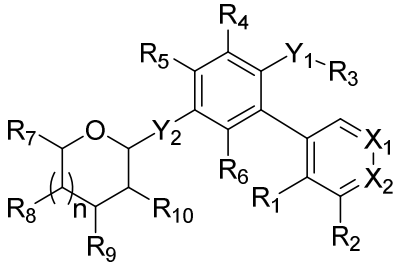
Summary

The present disclosure ~~provides~~ describes biaryl Hsp90 inhibitors with modified ether groups with therapeutic properties, pharmaceutical compositions thereof, methods for their manufacture, and methods for their use. The present disclosure refers to subject matter as defined in the attached set of claims.

In one aspect, the present disclosure refers to a compound of the formula:



(I)

wherein:

n is 0, 1, or 2;

Y_1 is −alkanediyl$_{(C\leq6)}$−, −C(O)−alkanediyl$_{(C\leq6)}$−, or a substituted version of any of these groups;

Y_2 is CH_2, O, or S;

R_1 is hydrogen, amino, halo, hydroxy, carboxy, or alkyl$_{(C\leq6)}$, alkenyl$_{(C\leq6)}$, alkynyl$_{(C\leq6)}$, cycloalkyl$_{(C\leq8)}$, heterocycloalkyl$_{(C\leq8)}$, amido$_{(C\leq6)}$, alkoxy$_{(C\leq6)}$, alkylsulfonyl$_{(C\leq6)}$, or a substituted version of any of these groups;

R_2 is hydrogen, amino, halo, hydroxy, carboxy, or alkyl$_{(C\leq6)}$, alkenyl$_{(C\leq6)}$, alkynyl$_{(C\leq6)}$, cycloalkyl$_{(C\leq8)}$, heterocycloalkyl$_{(C\leq8)}$, aryl$_{(C\leq12)}$, aralkyl$_{(C\leq12)}$, amido$_{(C\leq6)}$, alkoxy$_{(C\leq6)}$, alkylthio$_{(C\leq6)}$, alkylsulfonyl$_{(C\leq6)}$, or a substituted version of any of these groups;

R_2 and R_{15} are taken together and are alkanediyl$_{(C\leq6)}$, alkoxydiyl$_{(C\leq6)}$, alkylaminodiyl$_{(C\leq6)}$, or a substituted version of any of these groups;

R_3 is $–NR_{11}R_{11}'$ or $–C(O)NR_{12}R_{12}'$, wherein:

R_{11} and R_{11}' are each independently hydrogen, alkyl$_{(C\leq6)}$, substituted alkyl$_{(C\leq6)}$, acyl$_{(C\leq6)}$, or substituted acyl$_{(C\leq6)}$;

R_{12} and R_{12}' are each independently hydrogen, alkyl$_{(C\leq6)}$, or substituted alkyl$_{(C\leq6)}$;

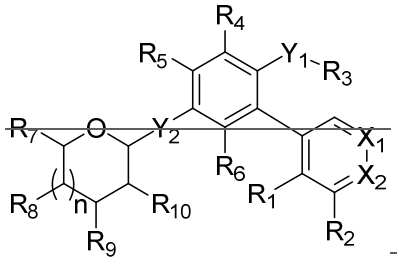
R_4, R_5, and R_6 are each independently hydrogen, halo, alkyl$_{(C\leq6)}$, substituted alkyl$_{(C\leq6)}$, alkoxy$_{(C\leq6)}$, substituted alkoxy$_{(C\leq6)}$, acyloxy$_{(C\leq6)}$, or substituted acyloxy$_{(C\leq6)}$;

R_7 is carboxy or alkyl$_{(C\leq6)}$, alkenyl$_{(C\leq8)}$, alkynyl$_{(C\leq8)}$, cycloalkyl$_{(C\leq8)}$, heterocycloalkyl$_{(C\leq8)}$, aryl$_{(C\leq12)}$, heteroaryl$_{(C\leq12)}$, aralkyl$_{(C\leq12)}$, heteroaralkyl$_{(C\leq12)}$, −alkanediyl$_{(C\leq6)}$−OR_{13}, or a substituted version of any of these groups wherein:

CLAIMS

What is Claimed is:

1. A compound of the formula:



(I)

wherein:

n is 0, 1, or 2;

Y_1 is –alkanediyl$_{(C\leq 6)}$–, –C(O)–alkanediyl$_{(C\leq 6)}$–, or a substituted version of any of these groups;

Y_2 is CH_2, O, or S;

R_1 is hydrogen, amino, halo, hydroxy, carboxy, or alkyl$_{(C\leq 6)}$, alkenyl$_{(C\leq 6)}$, alkynyl$_{(C\leq 6)}$, cycloalkyl$_{(C\leq 8)}$, heterocycloalkyl$_{(C\leq 8)}$, amido$_{(C\leq 6)}$, alkoxy$_{(C\leq 6)}$, alkylsulfonyl$_{(C\leq 6)}$, or a substituted version of any of these groups;

R_2 is hydrogen, amino, halo, hydroxy, carboxy, or alkyl$_{(C\leq 6)}$, alkenyl$_{(C\leq 6)}$, alkynyl$_{(C\leq 6)}$, cycloalkyl$_{(C\leq 8)}$, heterocycloalkyl$_{(C\leq 8)}$, aryl$_{(C\leq 12)}$, aralkyl$_{(C\leq 12)}$, amido$_{(C\leq 6)}$, alkoxy$_{(C\leq 6)}$, alkylthio$_{(C\leq 6)}$, alkylsulfonyl$_{(C\leq 6)}$, or a substituted version of any of these groups;

R_2 and R_{15} are taken together and are alkanediyl$_{(C\leq 6)}$, alkoxydiyl$_{(C\leq 6)}$, alkylaminodiyl$_{(C\leq 6)}$, or a substituted version of any of these groups;

R_3 is $NR_{11}R_{11}'$ or $C(O)NR_{12}R_{12}'$, wherein:

R_{11} and R_{11}' are each independently hydrogen, alkyl$_{(C\leq 6)}$, substituted alkyl$_{(C\leq 6)}$, acyl$_{(C\leq 6)}$, or substituted acyl$_{(C\leq 6)}$;

R_{12} and R_{12}' are each independently hydrogen, alkyl$_{(C\leq 6)}$, or substituted alkyl$_{(C\leq 6)}$;

R_4, R_5, and R_6 are each independently hydrogen, halo, alkyl$_{(C\leq 6)}$, substituted alkyl$_{(C\leq 6)}$, alkoxy$_{(C\leq 6)}$, substituted alkoxy$_{(C\leq 6)}$, acyloxy$_{(C\leq 6)}$, or substituted acyloxy$_{(C\leq 6)}$;

