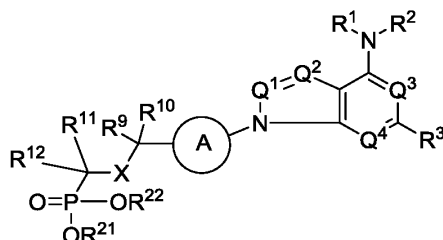


CLAIMS

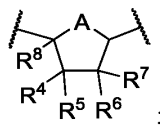
WHAT IS CLAIMED IS:

1. A compound of Formula (II), or a pharmaceutically acceptable salt, solvate, stereoisomer, or an isotopic variant thereof:



Formula (II);

wherein:



Ring A is

Q^1 is N and Q^2 is CW or Q^1 is N and Q^2 is N;

Q^3 and Q^4 are independently N or CW; provided that at least one of Q^3 or Q^4 is N;

each W is independently hydrogen, halogen, -CN, -OR^b, NR^cR^d, C₁-C₆ alkyl, or C₁-C₆ haloalkyl;

A is -O-;

X is -S- or -O-;

R¹ and R² are independently hydrogen, C₁-C₆ alkyl, C₁-C₆ haloalkyl, C₂-C₆ alkenyl, C₂-C₆ alkynyl, cycloalkyl, heterocycloalkyl, aryl, heteroaryl, C₁-C₆ alkyl(aryl), C₁-C₆ alkyl(heteroaryl), C₁-C₆ alkyl(cycloalkyl), or C₁-C₆ alkyl(heterocycloalkyl); wherein each alkyl, alkenyl, alkynyl, cycloalkyl, heterocycloalkyl, aryl, and heteroaryl is independently optionally substituted with one, two, or three R^{1a},

or R¹ and R² are taken together with the nitrogen atom to which they are attached to form a heterocycloalkyl optionally substituted with one, two, or three R^{1b};

each R^{1a} and R^{1b} is independently oxo (when feasible) halogen, -CN, -OR^b, -SR^b, -S(=O)R^a, -NO₂, -NR^cR^d, -S(=O)₂R^a, -NR^bS(=O)₂R^a, -S(=O)₂NR^cR^d, -C(=O)R^a, -OC(=O)R^a, -C(=O)OR^b, -OC(=O)OR^b, -C(=O)NR^cR^d, -OC(=O)NR^cR^d, -NR^bC(=O)NR^cR^d, -NR^bC(=O)R^a, -NR^bC(=O)OR^b, C₁-C₆ alkyl, C₁-C₆ fluoroalkyl, C₂-C₆ alkenyl, C₂-C₆ alkynyl, cycloalkyl, heterocycloalkyl, aryl, heteroaryl, C₁-C₆ alkyl(aryl), C₁-C₆ alkyl(heteroaryl), C₁-C₆ alkyl(cycloalkyl), or C₁-C₆ alkyl(heterocycloalkyl);

R³ is hydrogen, halogen, -CN, -OR^b, -SR^b, -NR^cR^d, C₁-C₆ alkyl, C₂-C₆ alkenyl, C₂-C₆ alkynyl, C₁-C₆ haloalkyl, C₁-C₆ hydroxyalkyl, C₁-C₆ heteroalkyl, cycloalkyl, heterocycloalkyl, aryl, heteroaryl, C₁-C₆ alkyl(aryl), C₁-C₆ alkyl(heteroaryl), C₁-C₆ alkyl(cycloalkyl), or C₁-C₆ alkyl(heterocycloalkyl);

wherein each alkyl, alkenyl, alkynyl, cycloalkyl, heterocycloalkyl, aryl, and heteroaryl is independently optionally substituted with one, two, or three R^{3a} ;

each R^{3a} is independently oxo (when feasible) halogen, -CN, -OR^b, -NR^cR^d, -C(=O)R^a, -C(=O)OR^b, -C(=O)NR^cR^d, C₁-C₆ alkyl, C₁-C₆ fluoroalkyl, C₂-C₆ alkenyl, C₂-C₆ alkynyl, cycloalkyl, heterocycloalkyl, aryl, or heteroaryl;

R^4 and R^7 are independently hydrogen, halogen, -OR^b, C₁-C₆ alkyl, C₁-C₆ haloalkyl, C₂-C₆ alkenyl, C₂-C₆ alkynyl, cycloalkyl, heterocycloalkyl, aryl, or heteroaryl;

R^5 and R^6 are independently hydrogen, halogen, -OR^b, C₁-C₆ alkyl, C₁-C₆ haloalkyl, C₂-C₆ alkenyl, C₂-C₆ alkynyl, cycloalkyl, heterocycloalkyl, aryl, or heteroaryl;

R^8 is hydrogen, halogen, -OR^b, -NR^cR^d, C₁-C₆ alkyl, or C₁-C₆ haloalkyl;

R^9 and R^{10} are independently hydrogen, halogen, C₁-C₆ alkyl, or C₁-C₆ haloalkyl;

R^{11} is halogen, -CN, -OR¹³, -SR¹³, -S(=O)R¹⁴, -NO₂, -NR¹⁵R¹⁶, -S(=O)₂R¹⁴, -NR¹³S(=O)₂R¹⁴, -S(=O)₂NR¹⁵R¹⁶, -C(=O)R¹⁴, -OC(=O)R¹⁴, -C(=O)OR¹³, -OC(=O)OR¹³, -C(=O)NR¹⁵R¹⁶, -OC(=O)NR¹⁵R¹⁶, -NR¹³C(=O)NR¹⁵R¹⁶, -NR¹³C(=O)R¹⁴, -NR¹³C(=O)OR¹³, C₁-C₆ alkyl, C₁-C₆ haloalkyl, C₁-C₆ hydroxyalkyl, C₂-C₆ alkenyl, C₂-C₆ alkynyl, C₁-C₆ heteroalkyl, cycloalkyl, heterocycloalkyl, aryl, or heteroaryl; wherein each alkyl, alkenyl, alkynyl, cycloalkyl, heterocycloalkyl, aryl, and heteroaryl is independently optionally substituted with one, two, or three R^{11a} ;

R^{12} is hydrogen, halogen, -CN, -OR¹³, -SR¹³, -S(=O)R¹⁴, -NO₂, -NR¹⁵R¹⁶, -S(=O)₂R¹⁴, -NR¹³S(=O)₂R¹⁴, -S(=O)₂NR¹⁵R¹⁶, -C(=O)R¹⁴, -OC(=O)R¹⁴, -C(=O)OR¹³, -OC(=O)OR¹³, -C(=O)NR¹⁵R¹⁶, -OC(=O)NR¹⁵R¹⁶, -NR¹³C(=O)NR¹⁵R¹⁶, -NR¹³C(=O)R¹⁴, -NR¹³C(=O)OR¹³, C₁-C₆ alkyl, C₁-C₆ haloalkyl, C₁-C₆ hydroxyalkyl, C₂-C₆ alkenyl, C₂-C₆ alkynyl, C₁-C₆ heteroalkyl, cycloalkyl, heterocycloalkyl, aryl, or heteroaryl; wherein each alkyl, alkenyl, alkynyl, cycloalkyl, heterocycloalkyl, aryl, and heteroaryl is independently optionally substituted with one, two, or three R^{12a} ;

or R^{11} and R^{12} are taken together to form a cycloalkyl or heterocycloalkyl each optionally substituted with one, two, or three R^{11b} ;

each R^{11a} , R^{11b} , and R^{12a} is independently oxo (when feasible), halogen, -CN, -OR¹³, -SR¹³, -S(=O)R¹⁴, -NO₂, -NR¹⁵R¹⁶, -S(=O)₂R¹⁴, -NR¹³S(=O)₂R¹⁴, -S(=O)₂NR¹⁵R¹⁶, -C(=O)R¹⁴, -OC(=O)R¹⁴, -C(=O)OR¹³, -OC(=O)OR¹³, -C(=O)NR¹⁵R¹⁶, -OC(=O)NR¹⁵R¹⁶, -NR¹³C(=O)NR¹⁵R¹⁶, -NR¹³C(=O)R¹⁴, -NR¹³C(=O)OR¹³, C₁-C₆ alkyl, C₁-C₆ haloalkyl, C₂-C₆ alkenyl, C₂-C₆ alkynyl, C₁-C₆ hydroxyalkyl, C₁-C₆ heteroalkyl, cycloalkyl, heterocycloalkyl, aryl, or heteroaryl; wherein each alkyl, alkenyl, alkynyl, cycloalkyl, heterocycloalkyl, aryl, and heteroaryl is independently optionally substituted with one, two, or three R^{11c} ;

each R^{11c} is independently oxo (when feasible), halogen, -CN, -OR^b, -SR^b, -S(=O)R^a, -NO₂, -NR^cR^d, -S(=O)₂R^a, -NR^bS(=O)₂R^a, -S(=O)₂NR^cR^d, -C(=O)R^a, -OC(=O)R^a, -C(=O)OR^b, -OC(=O)OR^b, -C(=O)NR^cR^d, -OC(=O)NR^cR^d, -NR^bC(=O)NR^cR^d, -NR^bC(=O)R^a, -NR^bC(=O)OR^b, C₁-C₆ alkyl, C₁-

C₆ haloalkyl, C₁-C₆ hydroxyalkyl, C₂-C₆ alkenyl, C₂-C₆ alkynyl, cycloalkyl, heterocycloalkyl, aryl, heteroaryl, C₁-C₆ alkyl(aryl), C₁-C₆ alkyl(heteroaryl), C₁-C₆ alkyl(cycloalkyl), or C₁-C₆ alkyl(heterocycloalkyl);

each R¹³ is independently hydrogen, C₁-C₆ alkyl, C₁-C₆ haloalkyl, C₂-C₆ alkenyl, C₂-C₆ alkynyl, C₁-C₆ heteroalkyl, cycloalkyl, heterocycloalkyl, aryl, or heteroaryl; wherein each alkyl, alkenyl, alkynyl, cycloalkyl, heterocycloalkyl, aryl, and heteroaryl is independently optionally substituted with one, two, or three R^{13a},

each R¹⁴ is independently C₁-C₆ alkyl, C₁-C₆ haloalkyl, C₂-C₆ alkenyl, C₂-C₆ alkynyl, C₁-C₆ heteroalkyl, cycloalkyl, heterocycloalkyl, aryl, or heteroaryl; wherein each alkyl, alkenyl, alkynyl, cycloalkyl, heterocycloalkyl, aryl, and heteroaryl is independently optionally substituted with one, two, or three R^{14a},

each R¹⁵ and R¹⁶ is independently hydrogen, C₁-C₆ alkyl, C₁-C₆ haloalkyl, C₂-C₆ alkenyl, C₂-C₆ alkynyl, C₁-C₆ heteroalkyl, cycloalkyl, heterocycloalkyl, aryl, or heteroaryl; wherein each alkyl, alkenyl, alkynyl, cycloalkyl, heterocycloalkyl, aryl, and heteroaryl is independently optionally substituted with one, two, or three R^{15a},

or R¹⁵ and R¹⁶ are taken together with the nitrogen atom to which they are attached to form a heterocycloalkyl optionally substituted with one, two, or three R^{15b};

each R^{13a}, R^{14a}, R^{15a}, and R^{15b} is independently oxo (when feasible), halogen, -CN, -OR^b, -SR^b, -S(=O)R^a, -NO₂, -NR^cR^d, -S(=O)₂R^a, -NR^bS(=O)₂R^a, -S(=O)₂NR^cR^d, -C(=O)R^a, -OC(=O)R^a, -C(=O)OR^b, -OC(=O)OR^b, -C(=O)NR^cR^d, -OC(=O)NR^cR^d, -NR^bC(=O)NR^cR^d, -NR^bC(=O)R^a, -NR^bC(=O)OR^b, C₁-C₆ alkyl, C₁-C₆ haloalkyl, C₂-C₆ alkenyl, C₂-C₆ alkynyl, cycloalkyl, heterocycloalkyl, aryl, heteroaryl, C₁-C₆ alkyl(aryl), C₁-C₆ alkyl(heteroaryl), C₁-C₆ alkyl(cycloalkyl), or C₁-C₆ alkyl(heterocycloalkyl); wherein each alkyl, cycloalkyl, heterocycloalkyl, aryl, and heteroaryl is independently optionally substituted with one, two, or three oxo (when feasible), halogen, -CN, -OR^b, -S(=O)R^a, -NO₂, -NR^cR^d, -S(=O)₂R^a, -S(=O)₂NR^cR^d, -C(=O)R^a, -C(=O)OR^b, -C(=O)NR^cR^d, C₁-C₆ alkyl, C₁-C₆ haloalkyl, C₂-C₆ alkenyl, or C₂-C₆ alkynyl;

R²¹ and R²² are independently hydrogen, C₁-C₂₀ alkyl, cycloalkyl, heterocycloalkyl, aryl, heteroaryl, C₁-C₆ alkyl(aryl), C₁-C₆ alkyl(heteroaryl), C₁-C₆ alkyl(cycloalkyl), C₁-C₆ alkyl(heterocycloalkyl); wherein each alkyl, cycloalkyl, heterocycloalkyl, aryl, and heteroaryl is independently optionally substituted with one, two, or three R^{21a};

or R²¹ and R²² are taken together with the atoms to which they are attached to form a heterocycloalkyl optionally substituted with one, two, or three R^{21b};

each R^{21a} and R^{21b} is independently oxo (when feasible), halogen, -CN, -OR^b, -SR^b, -S(=O)R^a, -NO₂, -NR^cR^d, -S(=O)₂R^a, -NR^bS(=O)₂R^a, -S(=O)₂NR^cR^d, -C(=O)R^a, -OC(=O)R^a, -C(=O)OR^b, -OC(=O)OR^b, -C(=O)NR^cR^d, -OC(=O)NR^cR^d, -NR^bC(=O)NR^cR^d, -NR^bC(=O)R^a, -NR^bC(=O)OR^b, C₁-C₆ alkyl, C₂-C₆ alkenyl, C₂-C₆ alkynyl, cycloalkyl, heterocycloalkyl, aryl, heteroaryl, C₁-C₆ alkyl(aryl), C₁-C₆ alkyl(heteroaryl), C₁-C₆ alkyl(cycloalkyl), or C₁-C₆ alkyl(heterocycloalkyl);

each R^a is independently C₁-C₆ alkyl, C₂-C₆ alkenyl, C₂-C₆ alkynyl, C₁-C₆ heteroalkyl, cycloalkyl, heterocycloalkyl, aryl, or heteroaryl; wherein the alkyl, alkenyl, alkynyl, heteroalkyl, cycloalkyl, heterocycloalkyl, aryl, and heteroaryl is independently optionally substituted with one, two, or three oxo (when feasible), halogen, -OH, C₁-C₆ alkyl, or C₁-C₆ haloalkyl;

each R^b is independently hydrogen, C₁-C₆ alkyl, C₂-C₆ alkenyl, C₂-C₆ alkynyl, C₁-C₆ heteroalkyl, cycloalkyl, heterocycloalkyl, aryl, or heteroaryl; wherein the alkyl, alkenyl, alkynyl, heteroalkyl, cycloalkyl, heterocycloalkyl, aryl, and heteroaryl is independently optionally substituted with one, two, or three oxo (when feasible), halogen, -OH, C₁-C₆ alkyl, or C₁-C₆ haloalkyl; and

each R^c and R^d is independently hydrogen, C₁-C₆ alkyl, C₂-C₆ alkenyl, C₂-C₆ alkynyl, C₁-C₆ heteroalkyl, cycloalkyl, heterocycloalkyl, aryl, or heteroaryl; wherein the alkyl, alkenyl, alkynyl, heteroalkyl, cycloalkyl, heterocycloalkyl, aryl, and heteroaryl is independently optionally substituted with one, two, or three oxo (when feasible), halogen, -OH, C₁-C₆ alkyl, or C₁-C₆ haloalkyl;

or R^c and R^d are taken together with the nitrogen atom to which they are attached to form a heterocycloalkyl optionally substituted with one, two, or three oxo, halogen, C₁-C₆ alkyl, or C₁-C₆ haloalkyl.

