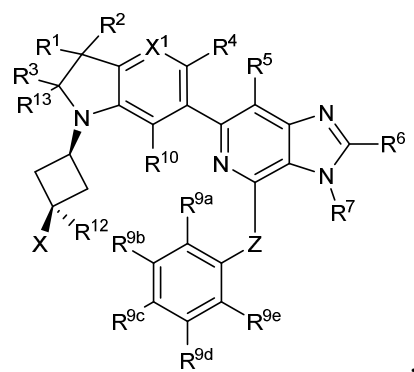
3. The compound of any one of claims 1-2, wherein the compound is of Formula IIa:



Formula IIa

or a pharmaceutically acceptable salt thereof.

4. The compound of any one of claims 1-3, wherein the compound has a Formula IIb:



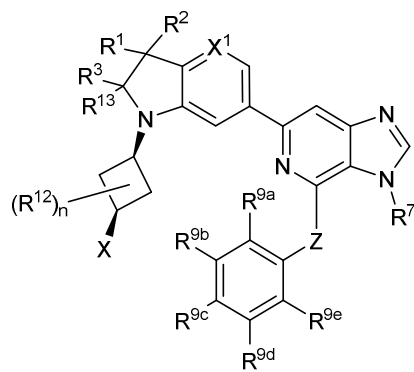
Formula IIb

or the pharmaceutically acceptable salt thereof.

5. The compound of any one of claims 1-4, or a pharmaceutically acceptable salt thereof, wherein R⁴, R⁵, R⁶, and R¹⁰ are H.

6. The compound of any one of claims 1-3 or 5, or a pharmaceutically acceptable salt thereof, wherein n is 0, 1, or 2.

7. The compound of any one of claims 1-6, wherein the compound is of Formula III:



Formula III

or a pharmaceutically acceptable salt thereof,

wherein:

one of R¹ and R² is -OH, halogen, or C₁₋₃ alkyl, and the other of R¹ and R² is halogen or C₁₋₃ alkyl, or
R¹ and R² together with the carbon to which they are attached form a 4-6 membered monocyclic heterocyclyl having 1 or 2 heteroatoms independently selected from N, O, and S, wherein the 4-6 membered monocyclic heterocyclyl is optionally

substituted with one R¹¹ and optionally substituted with 1-3 groups independently selected from -OH, halogen, oxo, C₁₋₃ alkyl, and C₁₋₃ alkoxy;

R¹¹ is

- i) 4-6 membered monocyclic heterocyclyl having 1 or 2 heteroatoms independently selected from N, O, and S, wherein the 4-6 membered monocyclic heterocyclyl is optionally substituted with 1-3 groups independently selected from -CN, -OH, halogen, oxo, C₁₋₃ alkyl, and C₁₋₃ alkoxy,
- ii) -S(O)₂C₁₋₃ alkyl,
- iii) -S(O)₂C₃₋₅ monocyclic cycloalkyl,
- iv) C₁₋₆ alkyl optionally substituted with 1-3 groups independently selected from -CN, -OH, halogen, C₁₋₃ alkoxy, and C₃₋₇ monocyclic cycloalkyl, or
- v) -C(O)R²¹;

R²¹ is

- i) C₃₋₇ monocyclic or bridged bicyclic cycloalkyl optionally substituted with 1-3 groups independently selected from -CN, -OH, halogen, C₁₋₃ alkyl, and C₁₋₃ alkoxy, wherein the C₁₋₃ alkyl is optionally substituted with 1-3 groups independently selected from -OH, halogen, and C₁₋₃ alkoxy,
- ii) 4-6 membered monocyclic heterocyclyl having 1 or 2 heteroatoms independently selected from N, O, and S, wherein the 4-6 membered monocyclic heterocyclyl is optionally substituted with 1-3 groups independently selected from -CN, -OH, halogen, oxo, C₁₋₃ alkyl, and C₁₋₃ alkoxy,
- iii) C₁₋₆ alkoxy optionally substituted with 1-3 groups independently selected from -OH, halogen, C₁₋₃ alkyl, and C₃₋₇ monocyclic cycloalkyl, or
- iv) C₁₋₆ alkyl optionally substituted with 1-3 groups independently selected from
 - a) -CN,
 - b) -OH,
 - c) halogen, and
 - d) C₁₋₃ alkoxy,