R_7 is carboxy or $alkyl_{(C\leq6)}$, $alkenyl_{(C\leq8)}$, $alkynyl_{(C\leq8)}$, $cycloalkyl_{(C\leq8)}$, $heterocycloalkyl_{(C\leq8)}$, $aryl_{(C\leq12)}$, $heteroaryl_{(C\leq12)}$, $aralkyl_{(C\leq12)}$, $heteroaralkyl_{(C\leq12)}$, $alkanediyl_{(C\leq6)}$-OR_{13}, or a substituted version of any of these groups wherein:

R_{13} is $alkyl_{(C\leq12)}$, substituted $alkyl_{(C\leq12)}$, $aralkyl_{(C\leq12)}$, or substituted $aralkyl_{(C\leq12)}$;

R_8, R_9, and R_{10} are each independently hydrogen, halo, hydroxy, or $alkyl_{(C\leq6)}$, $alkoxy_{(C\leq6)}$, $acyl_{(C\leq6)}$, $acyloxy_{(C\leq6)}$, $aralkyl_{(C\leq12)}$, $aralkoxy_{(C\leq12)}$, or a substituted version of any of these groups;

X_1 is CR_{14} or N, wherein:

R_{14} is hydrogen, halo, hydroxy, or $alkyl_{(C\leq6)}$, $alkenyl_{(C\leq6)}$, $alkynyl_{(C\leq6)}$, $alkoxy_{(C\leq6)}$, $alkylamino_{(C\leq6)}$, -$alkanediyl_{(C\leq6)}$-$heterocycloalkyl_{(C\leq8)}$, or a substituted version of any of these groups; or

R_{14} and R_{15} are taken together and are $alkanediyl_{(C\leq6)}$, $alkenediyl_{(C\leq6)}$, $alkoxydiyl_{(C\leq6)}$, $alkylaminodiyl_{(C\leq6)}$, or a substituted version of any of these groups; and

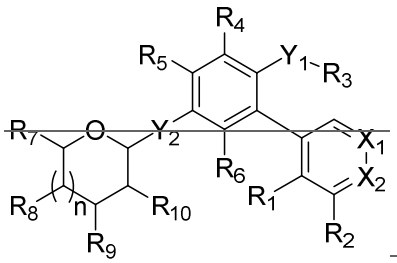
X_2 is CR_{15} or N, wherein:

R_{15} is hydrogen, halo, hydroxy, or $alkyl_{(C\leq6)}$, $alkenyl_{(C\leq6)}$, $alkynyl_{(C\leq6)}$, $alkoxy_{(C\leq6)}$, $alkylamino_{(C\leq6)}$, -$alkanediyl_{(C\leq6)}$-$heterocycloalkyl_{(C\leq8)}$, or a substituted version of any of these groups;

R_{15} and R_{14} are taken together and are $alkanediyl_{(C\leq6)}$, $alkenediyl_{(C\leq6)}$, $alkoxydiyl_{(C\leq6)}$, $alkylaminodiyl_{(C\leq6)}$, or a substituted version of any of these groups; or

R_{15} and R_2 are taken together and are $alkanediyl_{(C\leq6)}$, $alkoxydiyl_{(C\leq6)}$, $alkylaminodiyl_{(C\leq6)}$, or a substituted version of any of these groups;

or a compound of the formula:



(I)

wherein:

n is 0, 1, or 2;

Y_1 is –alkanediyl$_{(C\leq6)}$–, –C(O)–alkanediyl$_{(C\leq6)}$–, or a substituted version of any of these groups;

Y_2 is CH_2, O, or S;

R_1 is hydrogen, amino, halo, hydroxy, carboxy, or alkyl$_{(C\leq6)}$, alkenyl$_{(C\leq6)}$, alkynyl$_{(C\leq6)}$, cycloalkyl$_{(C\leq8)}$, heterocycloalkyl$_{(C\leq8)}$, amido$_{(C\leq6)}$, alkoxy$_{(C\leq6)}$, alkylsulfonyl$_{(C\leq6)}$, or a substituted version of any of these groups;

R_2 is hydrogen, amino, halo, hydroxy, carboxy, or alkyl$_{(C\leq6)}$, alkenyl$_{(C\leq6)}$, alkynyl$_{(C\leq6)}$, cycloalkyl$_{(C\leq8)}$, heterocycloalkyl$_{(C\leq8)}$, aryl$_{(C\leq12)}$, aralkyl$_{(C\leq12)}$, amido$_{(C\leq6)}$, alkoxy$_{(C\leq6)}$, alkylthio$_{(C\leq6)}$, alkylsulfonyl$_{(C\leq6)}$, or a substituted version of any of these groups;

R_2 and R_{15} are taken together and are alkanediyl$_{(C\leq6)}$, alkoxydiyl$_{(C\leq6)}$, alkylaminodiyl$_{(C\leq6)}$, or a substituted version of any of these groups;

R_3 is $NR_{11}R_{11}'$ or $C(O)NR_{12}R_{12}'$, wherein:

R_{11} and R_{11}' are each independently hydrogen, alkyl$_{(C\leq6)}$, substituted alkyl$_{(C\leq6)}$, acyl$_{(C\leq6)}$, or substituted acyl$_{(C\leq6)}$;

R_{12} and R_{12}' are each independently hydrogen, alkyl$_{(C\leq6)}$, or substituted alkyl$_{(C\leq6)}$;

R_4, R_5, and R_6 are each independently hydrogen, halo, alkyl$_{(C\leq6)}$, substituted alkyl$_{(C\leq6)}$, alkoxy$_{(C\leq6)}$, substituted alkoxy$_{(C\leq6)}$, acyloxy$_{(C\leq6)}$, or substituted acyloxy$_{(C\leq6)}$;

R_7 is hydrogen, carboxy or alkyl$_{(C\leq6)}$, alkenyl$_{(C\leq8)}$, alkynyl$_{(C\leq8)}$, cycloalkyl$_{(C\leq8)}$, heterocycloalkyl$_{(C\leq8)}$, aryl$_{(C\leq12)}$, heteroaryl$_{(C\leq12)}$, aralkyl$_{(C\leq12)}$, heteroaralkyl$_{(C\leq12)}$, –alkanediyl$_{(C\leq6)}$–OR_{13}, or a substituted version of any of these groups wherein:

R_{13} is alkyl$_{(C\leq12)}$, substituted alkyl$_{(C\leq12)}$, aralkyl$_{(C\leq12)}$, or substituted aralkyl$_{(C\leq12)}$;

R_8 and R_9 are each independently hydrogen, halo, hydroxy, or alkyl$_{(C\leq6)}$, alkoxy$_{(C\leq6)}$, acyl$_{(C\leq6)}$, acyloxy$_{(C\leq6)}$, aralkyl$_{(C\leq12)}$, aralkoxy$_{(C\leq12)}$, or a substituted version of any of these groups;

R_{10} is amino or alkylamino$_{(C\leq6)}$, dialkylamino$_{(C\leq12)}$, amido$_{(C\leq12)}$, or a substituted version of any of these three groups;