2. The compound of claim 1, or a pharmaceutically acceptable salt, solvate, stereoisomer, or isotopic variant thereof, wherein:
Q¹ is N; and
Q² is CW.
3. The compound of claim 1, or a pharmaceutically acceptable salt, solvate, stereoisomer, or isotopic variant thereof, wherein:
Q¹ is N; and
Q² is N.
4. The compound of any one of claims 1-3, or a pharmaceutically acceptable salt, solvate, stereoisomer, or isotopic variant thereof, wherein:
Q³ is N and Q⁴ is CW.
5. The compound of any one of claims 1-3, or a pharmaceutically acceptable salt, solvate, stereoisomer, or isotopic variant thereof, wherein:
Q⁴ is N and Q³ is CW.
6. The compound of any one of claims 1-3, or a pharmaceutically acceptable salt, solvate, stereoisomer, or isotopic variant thereof, wherein:
Q³ is N and Q⁴ is N.
7. The compound of any one of claims 1-6, or a pharmaceutically acceptable salt, solvate, stereoisomer, or isotopic variant thereof, wherein:
each W is independently hydrogen, halogen, or C₁-C₆ alkyl.
8. The compound of any one of claims 1-7, or a pharmaceutically acceptable salt, solvate, stereoisomer, or isotopic variant thereof, wherein:

each W is hydrogen.

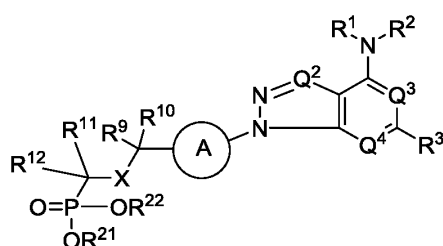
9. The compound of any one of claims 1-8, or a pharmaceutically acceptable salt, solvate, stereoisomer, or isotopic variant thereof, wherein:
 R^3 is halogen, $-OR^b$, C_1-C_6 alkyl, C_2-C_6 alkynyl, C_1-C_6 haloalkyl, C_1-C_6 hydroxyalkyl, or C_1-C_6 heteroalkyl; wherein each alkyl and alkynyl is independently optionally substituted with one, two, or three R^{3a} .
10. The compound of any one of claims 1-9, or a pharmaceutically acceptable salt, solvate, stereoisomer, or isotopic variant thereof, wherein:
 R^3 is halogen, $-OR^b$, C_2-C_6 alkynyl, or C_1-C_6 hydroxyalkyl; wherein each alkyl and alkynyl is independently optionally substituted with one, two, or three R^{3a} .
11. The compound of any one of claims 1-10, or a pharmaceutically acceptable salt, solvate, stereoisomer, or isotopic variant thereof, wherein:
 R^3 is halogen.
12. The compound of any one of claims 1-11, or a pharmaceutically acceptable salt, solvate, stereoisomer, or isotopic variant thereof, wherein:
 R^1 is C_1-C_6 alkyl, C_1-C_6 haloalkyl, cycloalkyl, heterocycloalkyl, C_1-C_6 alkyl(aryl), C_1-C_6 alkyl(heteroaryl), C_1-C_6 alkyl(cycloalkyl), or C_1-C_6 alkyl(heterocycloalkyl); wherein each alkyl, cycloalkyl, heterocycloalkyl, aryl, and heteroaryl is independently optionally substituted with one, two, or three R^{1a} .
13. The compound of any one of claims 1-12, or a pharmaceutically acceptable salt, solvate, stereoisomer, or isotopic variant thereof, wherein:
 R^1 is C_1-C_6 alkyl, cycloalkyl, C_1-C_6 alkyl(aryl), or C_1-C_6 alkyl(cycloalkyl); wherein each alkyl, cycloalkyl, and aryl is independently optionally substituted with one, two, or three R^{1a} .
14. The compound of any one of claims 1-13, or a pharmaceutically acceptable salt, solvate, stereoisomer, or isotopic variant thereof, wherein:
 R^1 is cycloalkyl optionally substituted with one, two, or three R^{1a} .
15. The compound of any one of claims 1-14, or a pharmaceutically acceptable salt, solvate, stereoisomer, or isotopic variant thereof, wherein:
each R^{1a} is independently oxo (when feasible) halogen, $-CN$, $-OR^b$, C_1-C_6 alkyl, or C_1-C_6 fluoroalkyl.
16. The compound of any one of claims 1-15, or a pharmaceutically acceptable salt, solvate, stereoisomer, or isotopic variant thereof, wherein:
each R^{1a} is independently halogen or C_1-C_6 alkyl.
17. The compound of any one of claims 1-16, or a pharmaceutically acceptable salt, solvate, stereoisomer, or isotopic variant thereof, wherein:
 R^2 is hydrogen or C_1-C_6 alkyl.
18. The compound of any one of claims 1-17, or a pharmaceutically acceptable salt, solvate, stereoisomer, or isotopic variant thereof, wherein:

- R^2 is hydrogen.
19. The compound of any one of claims 1-18, or a pharmaceutically acceptable salt, solvate, stereoisomer, or isotopic variant thereof, wherein:
 R^8 is hydrogen or C_1 - C_6 alkyl.
20. The compound of any one of claims 1-19, or a pharmaceutically acceptable salt, solvate, stereoisomer, or isotopic variant thereof, wherein:
 R^8 is hydrogen.
21. The compound of any one of claims 1-20, or a pharmaceutically acceptable salt, solvate, stereoisomer, or isotopic variant thereof, wherein:
 R^9 and R^{10} are independently hydrogen or C_1 - C_6 alkyl.
22. The compound of any one of claims 1-21, or a pharmaceutically acceptable salt, solvate, stereoisomer, or isotopic variant thereof, wherein:
 R^9 and R^{10} are hydrogen.
23. The compound of any one of claims 1-22, or a pharmaceutically acceptable salt, solvate, stereoisomer, or isotopic variant thereof, wherein:
A is -O-.
24. The compound of any one of claims 1-22, or a pharmaceutically acceptable salt, solvate, stereoisomer, or isotopic variant thereof, wherein:
X is -O-.
25. The compound of any one of claims 1-24, or a pharmaceutically acceptable salt, solvate, stereoisomer, or isotopic variant thereof, wherein:
 R^5 and R^6 are independently hydrogen, halogen, -OR^b, C_1 - C_6 alkyl, or C_1 - C_6 haloalkyl.
26. The compound of any one of claims 1-25, or a pharmaceutically acceptable salt, solvate, stereoisomer, or isotopic variant thereof, wherein:
 R^5 and R^6 are hydrogen.
27. The compound of any one of claims 1-26, or a pharmaceutically acceptable salt, solvate, stereoisomer, or isotopic variant thereof, wherein:
 R^4 and R^7 are independently hydrogen, halogen, -OR^b, C_1 - C_6 alkyl, or C_1 - C_6 haloalkyl.
28. The compound of any one of claims 1-27, or a pharmaceutically acceptable salt, solvate, stereoisomer, or isotopic variant thereof, wherein:
 R^4 and R^7 are independently hydrogen, halogen, or -OH.
29. The compound of any one of claims 1-28, or a pharmaceutically acceptable salt, solvate, stereoisomer, or isotopic variant thereof, wherein:
 R^4 and R^7 are independently halogen or -OH.
30. The compound of any one of claims 1-29, or a pharmaceutically acceptable salt, solvate, stereoisomer, or isotopic variant thereof, wherein:
 R^4 and R^7 are independently hydrogen or -OH.

31. The compound of any one of claims 1-30, or a pharmaceutically acceptable salt, solvate, stereoisomer, or isotopic variant thereof, wherein:
 R^4 and R^7 are -OH.
32. The compound of any one of claims 1-31, or a pharmaceutically acceptable salt, solvate, stereoisomer, or isotopic variant thereof, wherein:
 R^{21} and R^{22} are hydrogen.
33. The compound of any one of claims 1-32, or a pharmaceutically acceptable salt, solvate, stereoisomer, or isotopic variant thereof, wherein:
 R^{12} is hydrogen, halogen, $-OR^{13}$, C_1-C_6 alkyl, C_1-C_6 haloalkyl, C_1-C_6 hydroxyalkyl, C_2-C_6 alkynyl, or C_1-C_6 heteroalkyl; wherein each alkyl and alkynyl is independently optionally substituted with one, two, or three R^{12a} .
34. The compound of any one of claims 1-33, or a pharmaceutically acceptable salt, solvate, stereoisomer, or isotopic variant thereof, wherein:
 R^{12} is hydrogen, C_1-C_6 alkyl, C_1-C_6 hydroxyalkyl, or C_2-C_6 alkynyl; wherein each alkyl and alkynyl is independently optionally substituted with one, two, or three R^{12a} .
35. The compound of any one of claims 1-34, or a pharmaceutically acceptable salt, solvate, stereoisomer, or isotopic variant thereof, wherein:
 R^{12} is hydrogen.
36. The compound of any one of claims 1-35, or a pharmaceutically acceptable salt, solvate, stereoisomer, or isotopic variant thereof, wherein:
 R^{11} is halogen, -CN, $-OR^{13}$, $-NR^{15}R^{16}$, $-S(=O)_2R^{14}$, $-C(=O)OR^{13}$, C_1-C_6 alkyl, C_1-C_6 haloalkyl, C_1-C_6 hydroxyalkyl, C_2-C_6 alkynyl, C_1-C_6 heteroalkyl, cycloalkyl, heterocycloalkyl, aryl, or heteroaryl; wherein each alkyl, alkynyl, cycloalkyl, heterocycloalkyl, aryl, and heteroaryl is independently optionally substituted with one, two, or three R^{11a} .
37. The compound of any one of claims 1-36, or a pharmaceutically acceptable salt, solvate, stereoisomer, or isotopic variant thereof, wherein:
 R^{11} is -CN, $-S(=O)_2R^{14}$, $-C(=O)OR^{13}$, C_1-C_6 alkyl, C_1-C_6 haloalkyl, C_1-C_6 hydroxyalkyl, C_2-C_6 alkynyl, or heteroaryl; wherein each alkyl, alkynyl, and heteroaryl is independently optionally substituted with one, two, or three R^{11a} .
38. The compound of any one of claims 1-37, or a pharmaceutically acceptable salt, solvate, stereoisomer, or isotopic variant thereof, wherein:
 R^{11} is -CN, $-S(=O)_2R^{14}$, $-C(=O)OR^{13}$, C_1-C_6 alkyl, C_1-C_6 haloalkyl, C_1-C_6 hydroxyalkyl, or heteroaryl; wherein each alkyl and heteroaryl is independently optionally substituted with one, two, or three R^{11a} .
39. The compound of any one of claims 1-38, or a pharmaceutically acceptable salt, solvate, stereoisomer, or isotopic variant thereof, wherein:
 R^{11} is C_1-C_6 alkyl optionally substituted with one, two, or three R^{11a} .

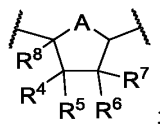
40. The compound of any one of claims 1-39, or a pharmaceutically acceptable salt, solvate, stereoisomer, or isotopic variant thereof, wherein:
 R^{11} is C_1 - C_6 alkyl substituted with one R^{11a} .
41. The compound of any one of claims 1-40, or a pharmaceutically acceptable salt, solvate, stereoisomer, or isotopic variant thereof, wherein:
 each R^{11a} is oxo (when feasible), halogen, $-OR^{13}$, $-SR^{13}$, $-S(=O)R^{14}$, $-NR^{15}R^{16}$, $-S(=O)_2R^{14}$, $-NR^{13}S(=O)_2R^{14}$, $-S(=O)_2NR^{15}R^{16}$, $-C(=O)R^{14}$, $-C(=O)OR^{13}$, $-C(=O)NR^{15}R^{16}$, $-OC(=O)NR^{15}R^{16}$, $-NR^{13}C(=O)R^{14}$, C_1 - C_6 alkyl, C_1 - C_6 haloalkyl, C_1 - C_6 hydroxyalkyl, C_1 - C_6 heteroalkyl, cycloalkyl, heterocycloalkyl, aryl, or heteroaryl; wherein each alkyl, cycloalkyl, heterocycloalkyl, aryl, and heteroaryl is independently optionally substituted with one, two, or three R^{11c} .
42. The compound of any one of claims 1-41, or a pharmaceutically acceptable salt, solvate, stereoisomer, or isotopic variant thereof, wherein:
 each R^{11a} is independently oxo (when feasible), halogen, $-OR^{13}$, $-SR^{13}$, $-NR^{15}R^{16}$, $-S(=O)_2R^{14}$, $-NR^{13}S(=O)_2R^{14}$, $-S(=O)_2NR^{15}R^{16}$, $-C(=O)OR^{13}$, $-OC(=O)NR^{15}R^{16}$, $-NR^{13}C(=O)R^{14}$, heterocycloalkyl, aryl, or heteroaryl; wherein each heterocycloalkyl, aryl, and heteroaryl is independently optionally substituted with one, two, or three R^{11c} .
43. The compound of any one of claims 1-42, or a pharmaceutically acceptable salt, solvate, stereoisomer, or isotopic variant thereof, wherein:
 each R^{11a} is independently $-OR^{13}$.
44. The compound of any one of claims 1-43, or a pharmaceutically acceptable salt, solvate, stereoisomer, or isotopic variant thereof, wherein:
 R^{11} and R^{12} are taken together to form a cycloalkyl or heterocycloalkyl each optionally substituted with one, two, or three R^{11b} .
45. The compound of any one of claims 1-44, or a pharmaceutically acceptable salt, solvate, stereoisomer, or isotopic variant thereof, wherein:
 each R^{13} is independently hydrogen, C_1 - C_6 alkyl, C_1 - C_6 haloalkyl, C_1 - C_6 heteroalkyl, cycloalkyl, heterocycloalkyl, aryl, or heteroaryl; wherein each alkyl, cycloalkyl, heterocycloalkyl, aryl, and heteroaryl is independently optionally substituted with one, two, or three R^{13a} .
46. The compound of any one of claims 1-45, or a pharmaceutically acceptable salt, solvate, stereoisomer, or isotopic variant thereof, wherein:
 each R^{13} is independently C_1 - C_6 alkyl, C_1 - C_6 haloalkyl, or cycloalkyl; wherein each alkyl and cycloalkyl is independently optionally substituted with one, two, or three R^{13a} .
47. The compound of any one of claims 1-45, or a pharmaceutically acceptable salt, solvate, stereoisomer, or isotopic variant thereof, wherein:
 each R^{13} is independently C_1 - C_6 alkyl.
48. The compound of any one of claims 1-47, or a pharmaceutically acceptable salt, solvate, stereoisomer, or isotopic variant thereof, wherein:

- each R^{14} is independently C_1 - C_6 alkyl.
49. The compound of any one of claims 1-48, or a pharmaceutically acceptable salt, solvate, stereoisomer, or isotopic variant thereof, wherein:
each R^{15} and R^{16} is independently hydrogen or C_1 - C_6 alkyl.
50. The compound of any one of claims 1-49, or a pharmaceutically acceptable salt, solvate, stereoisomer, or isotopic variant thereof, wherein:
 R^{15} and R^{16} are taken together with the nitrogen atom to which they are attached to form a heterocycloalkyl.
51. A compound of Formula (IV), or a pharmaceutically acceptable salt, solvate, stereoisomer, or isotopic variant thereof:



Formula (IV);

wherein:



Ring A is

Q^2 is N or CW;

Q^3 is N and Q^4 is CW;

or Q^3 is CW and Q^4 is N;

each W is independently hydrogen, halogen, -CN, -OR^b, NR^cR^d, C_1 - C_6 alkyl, or C_1 - C_6 haloalkyl;

A is -O- or -CH₂-;

X is -O-, -S-, -S(=O)₂-, -NR¹⁷-, or -C(R¹⁸)₂-;

R^1 and R^2 are independently hydrogen, C_1 - C_6 alkyl, C_1 - C_6 haloalkyl, C_2 - C_6 alkenyl, C_2 - C_6 alkynyl, cycloalkyl, heterocycloalkyl, aryl, heteroaryl, C_1 - C_6 alkyl(aryl), C_1 - C_6 alkyl(heteroaryl), C_1 - C_6 alkyl(cycloalkyl), or C_1 - C_6 alkyl(heterocycloalkyl); wherein each alkyl, alkenyl, alkynyl, cycloalkyl, heterocycloalkyl, aryl, and heteroaryl is independently optionally substituted with one, two, or three R^{1a} ,

or R^1 and R^2 are taken together with the nitrogen atom to which they are attached to form a heterocycloalkyl optionally substituted with one, two, or three R^{1b} ,

each R^{1a} and R^{1b} is independently oxo (when feasible) halogen, -CN, -OR^b, -SR^b, -S(=O)R^a, -NO₂, -NR^cR^d, -S(=O)₂R^a, -NR^bS(=O)₂R^a, -S(=O)₂NR^cR^d, -C(=O)R^a, -OC(=O)R^a, -C(=O)OR^b, -OC(=O)OR^b, -C(=O)NR^cR^d, -OC(=O)NR^cR^d, -NR^bC(=O)NR^cR^d, -NR^bC(=O)R^a, -NR^bC(=O)OR^b,

C₁-C₆ alkyl, C₁-C₆ fluoroalkyl, C₂-C₆ alkenyl, C₂-C₆ alkynyl, cycloalkyl, heterocycloalkyl, aryl, heteroaryl, C₁-C₆ alkyl(aryl), C₁-C₆ alkyl(heteroaryl), C₁-C₆ alkyl(cycloalkyl), or C₁-C₆ alkyl(heterocycloalkyl);

R³ is hydrogen, halogen, -CN, -OR^b, -SR^b, -NR^cR^d, C₁-C₆ alkyl, C₂-C₆ alkenyl, C₂-C₆ alkynyl, C₁-C₆ haloalkyl, C₁-C₆ hydroxyalkyl, C₁-C₆ heteroalkyl, cycloalkyl, heterocycloalkyl, aryl, heteroaryl, C₁-C₆ alkyl(aryl), C₁-C₆ alkyl(heteroaryl), C₁-C₆ alkyl(cycloalkyl), or C₁-C₆ alkyl(heterocycloalkyl); wherein each alkyl, alkenyl, alkynyl, cycloalkyl, heterocycloalkyl, aryl, and heteroaryl is independently optionally substituted with one, two, or three R^{3a},

each R^{3a} is independently oxo (when feasible) halogen, -CN, -OR^b, -NR^cR^d, -C(=O)R^a, -C(=O)OR^b, -C(=O)NR^cR^d, C₁-C₆ alkyl, C₁-C₆ fluoroalkyl, C₂-C₆ alkenyl, C₂-C₆ alkynyl, cycloalkyl, heterocycloalkyl, aryl, or heteroaryl;

R⁴ and R⁷ are independently hydrogen, halogen, -OR^b, C₁-C₆ alkyl, C₁-C₆ haloalkyl, C₂-C₆ alkenyl, C₂-C₆ alkynyl, cycloalkyl, heterocycloalkyl, aryl, or heteroaryl;

R⁵ and R⁶ are independently hydrogen, halogen, -OR^b, C₁-C₆ alkyl, C₁-C₆ haloalkyl, C₂-C₆ alkenyl, C₂-C₆ alkynyl, cycloalkyl, heterocycloalkyl, aryl, or heteroaryl;

R⁸ is hydrogen, halogen, -OR^b, -NR^cR^d, C₁-C₆ alkyl, or C₁-C₆ haloalkyl;

R⁹ and R¹⁰ are independently hydrogen, halogen, C₁-C₆ alkyl, or C₁-C₆ haloalkyl;

R¹¹ is hydrogen, halogen, -CN, -OR¹³, -SR¹³, -S(=O)R¹⁴, -NO₂, -NR¹⁵R¹⁶, -S(=O)₂R¹⁴, -NR¹³S(=O)₂R¹⁴, -S(=O)₂NR¹⁵R¹⁶, -C(=O)R¹⁴, -OC(=O)R¹⁴, -C(=O)OR¹³, -OC(=O)OR¹³, -C(=O)NR¹⁵R¹⁶, -OC(=O)NR¹⁵R¹⁶, -NR¹³C(=O)NR¹⁵R¹⁶, -NR¹³C(=O)R¹⁴, -NR¹³C(=O)OR¹³, C₁-C₆ alkyl, C₁-C₆ haloalkyl, C₁-C₆ hydroxyalkyl, C₂-C₆ alkenyl, C₂-C₆ alkynyl, C₁-C₆ heteroalkyl, cycloalkyl, heterocycloalkyl, aryl, or heteroaryl; wherein each alkyl, alkenyl, alkynyl, cycloalkyl, heterocycloalkyl, aryl, and heteroaryl is independently optionally substituted with one, two, or three R^{11a},

R¹² is hydrogen, halogen, -CN, -OR¹³, -SR¹³, -S(=O)R¹⁴, -NO₂, -NR¹⁵R¹⁶, -S(=O)₂R¹⁴, -NR¹³S(=O)₂R¹⁴, -S(=O)₂NR¹⁵R¹⁶, -C(=O)R¹⁴, -OC(=O)R¹⁴, -C(=O)OR¹³, -OC(=O)OR¹³, -C(=O)NR¹⁵R¹⁶, -OC(=O)NR¹⁵R¹⁶, -NR¹³C(=O)NR¹⁵R¹⁶, -NR¹³C(=O)R¹⁴, -NR¹³C(=O)OR¹³, C₁-C₆ alkyl, C₁-C₆ haloalkyl, C₁-C₆ hydroxyalkyl, C₂-C₆ alkenyl, C₂-C₆ alkynyl, C₁-C₆ heteroalkyl, cycloalkyl, heterocycloalkyl, aryl, or heteroaryl; wherein each alkyl, alkenyl, alkynyl, cycloalkyl, heterocycloalkyl, aryl, and heteroaryl is independently optionally substituted with one, two, or three R^{12a},

or R¹¹ and R¹² are taken together to form a cycloalkyl or heterocycloalkyl each optionally substituted with one, two, or three R^{11b};

each R^{11a}, R^{11b}, and R^{12a} is independently oxo (when feasible), halogen, -CN, -OR¹³, -SR¹³, -S(=O)R¹⁴, -NO₂, -NR¹⁵R¹⁶, -S(=O)₂R¹⁴, -NR¹³S(=O)₂R¹⁴, -S(=O)₂NR¹⁵R¹⁶, -C(=O)R¹⁴, -OC(=O)R¹⁴, -C(=O)OR¹³, -OC(=O)OR¹³, -C(=O)NR¹⁵R¹⁶, -OC(=O)NR¹⁵R¹⁶, -NR¹³C(=O)NR¹⁵R¹⁶, -NR¹³C(=O)R¹⁴, -NR¹³C(=O)OR¹³, C₁-C₆ alkyl, C₁-C₆ haloalkyl, C₂-C₆ alkenyl, C₂-C₆ alkynyl, C₁-C₆

hydroxyalkyl, C₁-C₆ heteroalkyl, cycloalkyl, heterocycloalkyl, aryl, or heteroaryl; wherein each alkyl, alkenyl, alkynyl, cycloalkyl, heterocycloalkyl, aryl, and heteroaryl is independently optionally substituted with one, two, or three R^{11c};

each R^{11c} is independently oxo (when feasible), halogen, -CN, -OR^b, -SR^b, -S(=O)R^a, -NO₂, -NR^cR^d, -S(=O)₂R^a, -NR^bS(=O)₂R^a, -S(=O)₂NR^cR^d, -C(=O)R^a, -OC(=O)R^a, -C(=O)OR^b, -OC(=O)OR^b, -C(=O)NR^cR^d, -OC(=O)NR^cR^d, -NR^bC(=O)NR^cR^d, -NR^bC(=O)R^a, -NR^bC(=O)OR^b, C₁-C₆ alkyl, C₁-C₆ haloalkyl, C₁-C₆ hydroxyalkyl, C₂-C₆ alkenyl, C₂-C₆ alkynyl, cycloalkyl, heterocycloalkyl, aryl, heteroaryl, C₁-C₆ alkyl(aryl), C₁-C₆ alkyl(heteroaryl), C₁-C₆ alkyl(cycloalkyl), or C₁-C₆ alkyl(heterocycloalkyl);

each R¹³ is independently hydrogen, C₁-C₆ alkyl, C₁-C₆ haloalkyl, C₂-C₆ alkenyl, C₂-C₆ alkynyl, C₁-C₆ heteroalkyl, cycloalkyl, heterocycloalkyl, aryl, or heteroaryl; wherein each alkyl, alkenyl, alkynyl, cycloalkyl, heterocycloalkyl, aryl, and heteroaryl is independently optionally substituted with one, two, or three R^{13a};

each R¹⁴ is independently C₁-C₆ alkyl, C₁-C₆ haloalkyl, C₂-C₆ alkenyl, C₂-C₆ alkynyl, C₁-C₆ heteroalkyl, cycloalkyl, heterocycloalkyl, aryl, or heteroaryl; wherein each alkyl, alkenyl, alkynyl, cycloalkyl, heterocycloalkyl, aryl, and heteroaryl is independently optionally substituted with one, two, or three R^{14a};

each R¹⁵ and R¹⁶ is independently hydrogen, C₁-C₆ alkyl, C₁-C₆ haloalkyl, C₂-C₆ alkenyl, C₂-C₆ alkynyl, C₁-C₆ heteroalkyl, cycloalkyl, heterocycloalkyl, aryl, or heteroaryl; wherein each alkyl, alkenyl, alkynyl, cycloalkyl, heterocycloalkyl, aryl, and heteroaryl is independently optionally substituted with one, two, or three R^{15a};

or R¹⁵ and R¹⁶ are taken together with the nitrogen atom to which they are attached to form a heterocycloalkyl optionally substituted with one, two, or three R^{15b};

each R^{13a}, R^{14a}, R^{15a}, and R^{15b} is independently oxo (when feasible), halogen, -CN, -OR^b, -SR^b, -S(=O)R^a, -NO₂, -NR^cR^d, -S(=O)₂R^a, -NHS(=O)₂R^a, -S(=O)₂NR^cR^d, -C(=O)R^a, -OC(=O)R^a, -C(=O)OR^b, -OC(=O)OR^b, -C(=O)NR^cR^d, -OC(=O)NR^cR^d, -NR^bC(=O)NR^cR^d, -NR^bC(=O)R^a, -NR^bC(=O)OR^b, C₁-C₆ alkyl, C₁-C₆ haloalkyl, C₂-C₆ alkenyl, C₂-C₆ alkynyl, cycloalkyl, heterocycloalkyl, aryl, heteroaryl, C₁-C₆ alkyl(aryl), C₁-C₆ alkyl(heteroaryl), C₁-C₆ alkyl(cycloalkyl), or C₁-C₆ alkyl(heterocycloalkyl); wherein each alkyl, cycloalkyl, heterocycloalkyl, aryl, and heteroaryl is independently optionally substituted with one, two, or three oxo (when feasible), halogen, -CN, -OR^b, -S(=O)R^a, -NO₂, -NR^cR^d, -S(=O)₂R^a, -S(=O)₂NR^cR^d, -C(=O)R^a, -C(=O)OR^b, -C(=O)NR^cR^d, C₁-C₆ alkyl, C₁-C₆ haloalkyl, C₂-C₆ alkenyl, or C₂-C₆ alkynyl;