R³ and R¹³ are each H, or

R³ and R¹³ together form =O;

n is 0 or 1;

R¹² is C₁₋₃ alkyl;

X is -NR¹⁵R¹⁶, wherein R¹⁵ and R¹⁶ are independently

- i) H,
- ii) C₃₋₇ monocyclic cycloalkyl optionally substituted with 1-3 groups independently selected from -OH, halogen, C₁₋₃ alkyl, and C₁₋₃ alkoxy,
- iii) 4-7 membered monocyclic heterocyclyl having 1 or 2 heteroatoms independently selected from N, O, and S, wherein the 4-7 membered monocyclic heterocyclyl is optionally substituted with 1-3 groups independently selected from -OH, halogen, oxo, C₁₋₃ alkyl, and C₁₋₃ alkoxy,
- iv) -C(O)C₁₋₆ alkyl, wherein the C₁₋₆ alkyl is optionally substituted with 1-3 groups independently selected from -CN, -OH, halogen, and C₁₋₃ alkoxy, or
- v) C₁₋₆ alkyl optionally substituted with 1-6 groups independently selected from
 - a) -OH,
 - b) halogen, and
 - c) C₁₋₃ alkoxy; or

X is a 4-10 membered monocyclic, fused bicyclic, bridged bicyclic, or spirocyclic heterocyclyl having 1-3 heteroatoms independently selected from N, O, and S, wherein the 4-10 membered monocyclic, fused bicyclic, bridged bicyclic, or spirocyclic heterocyclyl is optionally substituted with 1-5 R¹⁸;

each R¹⁸ is independently

- i) a halogen,
- ii) -OH, or
- iii) C₁₋₆ alkyl optionally substituted with 1-3 groups independently selected from -OH, halogen, C₁₋₃ alkoxy, and C₃₋₇ monocyclic cycloalkyl;

X¹ is N or CH;

R⁷ is

- i) C₁₋₆ alkyl optionally substituted with 1-3 groups independently selected from -OH, halogen, C₁₋₃ alkoxy, and C₃₋₇ monocyclic cycloalkyl, or
- ii) C₃₋₇ monocyclic cycloalkyl optionally substituted with 1-3 groups independently selected from -OH, halogen, C₁₋₃ alkyl, and C₁₋₃ alkoxy;

Z is -O- or NH;

R^{9a}, R^{9b}, R^{9c}, R^{9d}, and R^{9e} are independently

- i) H,
- ii) halogen,
- iii) C₁₋₆ alkoxy optionally substituted with 1-3 groups independently selected from -OH, halogen, C₁₋₃ alkyl, and C₃₋₇ monocyclic cycloalkyl,

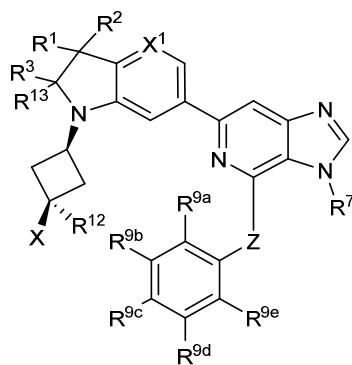
- iv) C₁₋₆ alkyl optionally substituted with 1-3 groups independently selected from -OH, halogen, C₁₋₃ alkoxy, and C₃₋₇ monocyclic cycloalkyl,
- v) C₃₋₇ monocyclic cycloalkyl optionally substituted with 1-3 groups independently selected from -OH, halogen, C₁₋₃ alkyl, and C₁₋₃ alkoxy, or
- vi) -C(O)N(R¹⁹)₂,

wherein one or more of R^{9a}, R^{9b}, R^{9c}, R^{9d}, and R^{9e} is -C(O)N(R¹⁹)₂;