X_1 is CR_{14} or N, wherein:

R_{14} is hydrogen, halo, hydroxy, or alkyl$_{(C\leq 6)}$, alkenyl$_{(C\leq 6)}$, alkynyl$_{(C\leq 6)}$, alkoxy$_{(C\leq 6)}$, alkylamino$_{(C\leq 6)}$, –alkanediyl$_{(C\leq 6)}$–heterocycloalkyl$_{(C\leq 8)}$, or a substituted version of any of these groups; or

R_{14} and R_{15} are taken together and are alkanediyl$_{(C\leq 6)}$, alkenediyl$_{(C\leq 6)}$, alkoxydiyl$_{(C\leq 6)}$, alkylaminodiyl$_{(C\leq 6)}$, or a substituted version of any of these groups; and

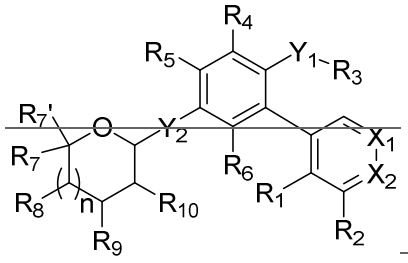
X_2 is CR_{15} or N, wherein:

R_{15} is hydrogen, halo, hydroxy, or alkyl$_{(C\leq 6)}$, alkenyl$_{(C\leq 6)}$, alkynyl$_{(C\leq 6)}$, alkoxy$_{(C\leq 6)}$, alkylamino$_{(C\leq 6)}$, –alkanediyl$_{(C\leq 6)}$–heterocycloalkyl$_{(C\leq 8)}$, or a substituted version of any of these groups;

R_{15} and R_{14} are taken together and are alkanediyl$_{(C\leq 6)}$, alkenediyl$_{(C\leq 6)}$, alkoxydiyl$_{(C\leq 6)}$, alkylaminodiyl$_{(C\leq 6)}$, or a substituted version of any of these groups; or

R_{15} and R_2 are taken together and are alkanediyl$_{(C\leq 6)}$, alkoxydiyl$_{(C\leq 6)}$, alkylaminodiyl$_{(C\leq 6)}$, or a substituted version of any of these groups;

or a compound of the formula:



(II)

wherein:

n is 0, 1, or 2;

Y_1 is –alkanediyl$_{(C\leq 6)}$–, –C(O)–alkanediyl$_{(C\leq 6)}$–, or a substituted version of any of these groups;

Y_2 is CH_2, O, or S;

R_1 is hydrogen, amino, halo, hydroxy, carboxy, or alkyl$_{(C\leq 6)}$, alkenyl$_{(C\leq 6)}$, alkynyl$_{(C\leq 6)}$, cycloalkyl$_{(C\leq 8)}$, heterocycloalkyl$_{(C\leq 8)}$, amido$_{(C\leq 6)}$, alkoxy$_{(C\leq 6)}$, alkylsulfonyl$_{(C\leq 6)}$, or a substituted version of any of these groups;

R_2 is hydrogen, amino, halo, hydroxy, carboxy, or alkyl$_{(C\leq 6)}$, alkenyl$_{(C\leq 6)}$, alkynyl$_{(C\leq 6)}$, cycloalkyl$_{(C\leq 8)}$, heterocycloalkyl$_{(C\leq 8)}$, aryl$_{(C\leq 12)}$, aralkyl$_{(C\leq 12)}$,

amido$_{(C\leq6)}$, alkoxy$_{(C\leq6)}$, alkylthio$_{(C\leq6)}$, alkylsulfonyl$_{(C\leq6)}$, or a substituted version of any of these groups;

R_2 and R_{15} are taken together and are alkanediyl$_{(C\leq6)}$, alkoxydiyl$_{(C\leq6)}$, alkylaminodiyl$_{(C\leq6)}$, or a substituted version of any of these groups;

R_3 is $NR_{11}R_{11}'$ or $C(O)NR_{12}R_{12}'$, wherein:

R_{11} and R_{11}' are each independently hydrogen, alkyl$_{(C\leq6)}$, substituted alkyl$_{(C\leq6)}$, acyl$_{(C\leq6)}$, or substituted acyl$_{(C\leq6)}$;

R_{12} and R_{12}' are each independently hydrogen, alkyl$_{(C\leq6)}$, or substituted alkyl$_{(C\leq6)}$;

R_4, R_5, and R_6 are each independently hydrogen, halo, alkyl$_{(C\leq6)}$, substituted alkyl$_{(C\leq6)}$, alkoxy$_{(C\leq6)}$, substituted alkoxy$_{(C\leq6)}$, acyloxy$_{(C\leq6)}$, or substituted acyloxy$_{(C\leq6)}$;

R_7 is carboxy or alkyl$_{(C3-8)}$, alkenyl$_{(C\leq8)}$, alkynyl$_{(C\leq8)}$, cycloalkyl$_{(C\leq8)}$, heterocycloalkyl$_{(C\leq8)}$, aryl$_{(C\leq12)}$, heteroaryl$_{(C\leq12)}$, aralkyl$_{(C\leq12)}$, heteroaralkyl$_{(C\leq12)}$, alkanediyl$_{(C\leq6)}$-OR_{13}, or a substituted version of any of these groups wherein:

R_{13} is aralkyl$_{(C\leq12)}$ or substituted aralkyl$_{(C\leq12)}$;

R_7' is hydrogen, carboxy, or alkyl$_{(C3-8)}$, alkenyl$_{(C\leq8)}$, alkynyl$_{(C\leq8)}$, cycloalkyl$_{(C\leq8)}$, heterocycloalkyl$_{(C\leq8)}$, aryl$_{(C\leq12)}$, heteroaryl$_{(C\leq12)}$, aralkyl$_{(C\leq12)}$, heteroaralkyl$_{(C\leq12)}$, alkanediyl$_{(C\leq6)}$-OR_{13}, or a substituted version of any of these groups wherein:

R_{13} is aralkyl$_{(C\leq12)}$ or substituted aralkyl$_{(C\leq12)}$; or

R_7 and R_7' are taken together and are –alkanediyl$_{(C\leq7)}$–, –alkenediyl$_{(C\leq7)}$–, or a substituted version of either of these groups;

R_8, R_9, and R_{10} are each independently hydrogen, halo, hydroxy, or alkyl$_{(C\leq6)}$, alkoxy$_{(C\leq6)}$, acyl$_{(C\leq6)}$, acyloxy$_{(C\leq6)}$, aralkyl$_{(C\leq12)}$, aralkoxy$_{(C\leq12)}$, or a substituted version of any of these groups;

X_1 is CR_{14} or N, wherein:

R_{14} is hydrogen, halo, hydroxy, or alkyl$_{(C\leq6)}$, alkenyl$_{(C\leq6)}$, alkynyl$_{(C\leq6)}$, alkoxy$_{(C\leq6)}$, alkylamino$_{(C\leq6)}$, –alkanediyl$_{(C\leq6)}$-heterocycloalkyl$_{(C\leq8)}$, or a substituted version of any of these groups; or

R_{14} and R_{15} are taken together and are alkanediyl$_{(C\leq6)}$, alkenediyl$_{(C\leq6)}$, alkoxydiyl$_{(C\leq6)}$, alkylaminodiyl$_{(C\leq6)}$, or a substituted version of any of these groups; and

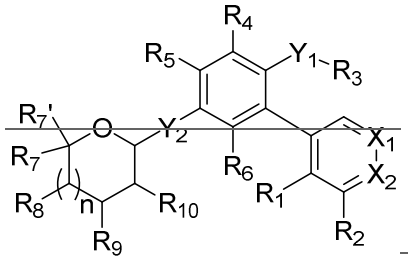
~~X_2 is CR_{15} or N, wherein:~~

~~R_{15} is hydrogen, halo, hydroxy, or alkyl$_{(C\leq6)}$, alkenyl$_{(C\leq6)}$, alkynyl$_{(C\leq6)}$, alkoxy$_{(C\leq6)}$, alkylamino$_{(C\leq6)}$, alkanediyl$_{(C\leq6)}$ heterocycloalkyl$_{(C\leq8)}$, or a substituted version of any of these groups;~~

~~R_{15} and R_{14} are taken together and are alkanediyl$_{(C\leq6)}$, alkenediyl$_{(C\leq6)}$, alkoxydiyl$_{(C\leq6)}$, alkylaminodiyl$_{(C\leq6)}$, or a substituted version of any of these groups; or~~

~~R_{15} and R_2 are taken together and are alkanediyl$_{(C\leq6)}$, alkoxydiyl$_{(C\leq6)}$, alkylaminodiyl$_{(C\leq6)}$, or a substituted version of any of these groups;~~

~~or a compound of the formula:~~



~~(II)~~

~~wherein:~~

~~n is 0, 1, or 2;~~

~~Y_1 is –alkanediyl$_{(C\leq6)}$–, –C(O)–alkanediyl$_{(C\leq6)}$–, or a substituted version of any of these groups;~~

~~Y_2 is CH_2 or S;~~

~~R_1 is hydrogen, amino, halo, hydroxy, carboxy, or alkyl$_{(C\leq6)}$, alkenyl$_{(C\leq6)}$, alkynyl$_{(C\leq6)}$, cycloalkyl$_{(C\leq8)}$, heterocycloalkyl$_{(C\leq8)}$, amido$_{(C\leq6)}$, alkoxy$_{(C\leq6)}$, alkylsulfonyl$_{(C\leq6)}$, or a substituted version of any of these groups;~~

~~R_2 is hydrogen, amino, halo, hydroxy, carboxy, or alkyl$_{(C\leq6)}$, alkenyl$_{(C\leq6)}$, alkynyl$_{(C\leq6)}$, cycloalkyl$_{(C\leq8)}$, heterocycloalkyl$_{(C\leq8)}$, aryl$_{(C\leq12)}$, aralkyl$_{(C\leq12)}$, amido$_{(C\leq6)}$, alkoxy$_{(C\leq6)}$, alkylthio$_{(C\leq6)}$, alkylsulfonyl$_{(C\leq6)}$, or a substituted version of any of these groups;~~

~~R_2 and R_{15} are taken together and are alkanediyl$_{(C\leq6)}$, alkoxydiyl$_{(C\leq6)}$, alkylaminodiyl$_{(C\leq6)}$, or a substituted version of any of these groups;~~

~~R_3 is $-NR_{11}R_{11}'$ or $-C(O)NR_{12}R_{12}'$, wherein:~~

R_{11} and R_{11}' are each independently hydrogen, $alkyl_{(C\leq6)}$, $substituted\ alkyl_{(C\leq6)}$, $acyl_{(C\leq6)}$, or $substituted\ acyl_{(C\leq6)}$;

R_{12} and R_{12}' are each independently hydrogen, $alkyl_{(C\leq6)}$, or $substituted\ alkyl_{(C\leq6)}$;

R_4, R_5, and R_6 are each independently hydrogen, halo, $alkyl_{(C\leq6)}$, $substituted\ alkyl_{(C\leq6)}$, $alkoxy_{(C\leq6)}$, $substituted\ alkoxy_{(C\leq6)}$, $acyloxy_{(C\leq6)}$, or $substituted\ acyloxy_{(C\leq6)}$;

R_7 and R_7' are each independently hydrogen, carboxy, or $alkyl_{(C\leq8)}$, $alkenyl_{(C\leq8)}$, $alkynyl_{(C\leq8)}$, $cycloalkyl_{(C\leq8)}$, $heterocycloalkyl_{(C\leq8)}$, $aryl_{(C\leq12)}$, $heteroaryl_{(C\leq12)}$, $aralkyl_{(C\leq12)}$, $heteroaralkyl_{(C\leq12)}$, $-alkanediyl_{(C\leq6)}-OR_{13}$, or a substituted version of any of these groups wherein:

R_{13} is $aralkyl_{(C\leq12)}$ or $substituted\ aralkyl_{(C\leq12)}$;

R_7 and R_7' are taken together and are $-alkanediyl_{(C\leq7)}-$, $-alkenediyl_{(C\leq7)}-$, or a substituted version of either of these groups;

R_8, R_9, and R_{10} are each independently hydrogen, halo, hydroxy, or $alkyl_{(C\leq6)}$, $alkoxy_{(C\leq6)}$, $acyl_{(C\leq6)}$, $acyloxy_{(C\leq6)}$, $aralkyl_{(C\leq12)}$, $aralkoxy_{(C\leq12)}$, or a substituted version of any of these groups;

X_1 is CR_{14} or N, wherein:

R_{14} is hydrogen, halo, hydroxy, or $alkyl_{(C\leq6)}$, $alkenyl_{(C\leq6)}$, $alkynyl_{(C\leq6)}$, $alkoxy_{(C\leq6)}$, $alkylamino_{(C\leq6)}$, $-alkanediyl_{(C\leq6)}-heterocycloalkyl_{(C\leq8)}$, or a substituted version of any of these groups; or

R_{14} and R_{15} are taken together and are $alkanediyl_{(C\leq6)}$, $alkenediyl_{(C\leq6)}$, $alkoxydiyl_{(C\leq6)}$, $alkylaminodiyl_{(C\leq6)}$, or a substituted version of any of these groups; and

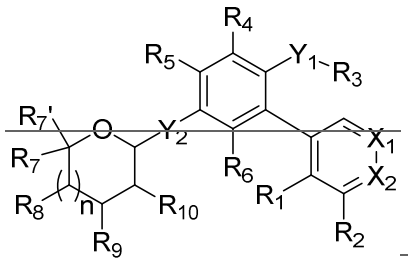
X_2 is CR_{15} or N, wherein:

R_{15} is hydrogen, halo, hydroxy, or $alkyl_{(C\leq6)}$, $alkenyl_{(C\leq6)}$, $alkynyl_{(C\leq6)}$, $alkoxy_{(C\leq6)}$, $alkylamino_{(C\leq6)}$, $-alkanediyl_{(C\leq6)}-heterocycloalkyl_{(C\leq8)}$, or a substituted version of any of these groups;

R_{15} and R_{14} are taken together and are $alkanediyl_{(C\leq6)}$, $alkenediyl_{(C\leq6)}$, $alkoxydiyl_{(C\leq6)}$, $alkylaminodiyl_{(C\leq6)}$, or a substituted version of any of these groups; or

R_{15} and R_2 are taken together and are alkanediyl$_{(C\leq 6)}$, alkoxydiyl$_{(C\leq 6)}$, alkylaminodiyl$_{(C\leq 6)}$, or a substituted version of any of these groups;

or a compound of the formula:



(II)

wherein:

n is 0, 1, or 2;

Y_1 is substituted alkanediyl$_{(C\leq 6)}$, C(O) alkanediyl$_{(C\leq 6)}$, or substituted C(O) alkanediyl$_{(C\leq 6)}$;

Y_2 is CH_2, O, or S;

R_1 is hydrogen, amino, halo, hydroxy, carboxy, or alkyl$_{(C\leq 6)}$, alkenyl$_{(C\leq 6)}$, alkynyl$_{(C\leq 6)}$, cycloalkyl$_{(C\leq 8)}$, heterocycloalkyl$_{(C\leq 8)}$, amido$_{(C\leq 6)}$, alkoxy$_{(C\leq 6)}$, alkylsulfonyl$_{(C\leq 6)}$, or a substituted version of any of these groups;

R_2 is hydrogen, amino, halo, hydroxy, carboxy, or alkyl$_{(C\leq 6)}$, alkenyl$_{(C\leq 6)}$, alkynyl$_{(C\leq 6)}$, cycloalkyl$_{(C\leq 8)}$, heterocycloalkyl$_{(C\leq 8)}$, aryl$_{(C\leq 12)}$, aralkyl$_{(C\leq 12)}$, amido$_{(C\leq 6)}$, alkoxy$_{(C\leq 6)}$, alkylthio$_{(C\leq 6)}$, alkylsulfonyl$_{(C\leq 6)}$, or a substituted version of any of these groups;

R_2 and R_{15} are taken together and are alkanediyl$_{(C\leq 6)}$, alkoxydiyl$_{(C\leq 6)}$, alkylaminodiyl$_{(C\leq 6)}$, or a substituted version of any of these groups;

R_3 is $-NR_{11}R_{11}'$ or $-C(O)NR_{12}R_{12}'$, wherein:

R_{11} and R_{11}' are each independently hydrogen, alkyl$_{(C\leq 6)}$, substituted alkyl$_{(C\leq 6)}$, acyl$_{(C\leq 6)}$, or substituted acyl$_{(C\leq 6)}$;

R_{12} and R_{12}' are each independently hydrogen, alkyl$_{(C\leq 6)}$, or substituted alkyl$_{(C\leq 6)}$;

R_4, R_5, and R_6 are each independently hydrogen, halo, alkyl$_{(C\leq 6)}$, substituted alkyl$_{(C\leq 6)}$, alkoxy$_{(C\leq 6)}$, substituted alkoxy$_{(C\leq 6)}$, acyloxy$_{(C\leq 6)}$, or substituted acyloxy$_{(C\leq 6)}$;

R_7 and R_7' are each independently hydrogen, carboxy or alkyl$_{(C\leq 8)}$, alkenyl$_{(C\leq 8)}$, alkynyl$_{(C\leq 8)}$, cycloalkyl$_{(C\leq 8)}$, heterocycloalkyl$_{(C\leq 8)}$, aryl$_{(C\leq 12)}$, heteroaryl$_{(C\leq 12)}$,

~~aralkyl$_{(C\leq12)}$, heteroaralkyl$_{(C\leq12)}$, —alkanediyl$_{(C\leq6)}$—OR$_{13}$, or a substituted version of any of these groups wherein:~~

~~R$_{13}$ is aralkyl$_{(C\leq12)}$ or substituted aralkyl$_{(C\leq12)}$; or~~

~~R$_7$ and R$_7$′ are taken together and are —alkanediyl$_{(C\leq7)}$—, —alkenediyl$_{(C\leq7)}$—, or a substituted version of any of these groups;~~

~~R$_8$, R$_9$, and R$_{10}$ are each independently hydrogen, halo, hydroxy, or alkyl$_{(C\leq6)}$, alkoxy$_{(C\leq6)}$, acyl$_{(C\leq6)}$, acyloxy$_{(C\leq6)}$, aralkyl$_{(C\leq12)}$, aralkoxy$_{(C\leq12)}$, or a substituted version of any of these groups;~~

~~X$_1$ is CR$_{14}$ or N, wherein:~~

~~R$_{14}$ is hydrogen, halo, hydroxy, or alkyl$_{(C\leq6)}$, alkenyl$_{(C\leq6)}$, alkynyl$_{(C\leq6)}$, alkoxy$_{(C\leq6)}$, alkylamino$_{(C\leq6)}$, —alkanediyl$_{(C\leq6)}$—heterocycloalkyl$_{(C\leq8)}$, or a substituted version of any of these groups; or~~

~~R$_{14}$ and R$_{15}$ are taken together and are alkanediyl$_{(C\leq6)}$, alkenediyl$_{(C\leq6)}$, alkoxydiyl$_{(C\leq6)}$, alkylaminodiyl$_{(C\leq6)}$, or a substituted version of any of these groups; and~~

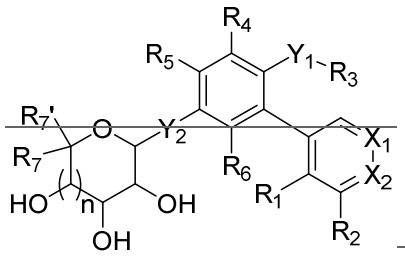
~~X$_2$ is CR$_{15}$ or N, wherein:~~

~~R$_{15}$ is hydrogen, halo, hydroxy, or alkyl$_{(C\leq6)}$, alkenyl$_{(C\leq6)}$, alkynyl$_{(C\leq6)}$, alkoxy$_{(C\leq6)}$, alkylamino$_{(C\leq6)}$, —alkanediyl$_{(C\leq6)}$—heterocycloalkyl$_{(C\leq8)}$, or a substituted version of any of these groups;~~