R¹⁷ is hydrogen, -CN, -OR^b, -S(=O)₂R^a, -C(=O)R^a, -C(=O)OR^b, -C(=O)NR^cR^d, C₁-C₆ alkyl, C₁-C₆ fluoroalkyl, C₂-C₆ alkenyl, C₂-C₆ alkynyl, cycloalkyl, heterocycloalkyl, aryl, heteroaryl, C₁-C₆ alkyl(aryl), C₁-C₆ alkyl(heteroaryl), C₁-C₆ alkyl(cycloalkyl), or C₁-C₆ alkyl(heterocycloalkyl);

each R¹⁸ is independently hydrogen, halogen, -CN, -OR^b, -SR^b, -S(=O)R^a, -NO₂, -NR^cR^d, -S(=O)₂R^a, -NHS(=O)₂R^a, -S(=O)₂NR^cR^d, -C(=O)R^a, -OC(=O)R^a, -C(=O)OR^b, -OC(=O)OR^b, -C(=O)NR^cR^d, -

OC(=O)NR^cR^d, -NR^bC(=O)NR^cR^d, -NR^bC(=O)R^a, -NR^bC(=O)OR^b, C₁-C₆ alkyl, C₁-C₆ haloalkyl, C₂-C₆ alkenyl, C₂-C₆ alkynyl, cycloalkyl, heterocycloalkyl, aryl, heteroaryl, C₁-C₆ alkyl(aryl), C₁-C₆ alkyl(heteroaryl), C₁-C₆ alkyl(cycloalkyl), or C₁-C₆ alkyl(heterocycloalkyl);

R²¹ and R²² are independently hydrogen, C₁-C₂₀ alkyl, cycloalkyl, heterocycloalkyl, aryl, heteroaryl, C₁-C₆ alkyl(aryl), C₁-C₆ alkyl(heteroaryl), C₁-C₆ alkyl(cycloalkyl), C₁-C₆ alkyl(heterocycloalkyl); wherein each alkyl, cycloalkyl, heterocycloalkyl, aryl, and heteroaryl is independently optionally substituted with one, two, or three R^{21a};

or R²¹ and R²² are taken together with the atoms to which they are attached to form a heterocycloalkyl optionally substituted with one, two, or three R^{21b};

each R^{21a} and R^{21b} is independently oxo (when feasible), halogen, -CN, -OR^b, -SR^b, -S(=O)R^a, -NO₂, -NR^cR^d, -S(=O)₂R^a, -NHS(=O)₂R^a, -S(=O)₂NR^cR^d, -C(=O)R^a, -OC(=O)R^a, -C(=O)OR^b, -OC(=O)OR^b, -C(=O)NR^cR^d, -OC(=O)NR^cR^d, -NR^bC(=O)NR^cR^d, -NR^bC(=O)R^a, -NR^bC(=O)OR^b, C₁-C₆ alkyl, C₂-C₆ alkenyl, C₂-C₆ alkynyl, cycloalkyl, heterocycloalkyl, aryl, heteroaryl, C₁-C₆ alkyl(aryl), C₁-C₆ alkyl(heteroaryl), C₁-C₆ alkyl(cycloalkyl), or C₁-C₆ alkyl(heterocycloalkyl);

each R^a is independently C₁-C₆ alkyl, C₂-C₆ alkenyl, C₂-C₆ alkynyl, C₁-C₆ heteroalkyl, cycloalkyl, heterocycloalkyl, aryl, or heteroaryl; wherein the alkyl, alkenyl, alkynyl, heteroalkyl, cycloalkyl, heterocycloalkyl, aryl, and heteroaryl is independently optionally substituted with one, two, or three oxo (when feasible), halogen, -OH, C₁-C₆ alkyl, or C₁-C₆ haloalkyl;

each R^b is independently hydrogen, C₁-C₆ alkyl, C₂-C₆ alkenyl, C₂-C₆ alkynyl, C₁-C₆ heteroalkyl, cycloalkyl, heterocycloalkyl, aryl, or heteroaryl; wherein the alkyl, alkenyl, alkynyl, heteroalkyl, cycloalkyl, heterocycloalkyl, aryl, and heteroaryl is independently optionally substituted with one, two, or three oxo (when feasible), halogen, -OH, C₁-C₆ alkyl, or C₁-C₆ haloalkyl; and

each R^c and R^d is independently hydrogen, C₁-C₆ alkyl, C₂-C₆ alkenyl, C₂-C₆ alkynyl, C₁-C₆ heteroalkyl, cycloalkyl, heterocycloalkyl, aryl, or heteroaryl; wherein the alkyl, alkenyl, alkynyl, heteroalkyl, cycloalkyl, heterocycloalkyl, aryl, and heteroaryl is independently optionally substituted with one, two, or three oxo (when feasible), halogen, -OH, C₁-C₆ alkyl, or C₁-C₆ haloalkyl;

or R^c and R^d are taken together with the nitrogen atom to which they are attached to form a heterocycloalkyl optionally substituted with one, two, or three oxo, halogen, C₁-C₆ alkyl, or C₁-C₆ haloalkyl.

52. The compound of claim 51, or a pharmaceutically acceptable salt, solvate, stereoisomer, or isotopic variant thereof, wherein:
Q² is CW.
53. The compound of claim 51, or a pharmaceutically acceptable salt, solvate, stereoisomer, or isotopic variant thereof, wherein:
Q² is N.
54. The compound of any one of claims 51-53, or a pharmaceutically acceptable salt, solvate, stereoisomer, or isotopic variant thereof, wherein:

Q³ is N and Q⁴ is CW.

55. The compound of any one of claims 51-54, or a pharmaceutically acceptable salt, solvate, stereoisomer, or isotopic variant thereof, wherein:
Q⁴ is N and Q³ is CW.
56. The compound of any one of claims 51-55, or a pharmaceutically acceptable salt, solvate, stereoisomer, or isotopic variant thereof, wherein:
each W is independently hydrogen, halogen, or C₁-C₆ alkyl.
57. The compound of any one of claims 51-56, or a pharmaceutically acceptable salt, solvate, stereoisomer, or isotopic variant thereof, wherein:
each W is hydrogen.
58. The compound of any one of claims 51-57, or a pharmaceutically acceptable salt, solvate, stereoisomer, or isotopic variant thereof, wherein:
R³ is halogen, -OR^b, C₁-C₆ alkyl, C₂-C₆ alkynyl, C₁-C₆ haloalkyl, C₁-C₆ hydroxyalkyl, or C₁-C₆ heteroalkyl; wherein each alkyl and alkynyl is independently optionally substituted with one, two, or three R^{3a}.
59. The compound of any one of claims 51-58, or a pharmaceutically acceptable salt, solvate, stereoisomer, or isotopic variant thereof, wherein:
R³ is halogen, -OR^b, C₂-C₆ alkynyl, or C₁-C₆ hydroxyalkyl; wherein each alkyl and alkynyl is independently optionally substituted with one, two, or three R^{3a}.
60. The compound of any one of claims 51-59, or a pharmaceutically acceptable salt, solvate, stereoisomer, or isotopic variant thereof, wherein:
R³ is halogen.
61. The compound of any one of claims 51-60, or a pharmaceutically acceptable salt, solvate, stereoisomer, or isotopic variant thereof, wherein:
R¹ is C₁-C₆ alkyl, C₁-C₆ haloalkyl, cycloalkyl, heterocycloalkyl, C₁-C₆ alkyl(aryl), C₁-C₆ alkyl(heteroaryl), C₁-C₆ alkyl(cycloalkyl), or C₁-C₆ alkyl(heterocycloalkyl); wherein each alkyl, cycloalkyl, heterocycloalkyl, aryl, and heteroaryl is independently optionally substituted with one, two, or three R^{1a}.
62. The compound of any one of claims 51-61, or a pharmaceutically acceptable salt, solvate, stereoisomer, or isotopic variant thereof, wherein:
R¹ is C₁-C₆ alkyl, cycloalkyl, C₁-C₆ alkyl(aryl), or C₁-C₆ alkyl(cycloalkyl); wherein each alkyl, cycloalkyl, and aryl is independently optionally substituted with one, two, or three R^{1a}.
63. The compound of any one of claims 51-62, or a pharmaceutically acceptable salt, solvate, stereoisomer, or isotopic variant thereof, wherein:
R¹ is cycloalkyl optionally substituted with one, two, or three R^{1a}.
64. The compound of any one of claims 51-63, or a pharmaceutically acceptable salt, solvate, stereoisomer, or isotopic variant thereof, wherein:

- each R^{1a} is independently oxo (when feasible) halogen, -CN, -OR^b, C₁-C₆ alkyl, or C₁-C₆ fluoroalkyl.
65. The compound of any one of claims 51-64, or a pharmaceutically acceptable salt, solvate, stereoisomer, or isotopic variant thereof, wherein:
each R^{1a} is independently halogen or C₁-C₆ alkyl.
66. The compound of any one of claims 51-65, or a pharmaceutically acceptable salt, solvate, stereoisomer, or isotopic variant thereof, wherein:
R² is hydrogen or C₁-C₆ alkyl.
67. The compound of any one of claims 51-66, or a pharmaceutically acceptable salt, solvate, stereoisomer, or isotopic variant thereof, wherein:
R² is hydrogen.
68. The compound of any one of claims 51-67, or a pharmaceutically acceptable salt, solvate, stereoisomer, or isotopic variant thereof, wherein:
R⁸ is hydrogen or C₁-C₆ alkyl.
69. The compound of any one of claims 51-68, or a pharmaceutically acceptable salt, solvate, stereoisomer, or isotopic variant thereof, wherein:
R⁸ is hydrogen.
70. The compound of any one of claims 51-69, or a pharmaceutically acceptable salt, solvate, stereoisomer, or isotopic variant thereof, wherein:
R⁹ and R¹⁰ are independently hydrogen or C₁-C₆ alkyl.
71. The compound of any one of claims 51-70, or a pharmaceutically acceptable salt, solvate, stereoisomer, or isotopic variant thereof, wherein:
R⁹ and R¹⁰ are hydrogen.
72. The compound of any one of claims 51-71, or a pharmaceutically acceptable salt, solvate, stereoisomer, or isotopic variant thereof, wherein:
A is -O-.
73. The compound of any one of claims 51-72, or a pharmaceutically acceptable salt, solvate, stereoisomer, or isotopic variant thereof, wherein:
A is -CH₂-.
74. The compound of any one of claims 51-73, or a pharmaceutically acceptable salt, solvate, stereoisomer, or isotopic variant thereof, wherein:
R⁵ and R⁶ are independently hydrogen, halogen, -OR^b, C₁-C₆ alkyl, or C₁-C₆ haloalkyl.
75. The compound of any one of claims 51-74, or a pharmaceutically acceptable salt, solvate, stereoisomer, or isotopic variant thereof, wherein:
R⁵ and R⁶ are hydrogen.
76. The compound of any one of claims 51-75, or a pharmaceutically acceptable salt, solvate, stereoisomer, or isotopic variant thereof, wherein:
R⁴ and R⁷ are independently hydrogen, halogen, -OR^b, C₁-C₆ alkyl, or C₁-C₆ haloalkyl.

77. The compound of any one of claims 51-76, or a pharmaceutically acceptable salt, solvate, stereoisomer, or isotopic variant thereof, wherein:
 R^4 and R^7 are independently hydrogen, halogen, or -OH.
78. The compound of any one of claims 51-77, or a pharmaceutically acceptable salt, solvate, stereoisomer, or isotopic variant thereof, wherein:
 R^4 and R^7 are independently halogen or -OH.
79. The compound of any one of claims 51-78, or a pharmaceutically acceptable salt, solvate, stereoisomer, or isotopic variant thereof, wherein:
 R^4 and R^7 are independently hydrogen or -OH.
80. The compound of any one of claims 51-79, or a pharmaceutically acceptable salt, solvate, stereoisomer, or isotopic variant thereof, wherein:
 R^4 and R^7 are -OH.
81. The compound of any one of claims 51-80, or a pharmaceutically acceptable salt, solvate, stereoisomer, or isotopic variant thereof, wherein:
 R^{21} and R^{22} are hydrogen.
82. The compound of any one of claims 51-81, or a pharmaceutically acceptable salt, solvate, stereoisomer, or isotopic variant thereof, wherein:
 R^{12} is hydrogen, halogen, $-OR^{13}$, C_1-C_6 alkyl, C_1-C_6 haloalkyl, C_1-C_6 hydroxyalkyl, C_2-C_6 alkynyl, or C_1-C_6 heteroalkyl; wherein each alkyl and alkynyl is independently optionally substituted with one, two, or three R^{12a} .
83. The compound of any one of claims 51-82, or a pharmaceutically acceptable salt, solvate, stereoisomer, or isotopic variant thereof, wherein:
 R^{12} is hydrogen, C_1-C_6 alkyl, C_1-C_6 hydroxyalkyl, or C_2-C_6 alkynyl; wherein each alkyl and alkynyl is independently optionally substituted with one, two, or three R^{12a} .
84. The compound of any one of claims 51-83, or a pharmaceutically acceptable salt, solvate, stereoisomer, or isotopic variant thereof, wherein:
 R^{12} is hydrogen.
85. The compound of any one of claims 51-84, or a pharmaceutically acceptable salt, solvate, stereoisomer, or isotopic variant thereof, wherein:
 R^{11} is halogen, -CN, $-OR^{13}$, $-NR^{15}R^{16}$, $-S(=O)_2R^{14}$, $-C(=O)OR^{13}$, C_1-C_6 alkyl, C_1-C_6 haloalkyl, C_1-C_6 hydroxyalkyl, C_2-C_6 alkynyl, C_1-C_6 heteroalkyl, cycloalkyl, heterocycloalkyl, aryl, or heteroaryl; wherein each alkyl, alkynyl, cycloalkyl, heterocycloalkyl, aryl, and heteroaryl is independently optionally substituted with one, two, or three R^{11a} .
86. The compound of any one of claims 51-85, or a pharmaceutically acceptable salt, solvate, stereoisomer, or isotopic variant thereof, wherein:

- R^{11} is -CN, -S(=O)₂R¹⁴, -C(=O)OR¹³, C₁-C₆ alkyl, C₁-C₆ haloalkyl, C₁-C₆ hydroxyalkyl, C₂-C₆ alkynyl, or heteroaryl; wherein each alkyl, alkynyl, and heteroaryl is independently optionally substituted with one, two, or three R^{11a}.
87. The compound of any one of claims 51-86, or a pharmaceutically acceptable salt, solvate, stereoisomer, or isotopic variant thereof, wherein:
 R^{11} is C₁-C₆ alkyl optionally substituted with one, two, or three R^{11a}.
88. The compound of any one of claims 51-87, or a pharmaceutically acceptable salt, solvate, stereoisomer, or isotopic variant thereof, wherein:
 R^{11} is C₁-C₆ alkyl substituted with one R^{11a}.
89. The compound of any one of claims 51-88, or a pharmaceutically acceptable salt, solvate, stereoisomer, or isotopic variant thereof, wherein:
each R^{11a} is oxo (when feasible), halogen, -CN, -OR¹³, -SR¹³, -S(=O)R¹⁴, -NR¹⁵R¹⁶, -S(=O)₂R¹⁴, -NR¹³S(=O)₂R¹⁴, -S(=O)₂NR¹⁵R¹⁶, -C(=O)R¹⁴, -C(=O)OR¹³, -C(=O)NR¹⁵R¹⁶, -OC(=O)NR¹⁵R¹⁶, -NR¹³C(=O)R¹⁴, C₁-C₆ alkyl, C₁-C₆ haloalkyl, C₁-C₆ hydroxyalkyl, C₁-C₆ heteroalkyl, cycloalkyl, heterocycloalkyl, aryl, or heteroaryl; wherein each alkyl, cycloalkyl, heterocycloalkyl, aryl, and heteroaryl is independently optionally substituted with one, two, or three R^{11c}.
90. The compound of any one of claims 51-89, or a pharmaceutically acceptable salt, solvate, stereoisomer, or isotopic variant thereof, wherein:
each R^{11a} is independently oxo (when feasible), halogen, -OR¹³, -SR¹³, -NR¹⁵R¹⁶, -S(=O)₂R¹⁴, -NR¹³S(=O)₂R¹⁴, -S(=O)₂NR¹⁵R¹⁶, -C(=O)OR¹³, -OC(=O)NR¹⁵R¹⁶, -NR¹³C(=O)R¹⁴, heterocycloalkyl, aryl, or heteroaryl; wherein each heterocycloalkyl, aryl, and heteroaryl is independently optionally substituted with one, two, or three R^{11c}.
91. The compound of any one of claims 51-90, or a pharmaceutically acceptable salt, solvate, stereoisomer, or isotopic variant thereof, wherein:
each R^{11a} is independently -OR¹³.
92. The compound of any one of claims 51-91, or a pharmaceutically acceptable salt, solvate, stereoisomer, or isotopic variant thereof, wherein:
 R^{11} and R^{12} are taken together to form a cycloalkyl or heterocycloalkyl each optionally substituted with one, two, or three R^{11b}.
93. The compound of any one of claims 51-92, or a pharmaceutically acceptable salt, solvate, stereoisomer, or isotopic variant thereof, wherein:
each R¹³ is independently hydrogen, C₁-C₆ alkyl, C₁-C₆ haloalkyl, C₁-C₆ heteroalkyl, cycloalkyl, heterocycloalkyl, aryl, or heteroaryl; wherein each alkyl, cycloalkyl, heterocycloalkyl, aryl, and heteroaryl is independently optionally substituted with one, two, or three R^{13a}.
94. The compound of any one of claims 51-93, or a pharmaceutically acceptable salt, solvate, stereoisomer, or isotopic variant thereof, wherein:

each R¹³ is independently C₁-C₆ alkyl, C₁-C₆ haloalkyl, or cycloalkyl; wherein each alkyl and cycloalkyl is independently optionally substituted with one, two, or three R^{13a}.

95. The compound of any one of claims 51-94, or a pharmaceutically acceptable salt, solvate, stereoisomer, or isotopic variant thereof, wherein:

each R¹³ is independently C₁-C₆ alkyl.

96. The compound of any one of claims 51-95, or a pharmaceutically acceptable salt, solvate, stereoisomer, or isotopic variant thereof, wherein:

each R¹⁴ is independently C₁-C₆ alkyl.

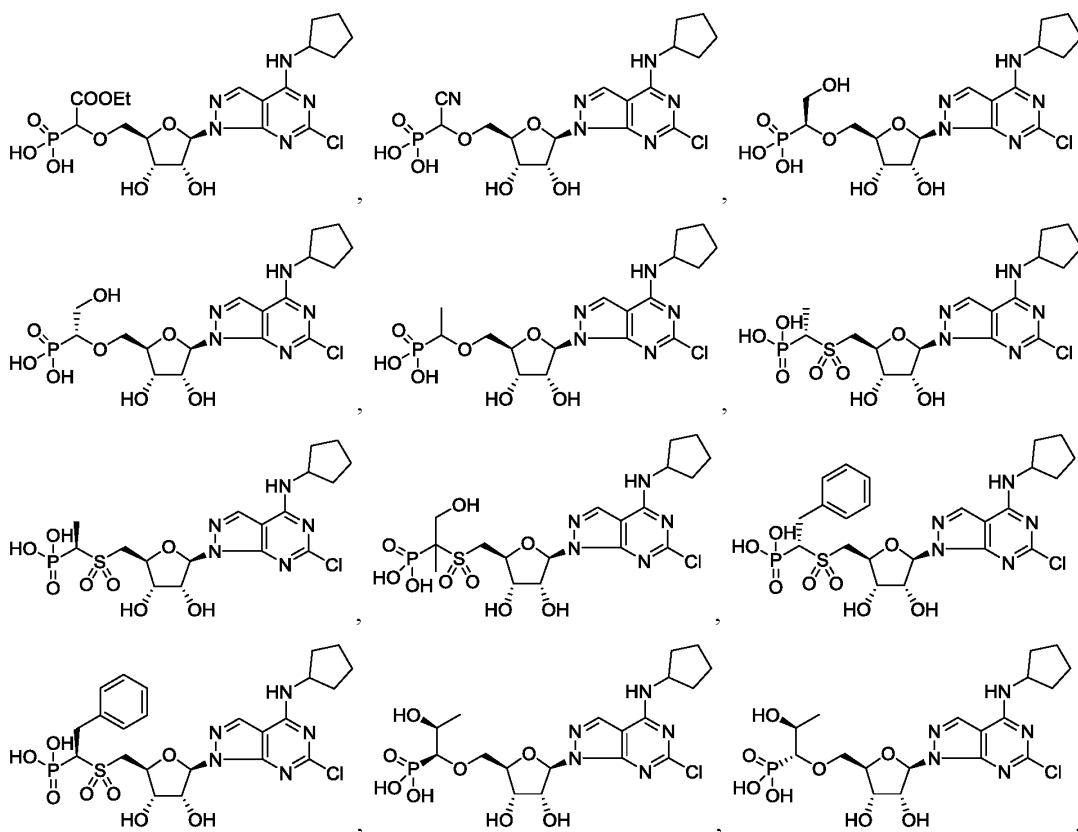
97. The compound of any one of claims 51-96, or a pharmaceutically acceptable salt, solvate, stereoisomer, or isotopic variant thereof, wherein:

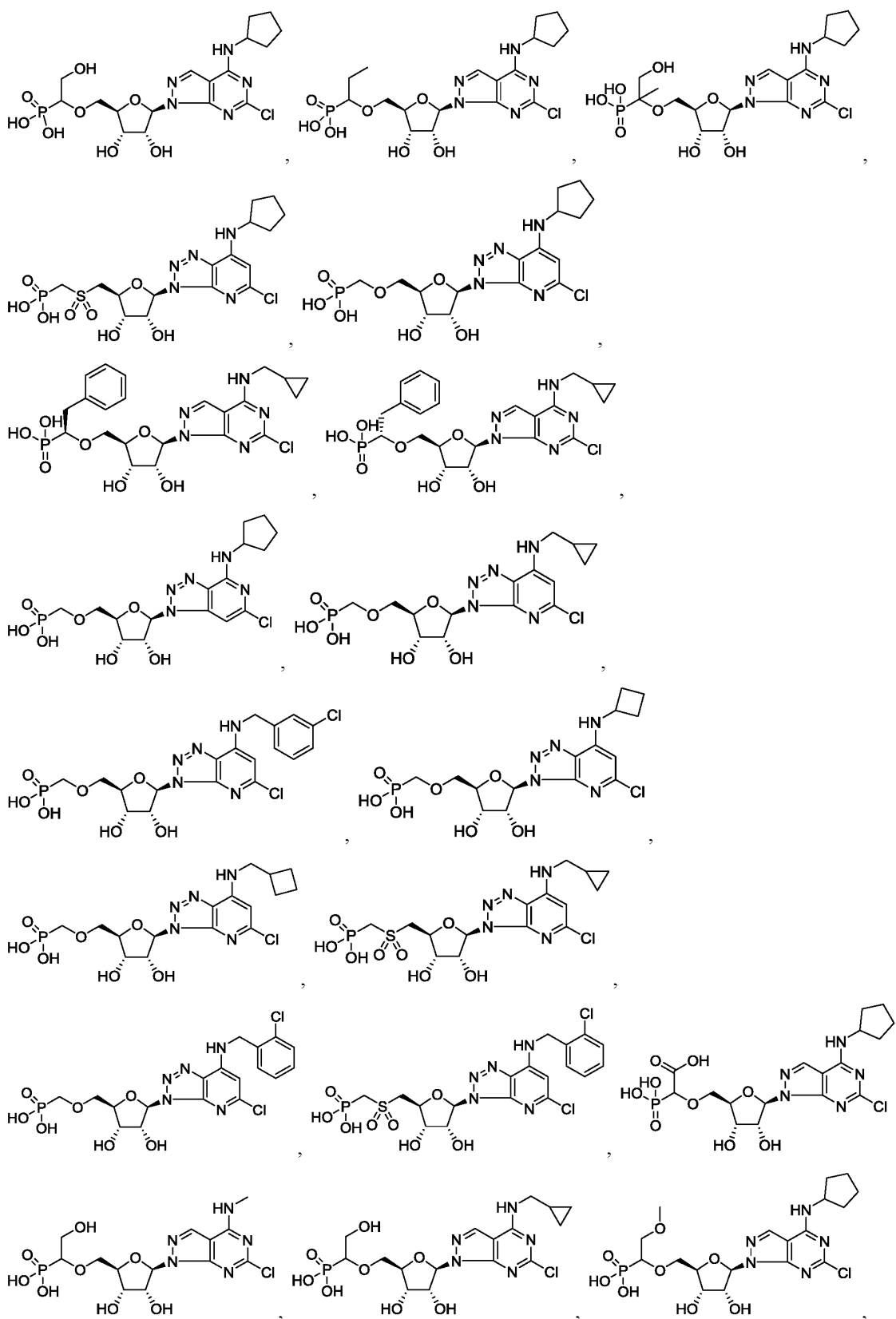
each R¹⁵ and R¹⁶ is independently hydrogen or C₁-C₆ alkyl.

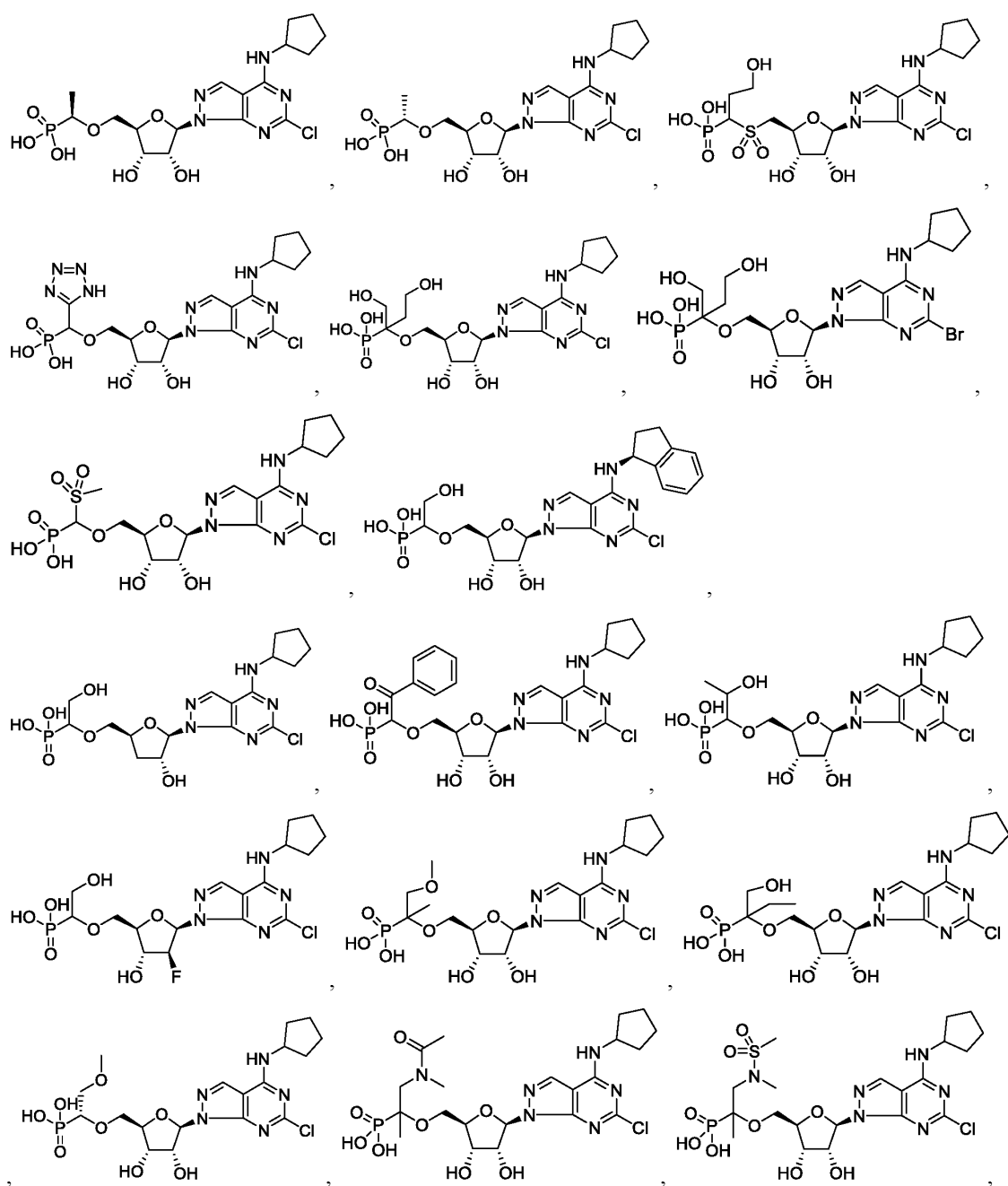
98. The compound of any one of claims 51-97, or a pharmaceutically acceptable salt, solvate, stereoisomer, or isotopic variant thereof, wherein:

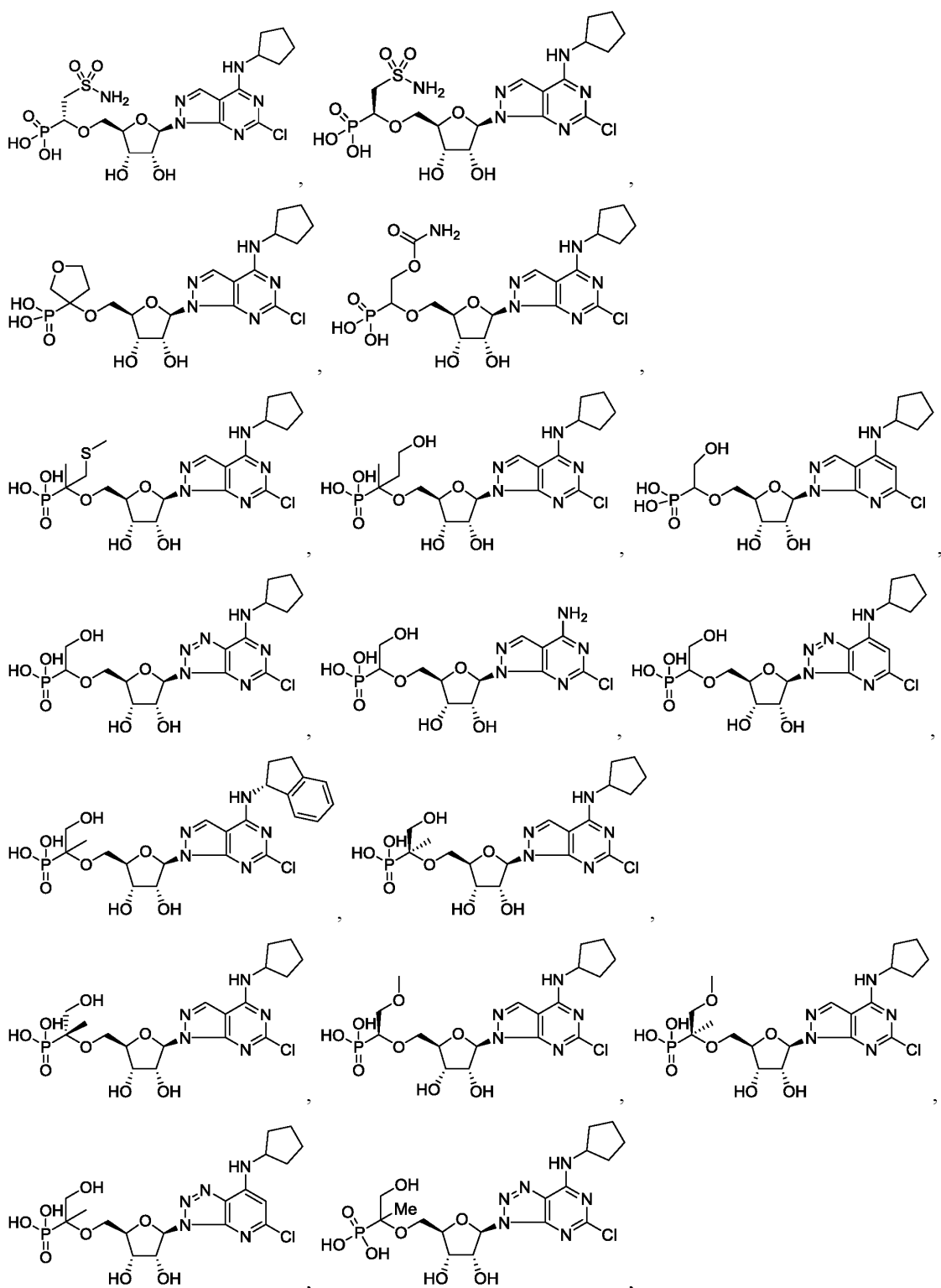
R¹⁵ and R¹⁶ are taken together with the nitrogen atom to which they are attached to form a heterocycloalkyl.

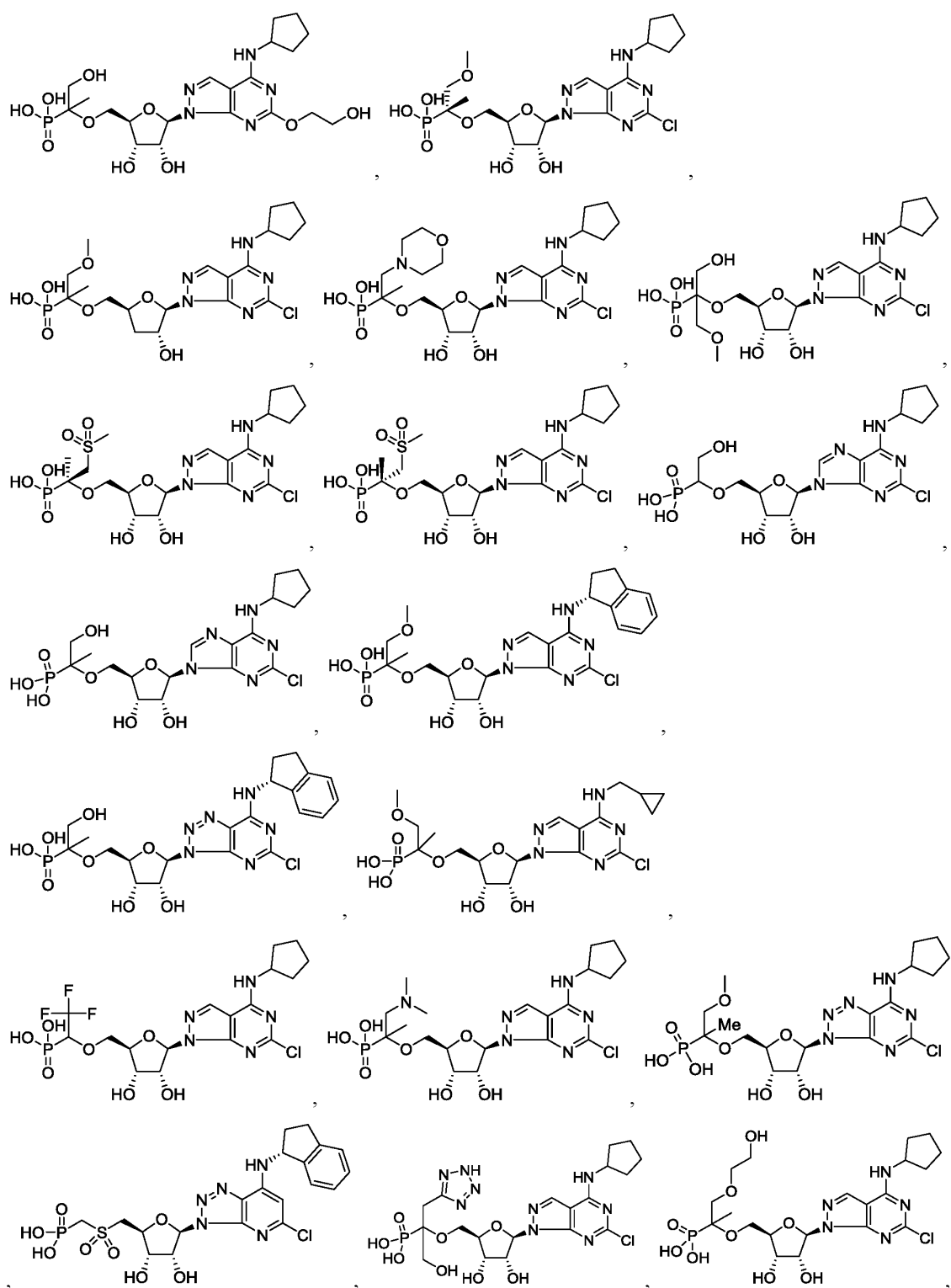
99. A compound selected from the group consisting of:

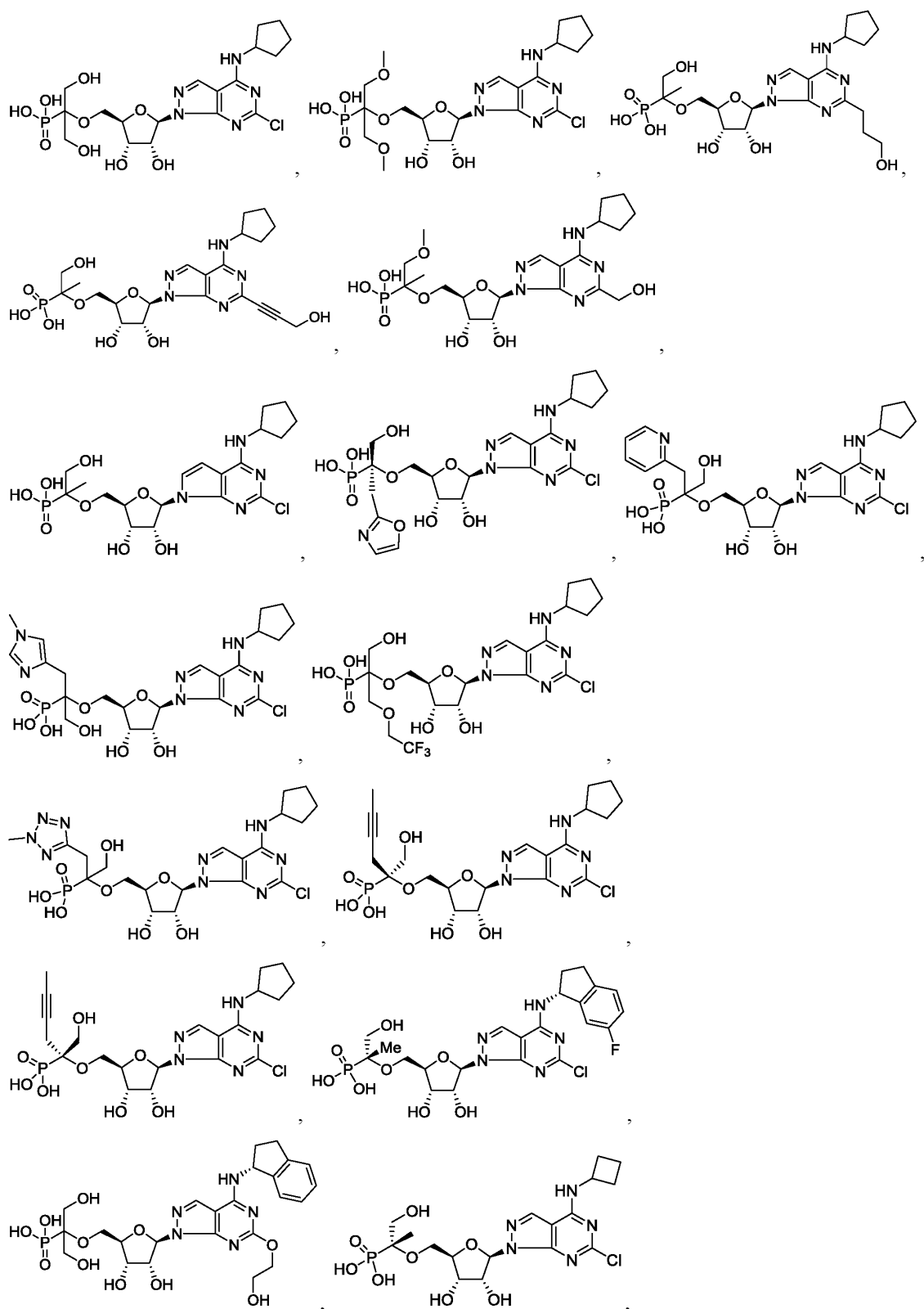




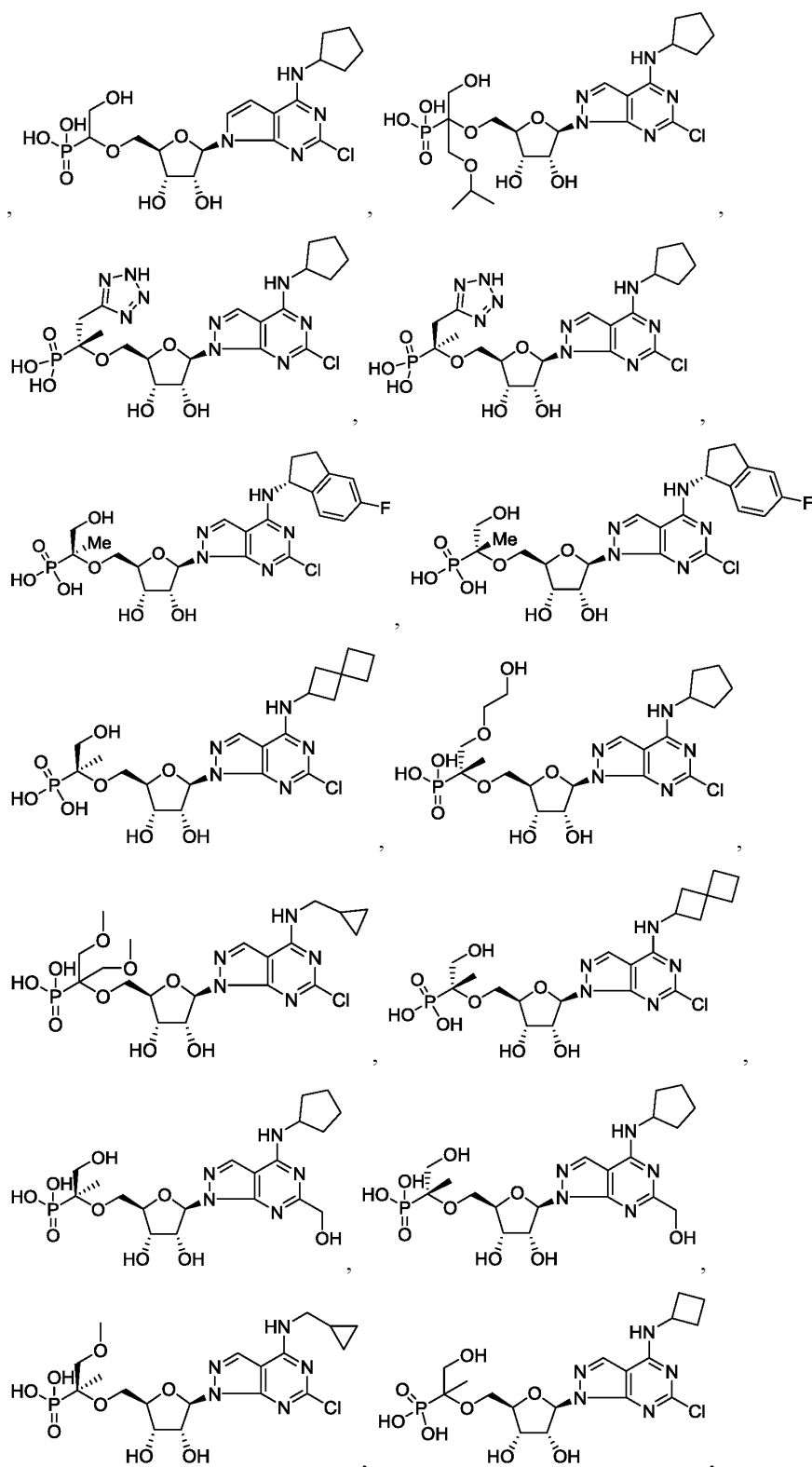


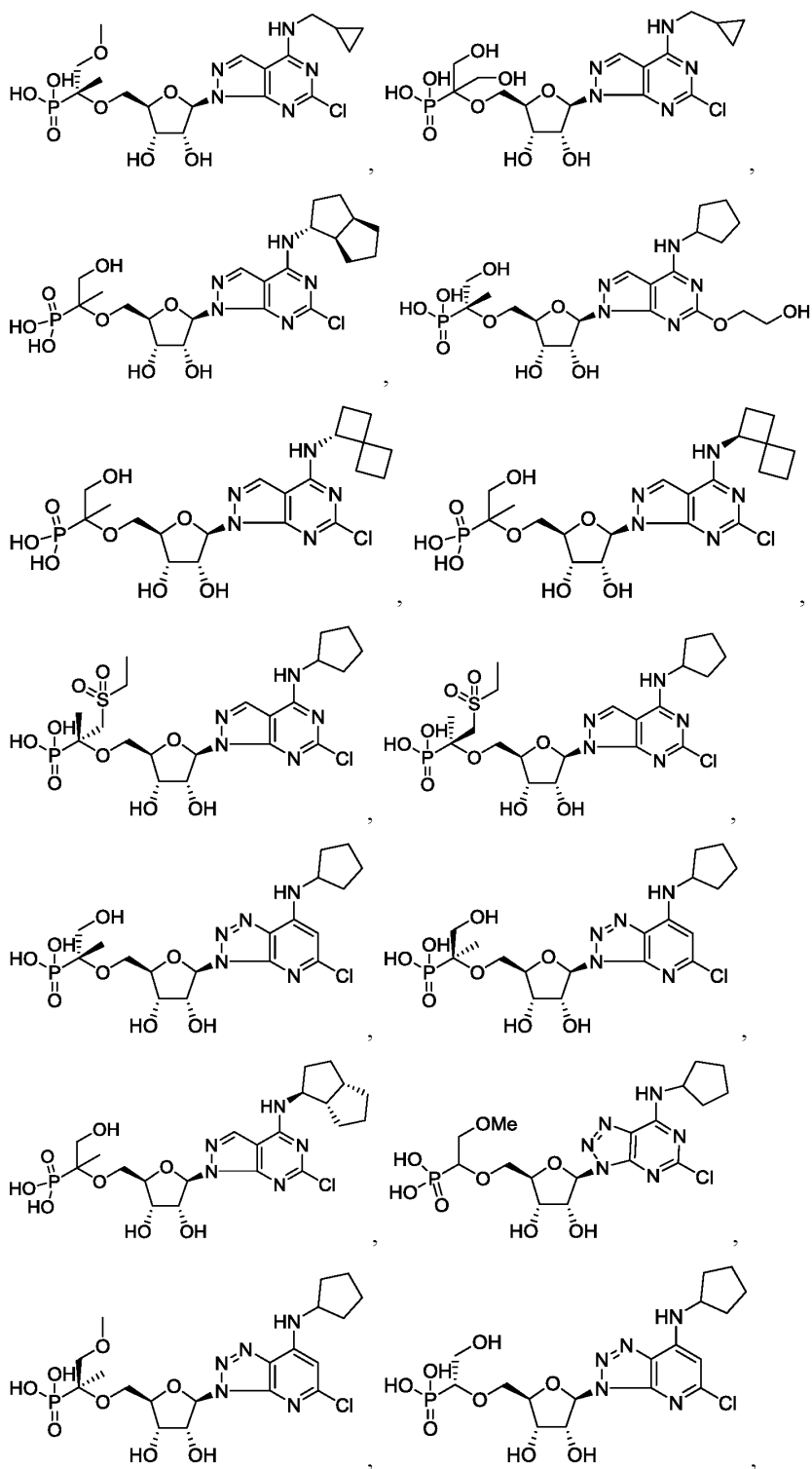




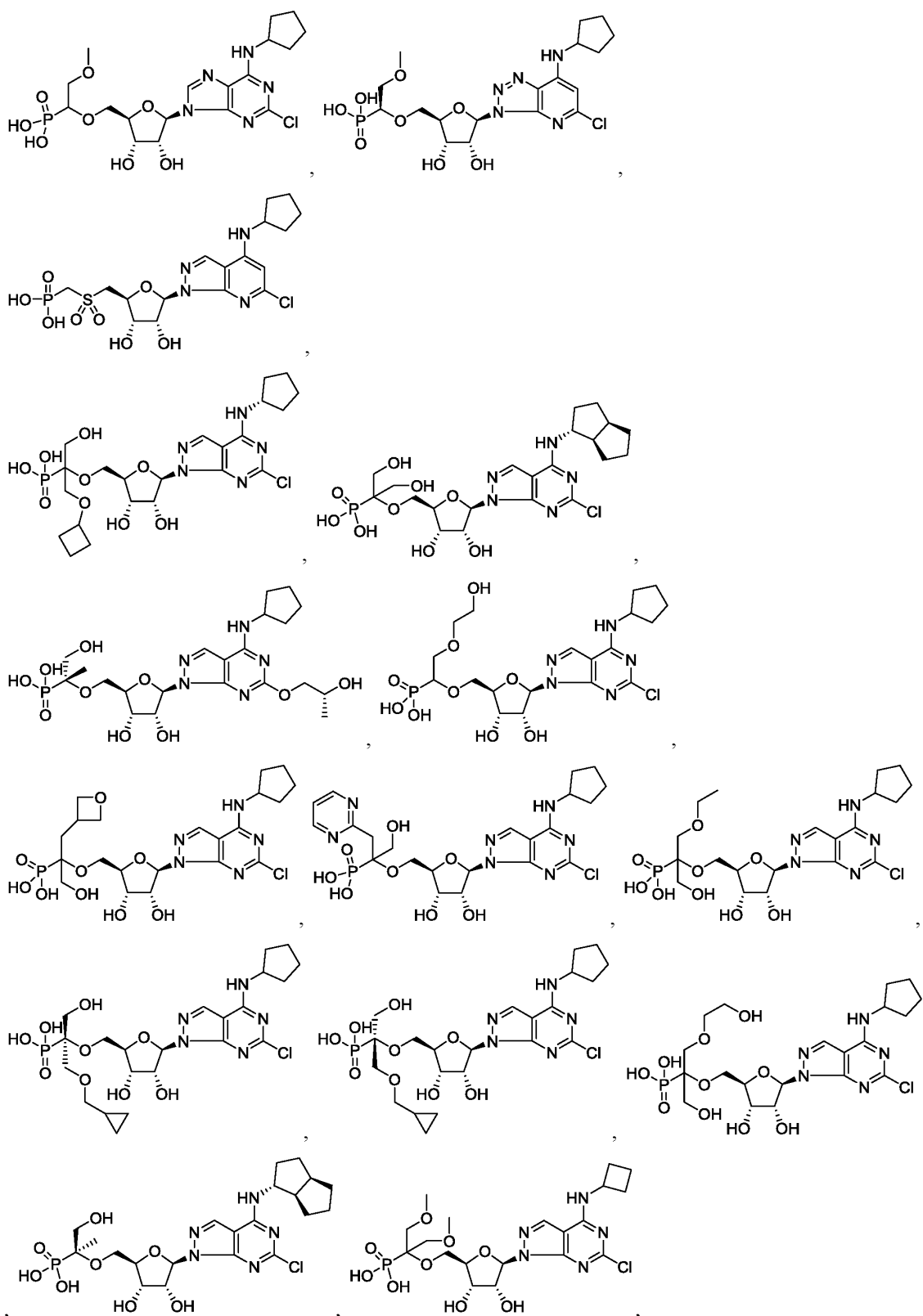


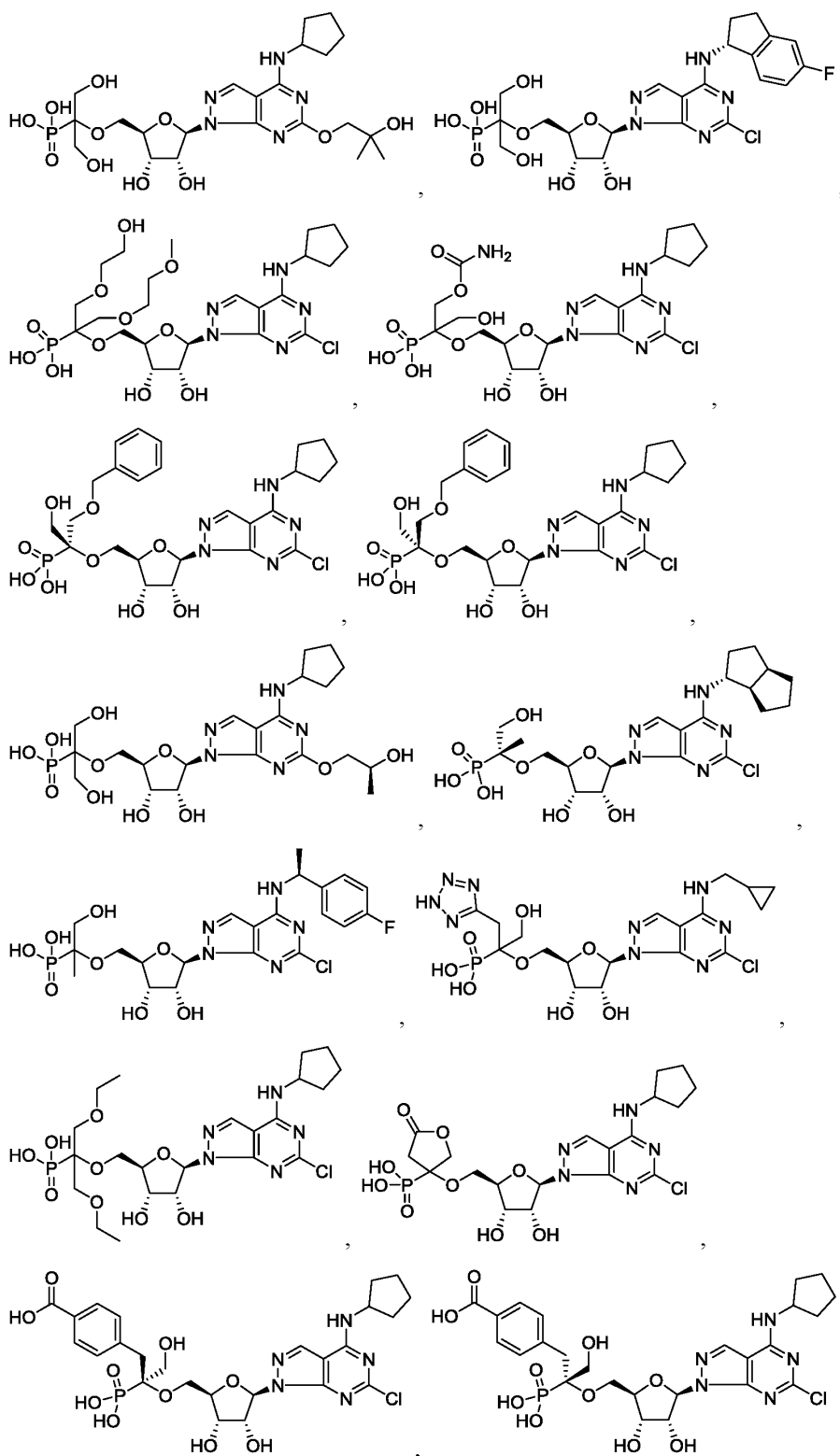


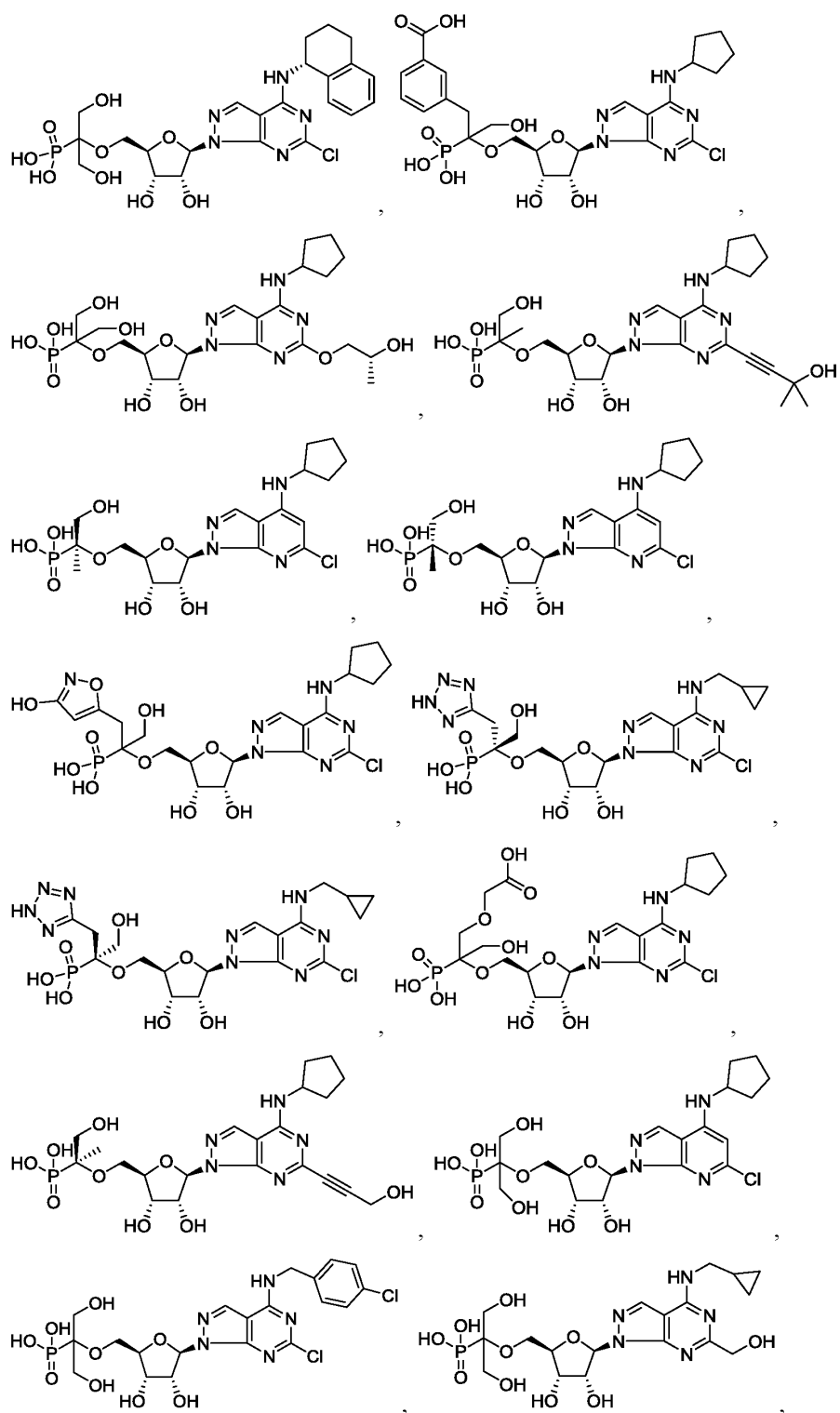


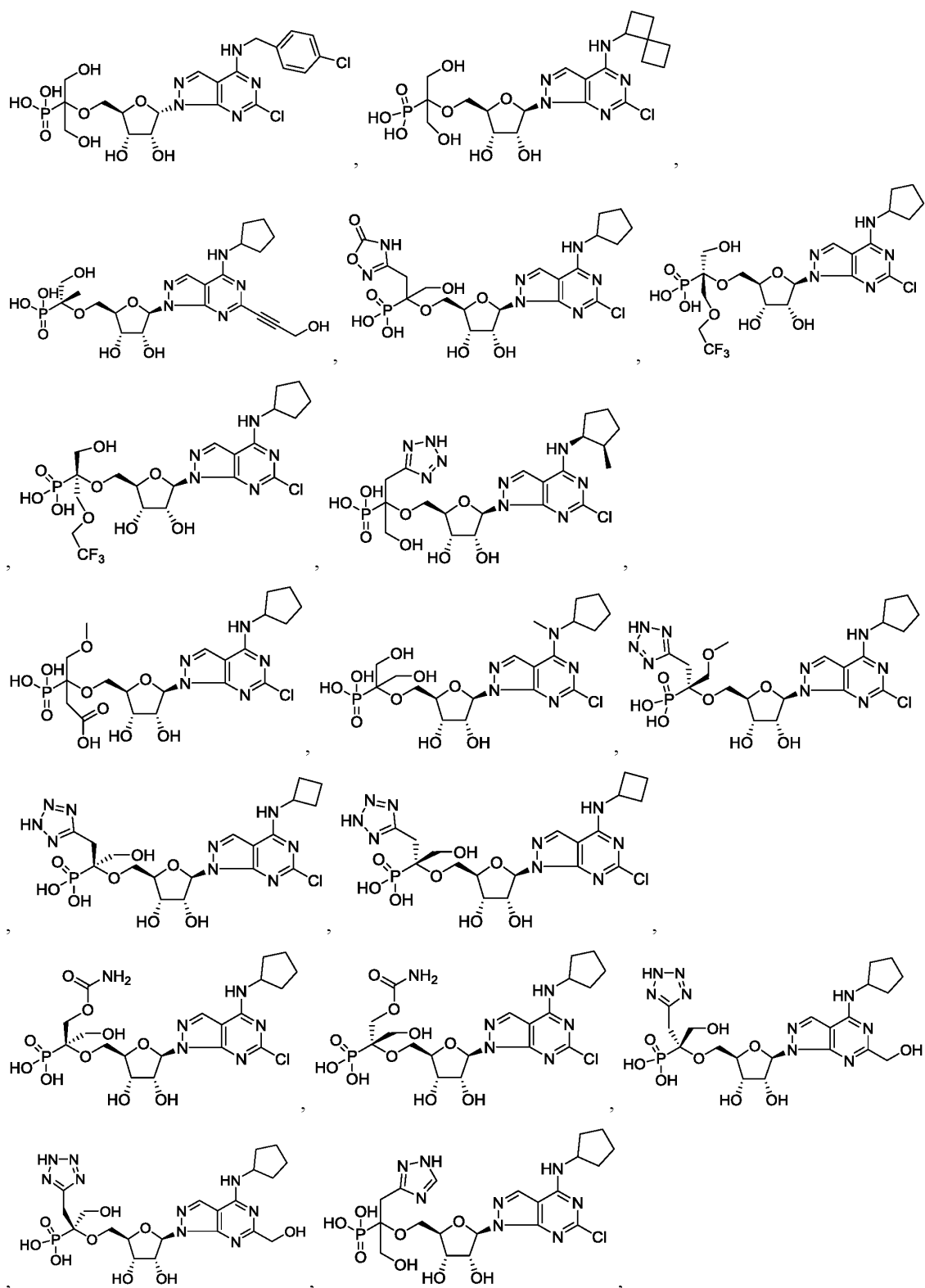


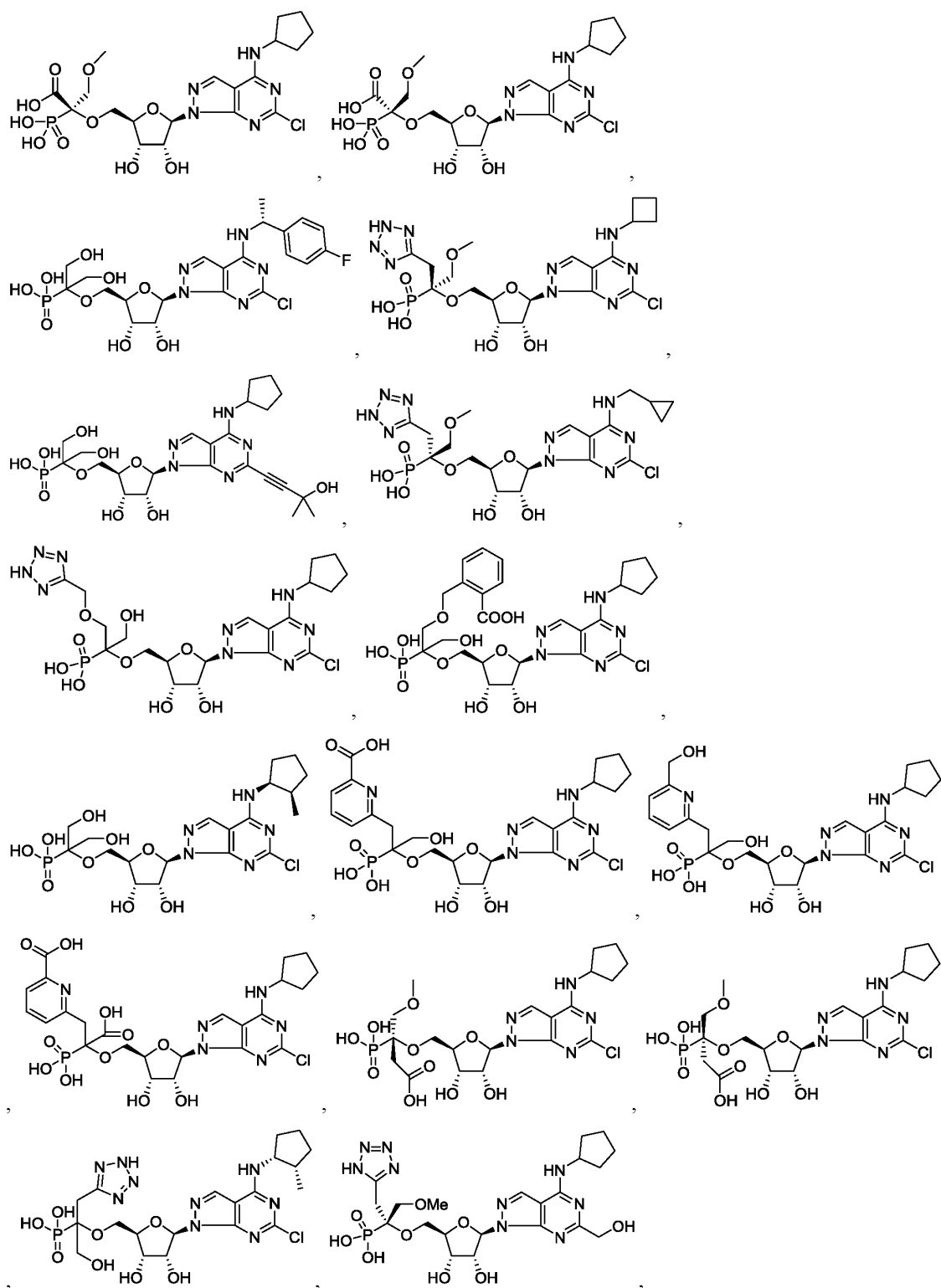


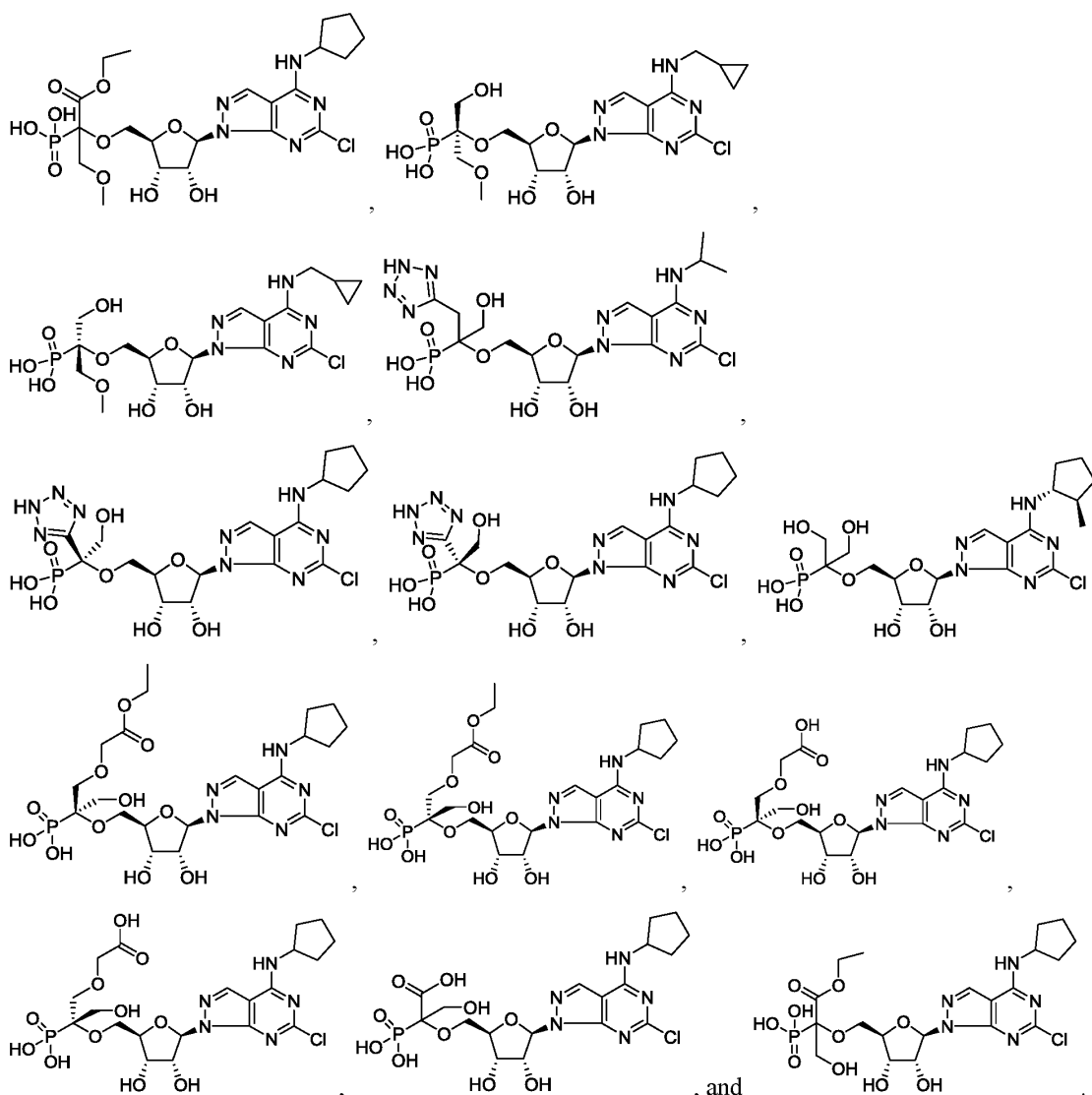












100. A pharmaceutical composition comprising a compound of any one of claims 1-99, or a pharmaceutically acceptable salt, solvate, or stereoisomer thereof, and a pharmaceutically acceptable excipient.
101. A method of inhibiting CD73 comprising contacting CD73 with a compound of any one of claims 1-99, or a pharmaceutically acceptable salt, solvate, or stereoisomer thereof.
102. A method of treating cancer in a subject, comprising administering to the subject a compound of any one of claims 1-99, or a pharmaceutically acceptable salt, solvate, or stereoisomer thereof.
103. A method of treating cancer in a subject, comprising administering to the subject a pharmaceutical composition of claim 100.
104. The method of either of claims 102 or 103, wherein the cancer is lung cancer, melanoma, breast cancer, ovarian cancer, colorectal cancer, gastric cancer, gallbladder cancer, prostate cancer, renal cancer, or a lymphoma.

105. The method of any one of claims 102-104, further comprising administering a second therapeutic agent.
106. The method of claim 105, wherein the second therapeutic agent is a chemotherapeutic agent or an immunotherapy agent.
107. A method of treating an infection in a subject, comprising administering to the subject a compound of any one of claims 1-99, or a pharmaceutically acceptable salt, solvate, or stereoisomer thereof.
108. A method of treating an infection in a subject, comprising administering to the subject a pharmaceutical composition of claim 100.
109. The method of either of claims 107 or 108, wherein the infection is a viral infection.
110. The method of either of claims 107 or 108, wherein the infection is a parasitic infection.
111. A method of treating a neurodegenerative disease in a subject, comprising administering to the subject a compound of any one of claims 1-99, or a pharmaceutically acceptable salt, solvate, or stereoisomer thereof.
112. A method of treating a neurodegenerative disease in a subject, comprising administering to the subject a pharmaceutical composition of claim 100.
113. The method of either of claims 111 or 112, wherein the neurodegenerative disease is Alzheimer's disease, Parkinson's disease, Huntington's disease, schizophrenia, or autism.