each R¹⁹ is independently

- i) H,
- ii) C₁₋₆ alkyl optionally substituted with 1-6 groups independently selected from -CN, -OH, halogen, C₁₋₃ alkoxy, and C₃₋₇ monocyclic cycloalkyl, or
- iii) C₃₋₇ monocyclic cycloalkyl optionally substituted with 1-6 groups independently selected from -CN, -OH, halogen, C₁₋₃ alkyl, and C₁₋₃ alkoxy, wherein the C₁₋₃ alkyl is optionally substituted with 1-3 groups independently selected from -CN, -OH, halogen, and C₁₋₃ alkoxy.

8. The compound of any one of claims 1-7, wherein the compound is of Formula IIIa:



Formula IIIa

or a pharmaceutically acceptable salt thereof.

9. The compound of any one of claims 1-8, or a pharmaceutically acceptable salt thereof, wherein R³ and R¹³ together form =O.

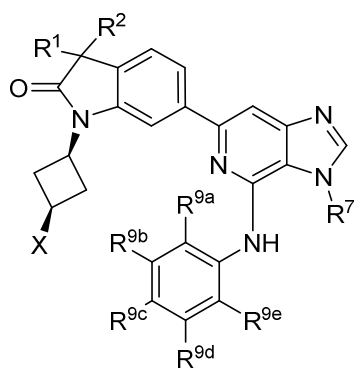
10. The compound of any one of claims 1-9, or a pharmaceutically acceptable salt thereof, wherein X¹ is CH.

11. The compound of any one of claims 1-9, or a pharmaceutically acceptable salt thereof, wherein X¹ is N.

12. The compound of any one of claims 1-11, or a pharmaceutically acceptable salt thereof, wherein R¹² is C₁₋₃ alkyl.

13. The compound of any one of claims 1-12, or a pharmaceutically acceptable salt thereof, wherein Z is NH.

14. The compound of any one of claims 1-3, 5-7, and 9-13, wherein the compound is of Formula IV:



Formula IV

or a pharmaceutically acceptable salt thereof,

wherein:

one of R¹ and R² is -OH, halogen, or C₁₋₃ alkyl, and the other of R¹ and R² is halogen or C₁₋₃ alkyl, or

R¹ and R² together with the carbon to which they are attached form a 4-6 membered monocyclic heterocyclyl having 1 or 2 heteroatoms independently selected from N, O, and S, wherein the 4-6 membered monocyclic heterocyclyl is optionally substituted with one R¹¹ and optionally substituted with 1-3 groups independently selected from -OH, halogen, oxo, C₁₋₃ alkyl, and C₁₋₃ alkoxy;

R¹¹ is

- i) 4-6 membered monocyclic heterocyclyl having 1 or 2 heteroatoms independently selected from N, O, and S, wherein the 4-6 membered monocyclic heterocyclyl is optionally substituted with 1-3 groups independently selected from -CN, -OH, halogen, oxo, C₁₋₃ alkyl, and C₁₋₃ alkoxy,
- ii) -S(O)₂C₁₋₃ alkyl,
- iii) -S(O)₂C₃₋₄ monocyclic cycloalkyl,
- iv) C₁₋₆ alkyl optionally substituted with 1-3 groups independently selected from -CN, -OH, halogen, C₁₋₃ alkoxy, and C₃₋₇ monocyclic cycloalkyl. or
- v) -C(O)R²¹;

R²¹ is

- i) C₃₋₇ monocyclic or bridged bicyclic cycloalkyl optionally substituted with

- 1-3 groups independently selected from -CN, -OH, halogen, C₁₋₃ alkyl, and C₁₋₃ alkoxy, wherein the C₁₋₃ alkyl is optionally substituted with 1-3 groups independently selected from -OH, halogen, and C₁₋₃ alkoxy,
- ii) 4-6 membered monocyclic heterocyclyl having 1 or 2 heteroatoms independently selected from N, O, and S, wherein the 4-6 membered monocyclic heterocyclyl is optionally substituted with 1-3 groups independently selected from -CN, -OH, halogen, oxo, C₁₋₃ alkyl, and C₁₋₃ alkoxy,
- iii) C₁₋₆ alkoxy optionally substituted with 1-3 groups independently selected from -OH, halogen, C₁₋₃ alkyl, and C₃₋₇ monocyclic cycloalkyl, or
- iv) C₁₋₆ alkyl optionally substituted with 1-3 groups independently selected from
- CN,
 - OH,
 - halogen, and
 - C₁₋₃ alkoxy,