~~R$_{15}$ and R$_{14}$ are taken together and are alkanediyl$_{(C\leq6)}$, alkenediyl$_{(C\leq6)}$, alkoxydiyl$_{(C\leq6)}$, alkylaminodiyl$_{(C\leq6)}$, or a substituted version of any of these groups; or~~

~~R$_{15}$ and R$_2$ are taken together and are alkanediyl$_{(C\leq6)}$, alkoxydiyl$_{(C\leq6)}$, alkylaminodiyl$_{(C\leq6)}$, or a substituted version of any of these groups;~~

~~or a compound of the formula:~~



~~(III)~~

~~wherein:~~

~~n is 1 or 2;~~

Y_1 is –alkanediyl$_{(C\leq 6)}$–, –C(O)–alkanediyl$_{(C\leq 6)}$–, or a substituted version of any of these groups;

Y_2 is CH_2, O, or S;

R_1 is hydrogen, amino, halo, hydroxy, carboxy, or alkyl$_{(C\leq 6)}$, alkenyl$_{(C\leq 6)}$, alkynyl$_{(C\leq 6)}$, cycloalkyl$_{(C\leq 8)}$, heterocycloalkyl$_{(C\leq 8)}$, amido$_{(C\leq 6)}$, alkoxy$_{(C\leq 6)}$, alkylsulfonyl$_{(C\leq 6)}$, or a substituted version of any of these groups;

R_2 is hydrogen, amino, halo, hydroxy, carboxy, or alkyl$_{(C\leq 6)}$, alkenyl$_{(C\leq 6)}$, alkynyl$_{(C\leq 6)}$, cycloalkyl$_{(C\leq 8)}$, heterocycloalkyl$_{(C\leq 8)}$, aryl$_{(C\leq 12)}$, aralkyl$_{(C\leq 12)}$, amido$_{(C\leq 6)}$, alkoxy$_{(C\leq 6)}$, alkylthio$_{(C\leq 6)}$, alkylsulfonyl$_{(C\leq 6)}$, or a substituted version of any of these groups;

R_2 and R_{15} are taken together and are alkanediyl$_{(C\leq 6)}$, alkoxydiyl$_{(C\leq 6)}$, alkylaminodiyl$_{(C\leq 6)}$, or a substituted version of any of these groups;

R_3 is $NR_{11}R_{11}'$ or $C(O)NR_{12}R_{12}'$, wherein:

R_{11} and R_{11}' are each independently hydrogen, alkyl$_{(C\leq 6)}$, substituted alkyl$_{(C\leq 6)}$, acyl$_{(C\leq 6)}$, or substituted acyl$_{(C\leq 6)}$;

R_{12} and R_{12}' are each independently hydrogen, alkyl$_{(C\leq 6)}$, or substituted alkyl$_{(C\leq 6)}$;

R_4, R_5, and R_6 are each independently hydrogen, halo, alkyl$_{(C\leq 6)}$, substituted alkyl$_{(C\leq 6)}$, alkoxy$_{(C\leq 6)}$, substituted alkoxy$_{(C\leq 6)}$, acyloxy$_{(C\leq 6)}$, or substituted acyloxy$_{(C\leq 6)}$;

R_7 and R_7' are each independently hydrogen, carboxy, or alkyl$_{(C\leq 8)}$, alkenyl$_{(C\leq 8)}$, alkynyl$_{(C\leq 8)}$, cycloalkyl$_{(C\leq 8)}$, heterocycloalkyl$_{(C\leq 8)}$, aryl$_{(C\leq 12)}$, heteroaryl$_{(C\leq 12)}$, aralkyl$_{(C\leq 12)}$, heteroaralkyl$_{(C\leq 12)}$, –alkanediyl$_{(C\leq 6)}$–OR_{13}, or a substituted version of any of these groups wherein:

R_{13} is aralkyl$_{(C\leq 12)}$ or substituted aralkyl$_{(C\leq 12)}$; or

R_7 and R_7' are taken together and are –alkanediyl$_{(C\leq 7)}$–, –alkenediyl$_{(C\leq 7)}$–, or a substituted version of either of these groups;

X_1 is CR_{14} or N, wherein:

R_{14} is hydrogen, halo, hydroxy, or alkyl$_{(C\leq 6)}$, alkenyl$_{(C\leq 6)}$, alkynyl$_{(C\leq 6)}$, alkoxy$_{(C\leq 6)}$, alkylamino$_{(C\leq 6)}$, –alkanediyl$_{(C\leq 6)}$–heterocycloalkyl$_{(C\leq 8)}$, or a substituted version of any of these groups; or

R_{14} and R_{15} are taken together and are alkanediyl$_{(C\leq 6)}$, alkenediyl$_{(C\leq 6)}$, alkoxydiyl$_{(C\leq 6)}$, alkylaminodiyl$_{(C\leq 6)}$, or a substituted version of any of these groups; and

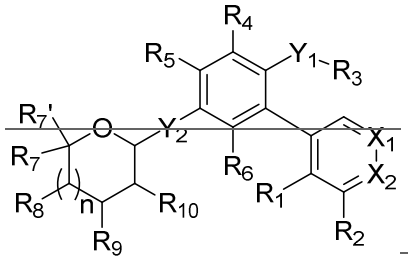
X_2 is CR_{15} or N, wherein:

R_{15} is hydrogen, halo, hydroxy, or alkyl$_{(C\leq 6)}$, alkenyl$_{(C\leq 6)}$, alkynyl$_{(C\leq 6)}$, alkoxy$_{(C\leq 6)}$, alkylamino$_{(C\leq 6)}$, alkanediyl$_{(C\leq 6)}$ heterocycloalkyl$_{(C\leq 8)}$, or a substituted version of any of these groups;

R_{15} and R_{14} are taken together and are alkanediyl$_{(C\leq 6)}$, alkenediyl$_{(C\leq 6)}$, alkoxydiyl$_{(C\leq 6)}$, alkylaminodiyl$_{(C\leq 6)}$, or a substituted version of any of these groups; or

R_{15} and R_2 are taken together and are alkanediyl$_{(C\leq 6)}$, alkoxydiyl$_{(C\leq 6)}$, alkylaminodiyl$_{(C\leq 6)}$, or a substituted version of any of these groups;

or a compound of the formula:



(II)

wherein:

n is 0, 1, or 2;

Y_1 is –alkanediyl$_{(C\leq 6)}$–, –C(O)–alkanediyl$_{(C\leq 6)}$–, or a substituted version of any of these groups;

Y_2 is CH_2, O, or S;

R_1 is hydrogen, amino, halo, hydroxy, carboxy, or alkyl$_{(C\leq 6)}$, alkenyl$_{(C\leq 6)}$, alkynyl$_{(C\leq 6)}$, cycloalkyl$_{(C\leq 8)}$, heterocycloalkyl$_{(C\leq 8)}$, amido$_{(C\leq 6)}$, alkoxy$_{(C\leq 6)}$, alkylsulfonyl$_{(C\leq 6)}$, or a substituted version of any of these groups;

R_2 is hydrogen, amino, halo, hydroxy, carboxy, or alkyl$_{(C\leq 6)}$, alkenyl$_{(C\leq 6)}$, alkynyl$_{(C\leq 6)}$, cycloalkyl$_{(C\leq 8)}$, heterocycloalkyl$_{(C\leq 8)}$, aryl$_{(C\leq 12)}$, aralkyl$_{(C\leq 12)}$, amido$_{(C\leq 6)}$, alkoxy$_{(C\leq 6)}$, alkylthio$_{(C\leq 6)}$, alkylsulfonyl$_{(C\leq 6)}$, or a substituted version of any of these groups;

R_2 and R_{15} are taken together and are alkanediyl$_{(C\leq 6)}$, alkoxydiyl$_{(C\leq 6)}$, alkylaminodiyl$_{(C\leq 6)}$, or a substituted version of any of these groups;

R_3 is $-NR_{11}R_{11}'$ or $-C(O)NR_{12}R_{12}'$, wherein:

R_{11} and R_{11}' are each independently hydrogen, alkyl$_{(C\leq 6)}$, substituted alkyl$_{(C\leq 6)}$, acyl$_{(C\leq 6)}$, or substituted acyl$_{(C\leq 6)}$;

R_{12} and R_{12}' are each independently hydrogen, alkyl$_{(C\leq 6)}$, or substituted alkyl$_{(C\leq 6)}$;

R_4, R_5, and R_6 are each independently hydrogen, halo, alkyl$_{(C\leq 6)}$, substituted alkyl$_{(C\leq 6)}$, alkoxy$_{(C\leq 6)}$, substituted alkoxy$_{(C\leq 6)}$, acyloxy$_{(C\leq 6)}$, or substituted acyloxy$_{(C\leq 6)}$;

R_7 is carboxy or alkyl$_{(C\leq 8)}$, alkenyl$_{(C\leq 8)}$, alkynyl$_{(C\leq 8)}$, cycloalkyl$_{(C\leq 8)}$, heterocycloalkyl$_{(C\leq 8)}$, aryl$_{(C\leq 12)}$, heteroaryl$_{(C\leq 12)}$, aralkyl$_{(C\leq 12)}$, heteroaralkyl$_{(C\leq 12)}$, $-$alkanediyl$_{(C\leq 6)}-OR_{13}$, or a substituted version of any of these groups wherein:

R_{13} is aralkyl$_{(C\leq 12)}$ or substituted aralkyl$_{(C\leq 12)}$;

R_7' is hydrogen, carboxy, or alkyl$_{(C\leq 8)}$, alkenyl$_{(C\leq 8)}$, alkynyl$_{(C\leq 8)}$, cycloalkyl$_{(C\leq 8)}$, heterocycloalkyl$_{(C\leq 8)}$, aryl$_{(C\leq 12)}$, heteroaryl$_{(C\leq 12)}$, aralkyl$_{(C\leq 12)}$, heteroaralkyl$_{(C\leq 12)}$, $-$alkanediyl$_{(C\leq 6)}-OR_{13}$, or a substituted version of any of these groups wherein:

R_{13} is aralkyl$_{(C\leq 12)}$ or substituted aralkyl$_{(C\leq 12)}$; or

R_7 and R_7' are taken together and are alkanediyl$_{(C\leq 7)}$, alkenediyl$_{(C\leq 7)}$, or a substituted version of either of these groups;

R_8 is halo, alkoxy$_{(C3-6)}$, acyloxy$_{(C\leq 6)}$, aralkoxy$_{(C\leq 12)}$, or a substituted version of any of these groups;

R_9 and R_{10} are each independently halo, hydroxy, or alkyl$_{(C\leq 6)}$, alkoxy$_{(C\leq 6)}$, acyl$_{(C\leq 6)}$, acyloxy$_{(C\leq 6)}$, aralkyl$_{(C\leq 12)}$, aralkoxy$_{(C\leq 12)}$, or a substituted version of any of these groups;

X_1 is CR_{14} or N, wherein:

R_{14} is hydrogen, halo, hydroxy, or alkyl$_{(C\leq 6)}$, alkenyl$_{(C\leq 6)}$, alkynyl$_{(C\leq 6)}$, alkoxy$_{(C\leq 6)}$, alkylamino$_{(C\leq 6)}$, $-$alkanediyl$_{(C\leq 6)}$ heterocycloalkyl$_{(C\leq 8)}$, or a substituted version of any of these groups; or

R_{14} and R_{15} are taken together and are alkanediyl$_{(C\leq 6)}$, alkenediyl$_{(C\leq 6)}$, alkoxydiyl$_{(C\leq 6)}$, alkylaminodiyl$_{(C\leq 6)}$, or a substituted version of any of these groups; and

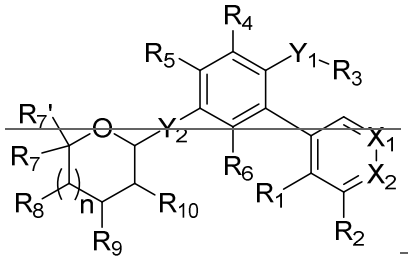
X_2 is CR_{15} or N, wherein:

R_{15} is hydrogen, halo, hydroxy, or alkyl$_{(C\leq 6)}$, alkenyl$_{(C\leq 6)}$, alkynyl$_{(C\leq 6)}$, alkoxy$_{(C\leq 6)}$, alkylamino$_{(C\leq 6)}$, alkanediyl$_{(C\leq 6)}$ heterocycloalkyl$_{(C\leq 8)}$, or a substituted version of any of these groups;

R_{15} and R_{14} are taken together and are alkanediyl$_{(C\leq 6)}$, alkenediyl$_{(C\leq 6)}$, alkoxydiyl$_{(C\leq 6)}$, alkylaminodiyl$_{(C\leq 6)}$, or a substituted version of any of these groups; or

R_{15} and R_2 are taken together and are alkanediyl$_{(C\leq 6)}$, alkoxydiyl$_{(C\leq 6)}$, alkylaminodiyl$_{(C\leq 6)}$, or a substituted version of any of these groups;

or a compound of the formula:



(II)

wherein:

n is 0, 1, or 2;

Y_1 is –alkanediyl$_{(C\leq 6)}$–, –C(O)–alkanediyl$_{(C\leq 6)}$–, or a substituted version of any of these groups;

Y_2 is CH_2, O, or S;

R_1 is hydrogen, amino, halo, hydroxy, carboxy, or alkyl$_{(C\leq 6)}$, alkenyl$_{(C\leq 6)}$, alkynyl$_{(C\leq 6)}$, cycloalkyl$_{(C\leq 8)}$, heterocycloalkyl$_{(C\leq 8)}$, amido$_{(C\leq 6)}$, alkoxy$_{(C\leq 6)}$, alkylsulfonyl$_{(C\leq 6)}$, or a substituted version of any of these groups;