X is -NR¹⁵R¹⁶, wherein R¹⁵ and R¹⁶ are independently

- H,
- C₃₋₇ monocyclic cycloalkyl optionally substituted with 1-3 groups independently selected from -OH, halogen, C₁₋₃ alkyl, and C₁₋₃ alkoxy,
- 4-7 membered monocyclic heterocyclyl having 1 or 2 heteroatoms independently selected from N, O, and S, wherein the 4-7 membered monocyclic heterocyclyl is optionally substituted with 1-3 groups independently selected from -OH, halogen, oxo, C₁₋₃ alkyl, and C₁₋₃ alkoxy,
- C(O)C₁₋₆ alkyl, wherein the C₁₋₆ alkyl is optionally substituted with 1-3 groups independently selected from -CN, -OH, halogen, and C₁₋₃ alkoxy, or
- C₁₋₆ alkyl optionally substituted with 1-6 groups independently selected from
 - OH,
 - halogen, and
 - C₁₋₃ alkoxy; or

X is a 4-10 membered monocyclic, fused bicyclic, bridged bicyclic, or spirocyclic heterocyclyl having 1-3 heteroatoms independently selected from N, O, and S, wherein the 4-10 membered monocyclic, fused bicyclic, bridged bicyclic, or spirocyclic heterocyclyl is optionally substituted with 1-5 R¹⁸;
each R¹⁸ is independently

- i) a halogen,
- ii) -OH, or
- iii) C₁₋₆ alkyl optionally substituted with 1-3 groups independently selected from -OH, halogen, C₁₋₃ alkoxy, and C₃₋₇ monocyclic cycloalkyl;

R⁷ is

- i) C₁₋₆ alkyl optionally substituted with 1-3 groups independently selected from -OH, halogen, C₁₋₃ alkoxy, and C₃₋₇ monocyclic cycloalkyl, or
- ii) C₃₋₇ monocyclic cycloalkyl optionally substituted with 1-3 groups independently selected from -OH, halogen, C₁₋₃ alkyl, and C₁₋₃ alkoxy;

R^{9a}, R^{9b}, R^{9c}, R^{9d}, and R^{9e} are independently

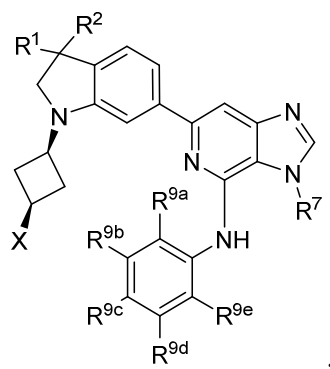
- i) H,
- ii) halogen,
- iii) C₁₋₆ alkoxy optionally substituted with 1-3 groups independently selected from -OH, halogen, C₁₋₃ alkyl, and C₃₋₇ monocyclic cycloalkyl,
- iv) C₁₋₆ alkyl optionally substituted with 1-3 groups independently selected from -OH, halogen, C₁₋₃ alkoxy, and C₃₋₇ monocyclic cycloalkyl,
- v) C₃₋₇ monocyclic cycloalkyl optionally substituted with 1-3 groups independently selected from -OH, halogen, C₁₋₃ alkyl, and C₁₋₃ alkoxy, or
- vi) -C(O)N(R¹⁹)₂,

wherein one or more of R^{9a}, R^{9b}, R^{9c}, R^{9d}, and R^{9e} is -C(O)N(R¹⁹)₂;

each R¹⁹ is independently

- i) H,
- ii) C₁₋₆ alkyl optionally substituted with 1-6 groups independently selected from -CN, -OH, halogen, C₁₋₃ alkoxy, and C₃₋₇ monocyclic cycloalkyl, or
- iii) C₃₋₇ monocyclic cycloalkyl optionally substituted with 1-6 groups independently selected from -CN, -OH, halogen, C₁₋₃ alkyl, and C₁₋₃ alkoxy, wherein the C₁₋₃ alkyl is optionally substituted with 1-3 groups independently selected from -CN, -OH, halogen, and C₁₋₃ alkoxy.

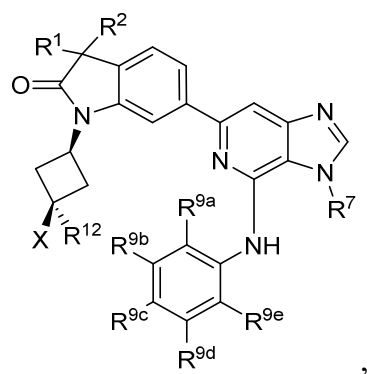
15. The compound of any one of claims 1-3, 5-7, 10, and 14, wherein the compound has a Formula IVa:



Formula IVa

or the pharmaceutically acceptable salt thereof.

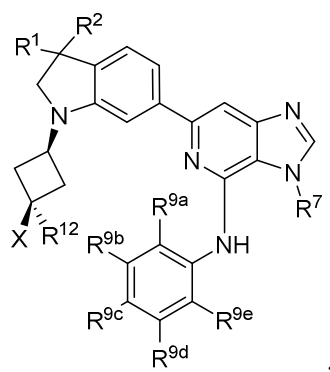
16. The compound of any one of claims 1-13, wherein the compound has a Formula IVb:



Formula IVb

or the pharmaceutically acceptable salt thereof.

17. The compound of any one of claims 1-8, 10, and 12-13, wherein the compound has a Formula IVc:



Formula IVc

or the pharmaceutically acceptable salt thereof.

18. The compound of any one of claims 1-17, or a pharmaceutically acceptable salt thereof, wherein one of R¹ and R² is -OH, fluoro, methyl, or ethyl and the other of one of R¹ and R² is fluoro, methyl, or ethyl.

19. The compound of any one of claims 1-18, or a pharmaceutically acceptable salt thereof, wherein R¹ and R² are both fluoro, methyl, or ethyl.

20. The compound of any one of claims 1-19, or a pharmaceutically acceptable salt thereof, wherein one or more of R^{9a}, R^{9b}, R^{9c}, R^{9d}, and R^{9e} are independently:

- i) H,
 - ii) halogen,
 - iii) C₁₋₃ alkyl optionally substituted with 1-3 groups independently selected from -OH and halogen,
 - iv) -OCH₃ optionally substituted with 1-3 halogen groups,
 - v) cyclopropyl, or
 - vi) -C(O)N(R¹⁹)₂,
- and wherein one or more of R^{9a}, R^{9b}, R^{9c}, R^{9d}, and R^{9e} is -C(O)N(R¹⁹)₂.

21. The compound of any one of claims 1-20, or a pharmaceutically acceptable salt thereof, wherein one or more of R^{9a}, R^{9b}, R^{9c}, R^{9d}, and R^{9e} are independently H, fluoro, chloro, methyl, ethyl, or -C(O)N(R¹⁹)₂, and wherein one or more of R^{9a}, R^{9b}, R^{9c}, R^{9d}, and R^{9e} is -C(O)N(R¹⁹)₂.

22. The compound of any one of claims 1-21, or a pharmaceutically acceptable salt thereof, wherein R^{9a}, R^{9b}, R^{9c}, and R^{9e} are independently H, fluoro, chloro, methyl, or ethyl and R^{9d} is -C(O)N(R¹⁹)₂; wherein each R¹⁹ is independently H or cyclopropyl, wherein the cyclopropyl is optionally substituted with a methyl, and wherein the methyl is optionally substituted with 1-3 groups independently selected from fluoro and -OCH₃.

23. The compound of claim 22, or a pharmaceutically acceptable salt thereof, wherein R^{9a}, R^{9b}, R^{9c}, and R^{9e} are independently H, fluoro, chloro, methyl, or ethyl and R^{9d} is -C(O)N(R¹⁹)₂; wherein each R¹⁹ is independently H or cyclopropyl, wherein the cyclopropyl is optionally substituted with a methyl, and wherein the methyl is optionally substituted with 1-3 fluoro groups.

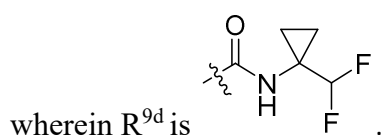
24. The compound of any one of claims 1-23, or a pharmaceutically acceptable salt thereof, wherein R^{9a}, R^{9b}, R^{9c}, and R^{9e} are independently H, fluoro, chloro, methyl, or ethyl and R^{9d} is -C(O)NH(R¹⁹); wherein R¹⁹ is cyclopropyl optionally substituted with a methyl, and wherein the

methyl is optionally substituted with 1-3 fluoro groups.

25. The compound of any one of claims 1-24, or a pharmaceutically acceptable salt thereof, wherein R^{9a} , R^{9b} , R^{9c} , and R^{9e} are independently H, fluoro, or chloro and R^{9d} is $-C(O)NH(R^{19})$; wherein R^{19} is cyclopropyl optionally substituted with a methyl, and wherein the methyl is optionally substituted with 1-3 fluoro groups.

26. The compound of any one of claims 1-25, or a pharmaceutically acceptable salt thereof, wherein R^{9a} , R^{9b} , and R^{9c} are independently fluoro or chloro, R^{9e} is H, and R^{9d} is $-C(O)NH(R^{19})$; wherein R^{19} is cyclopropyl optionally substituted with a methyl, wherein the methyl is optionally substituted with 1-3 fluoro groups.

27. The compound of any one of claims 1-26, or a pharmaceutically acceptable salt thereof,



28. The compound of any one of claims 1-27, or a pharmaceutically acceptable salt thereof, wherein R^{9a} is H or fluoro.

29. The compound of claim 28, or a pharmaceutically acceptable salt thereof, wherein R^{9b} is H or methyl.

30. The compound of claim 29, or a pharmaceutically acceptable salt thereof, wherein R^{9c} is H, fluoro, chloro, methyl, ethyl, $-CF_3$, $-OCF_3$, or cyclopropyl.

31. The compound of claim 30, or a pharmaceutically acceptable salt thereof, wherein R^{9e} is methyl.

32. The compound of claim 31, or a pharmaceutically acceptable salt thereof, wherein R^{9e} is H.

33. The compound of claim 32, or a pharmaceutically acceptable salt thereof, wherein R^{9d} is $-C(O)N(R^{19})_2$.

34. The compound of any one of claims 1-33, or a pharmaceutically acceptable salt thereof, wherein each R^{19} is independently:

- i) H,
- ii) methyl,

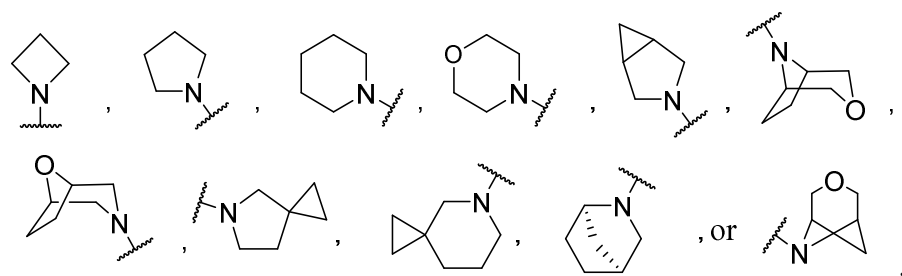
- iii) ethyl optionally substituted with 1 or 2 groups independently selected from -OH, fluoro, and -OCH₃,
- iv) n-propyl optionally substituted with 1 or 2 groups independently selected from fluoro and -OCH₃,
- v) isopropyl optionally substituted with 1 or 2 fluoro groups,
- vi) n-butyl,
- vii) isobutyl optionally substituted with 1 or 2 fluoro groups,
- viii) sec-butyl,
- ix) tert-butyl,
- x) cyclopropyl optionally substituted with a methyl, wherein the methyl is optionally substituted with 1-3 groups independently selected from fluoro and -OCH₃, or
- xi) cyclobutyl.

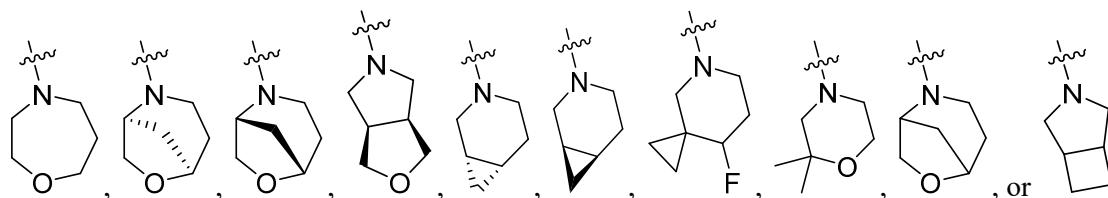
35. The compound of any one of claims 1-34, or a pharmaceutically acceptable salt thereof, wherein R⁷ is methyl, ethyl, isopropyl, sec-butyl, or cyclopropyl, wherein the cyclopropyl is optionally substituted with one methyl.

36. The compound of any one of claims 1-35, or a pharmaceutically acceptable salt thereof, wherein X is a 4-8 membered monocyclic, fused bicyclic, bridged bicyclic, or spirocyclic heterocyclyl having 1 or 2 heteroatoms independently selected from N and O, wherein the 4-8 membered monocyclic, fused bicyclic, bridged bicyclic, or spirocyclic heterocyclyl is optionally substituted with 1-5 R¹⁸.

37. The compound of any one of claims 1-36, or a pharmaceutically acceptable salt thereof, wherein X is azetidiny, pyrrolidinyl, piperidinyl, or morpholinyl, each of which is optionally substituted with 1-5 R¹⁸.

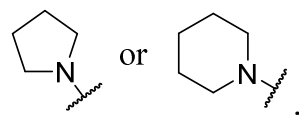
38. The compound any one of claims 1-37, or a pharmaceutically acceptable salt thereof, wherein X is:





each of which is optionally substituted with 1-5 R¹⁸.

39. The compound of any one of claims 1-38, or a pharmaceutically acceptable salt thereof, wherein X is:



each of which is optionally substituted with 1-4 R¹⁸.

40. The compound of any one of claims 1-39, or a pharmaceutically acceptable salt thereof, wherein each R¹⁸ is independently:

- i) -OH,
- ii) fluoro, or
- iii) C₁₋₃ alkyl optionally substituted with 1-3 groups independently selected from -OH and halogen.

41. A pharmaceutical composition comprising the compound of any one of claims 1-40, or a pharmaceutically acceptable salt thereof, and a pharmaceutically acceptable excipient or carrier.

42. The pharmaceutical composition of claim 41, further comprising one or more additional therapeutic agents, or a pharmaceutically acceptable salt thereof.

43. Use of a therapeutically effective amount of the compound of any one of claims 1-40, or a pharmaceutically acceptable salt thereof, for the manufacture of a medicament for the inhibition of hematopoietic progenitor kinase 1 (HPK1) activity in a subject in need thereof.

44. Use of a therapeutically effective amount of the compound of any one of claims 1-40, or a pharmaceutically acceptable salt thereof for the manufacture of a medicament for increasing T-cell activation in a subject in need thereof, wherein the T-cell activation is responsive to HPK1 modulation.

45. Use of a therapeutically effective amount of the compound of any one of claims 1-40, or a pharmaceutically acceptable salt thereof for the manufacture of a medicament for the treatment of cancer in a subject in need thereof, wherein the cancer is responsive to HPK1 modulation.