R_2 is hydrogen, amino, halo, hydroxy, carboxy, or alkyl$_{(C\leq 6)}$, alkenyl$_{(C\leq 6)}$, alkynyl$_{(C\leq 6)}$, cycloalkyl$_{(C\leq 8)}$, heterocycloalkyl$_{(C\leq 8)}$, aryl$_{(C\leq 12)}$, aralkyl$_{(C\leq 12)}$, amido$_{(C\leq 6)}$, alkoxy$_{(C\leq 6)}$, alkylthio$_{(C\leq 6)}$, alkylsulfonyl$_{(C\leq 6)}$, or a substituted version of any of these groups;

R_2 and R_{15} are taken together and are alkanediyl$_{(C\leq 6)}$, alkoxydiyl$_{(C\leq 6)}$, alkylaminodiyl$_{(C\leq 6)}$, or a substituted version of any of these groups;

R_3 is $-NR_{11}R_{11}'$ or $-C(O)NR_{12}R_{12}'$, wherein:

R_{11} and R_{11}' are each independently hydrogen, alkyl$_{(C\leq 6)}$, substituted alkyl$_{(C\leq 6)}$;

R_{12} and R_{12}' are each independently hydrogen, $alkyl_{(C\leq6)}$, or substituted $alkyl_{(C\leq6)}$;

R_4, R_5, and R_6 are each independently hydrogen, halo, $alkyl_{(C\leq6)}$, substituted $alkyl_{(C\leq6)}$, $alkoxy_{(C\leq6)}$, substituted $alkoxy_{(C\leq6)}$, $acyloxy_{(C\leq6)}$, or substituted $acyloxy_{(C\leq6)}$;

R_7 and R_7' are each independently hydrogen, carboxy or $alkyl_{(C\leq8)}$, $alkenyl_{(C\leq8)}$, $alkynyl_{(C\leq8)}$, $cycloalkyl_{(C\leq8)}$, $heterocycloalkyl_{(C\leq8)}$, $aryl_{(C\leq12)}$, $heteroaryl_{(C\leq12)}$, $aralkyl_{(C\leq12)}$, $heteroaralkyl_{(C\leq12)}$, $-alkanediyl_{(C\leq6)}-OR_{13}$, or a substituted version of any of these groups wherein:

R_{13} is $alkyl_{(C\leq12)}$, substituted $alkyl_{(C\leq12)}$, $aralkyl_{(C\leq12)}$, or substituted $aralkyl_{(C\leq12)}$;

R_7 and R_7' are taken together and are $-alkanediyl_{(C\leq7)}-$, $-alkenediyl_{(C\leq7)}-$, or a substituted version of either of these groups;

R_8, R_9, and R_{10} are each independently hydrogen, halo, hydroxy, or $alkyl_{(C\leq6)}$, $alkoxy_{(C\leq6)}$, $acyl_{(C\leq6)}$, $acyloxy_{(C\leq6)}$, $aralkyl_{(C\leq12)}$, $aralkoxy_{(C\leq12)}$, or a substituted version of any of these groups;

X_1 is CR_{14} or N, wherein:

R_{14} is hydrogen, halo, hydroxy, or $alkyl_{(C\leq6)}$, $alkenyl_{(C\leq6)}$, $alkynyl_{(C\leq6)}$, $alkoxy_{(C\leq6)}$, $alkylamino_{(C\leq6)}$, $-alkanediyl_{(C\leq6)}-heterocycloalkyl_{(C\leq8)}$, or a substituted version of any of these groups; or

R_{14} and R_{15} are taken together and are $alkanediyl_{(C\leq6)}$, $alkenediyl_{(C\leq6)}$, $alkoxydiyl_{(C\leq6)}$, $alkylaminodiyl_{(C\leq6)}$, or a substituted version of any of these groups; and

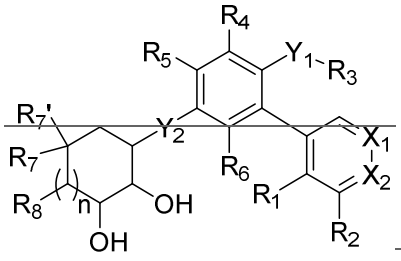
X_2 is CR_{15} or N, wherein:

R_{15} is hydrogen, halo, hydroxy, or $alkyl_{(C\leq6)}$, $alkenyl_{(C\leq6)}$, $alkynyl_{(C\leq6)}$, $alkoxy_{(C\leq6)}$, $alkylamino_{(C\leq6)}$, $-alkanediyl_{(C\leq6)}-heterocycloalkyl_{(C\leq8)}$, or a substituted version of any of these groups;

R_{15} and R_{14} are taken together and are $alkanediyl_{(C\leq6)}$, $alkenediyl_{(C\leq6)}$, $alkoxydiyl_{(C\leq6)}$, $alkylaminodiyl_{(C\leq6)}$, or a substituted version of any of these groups; or

R_{15} and R_2 are taken together and are $alkanediyl_{(C\leq6)}$, $alkoxydiyl_{(C\leq6)}$, $alkylaminodiyl_{(C\leq6)}$, or a substituted version of any of these groups;

~~or a compound of the formula:~~



~~(IV)~~

~~wherein:~~

~~n is 0, 1, or 2;~~

~~Y_1 is alkanediyl$_{(C\leq 6)}$, C(O) alkanediyl$_{(C\leq 6)}$, or a substituted version of any of these groups;~~

~~Y_2 is CH_2, O, or S;~~

~~R_1 is hydrogen, amino, halo, hydroxy, carboxy, or alkyl$_{(C\leq 6)}$, alkenyl$_{(C\leq 6)}$, alkynyl$_{(C\leq 6)}$, cycloalkyl$_{(C\leq 8)}$, heterocycloalkyl$_{(C\leq 8)}$, amido$_{(C\leq 6)}$, alkoxy$_{(C\leq 6)}$, alkylsulfonyl$_{(C\leq 6)}$, or a substituted version of any of these groups;~~

~~R_2 is hydrogen, amino, halo, hydroxy, carboxy, or alkyl$_{(C\leq 6)}$, alkenyl$_{(C\leq 6)}$, alkynyl$_{(C\leq 6)}$, cycloalkyl$_{(C\leq 8)}$, heterocycloalkyl$_{(C\leq 8)}$, aryl$_{(C\leq 12)}$, aralkyl$_{(C\leq 12)}$, amido$_{(C\leq 6)}$, alkoxy$_{(C\leq 6)}$, alkylthio$_{(C\leq 6)}$, alkylsulfonyl$_{(C\leq 6)}$, or a substituted version of any of these groups;~~

~~R_2 and R_{15} are taken together and are alkanediyl$_{(C\leq 6)}$, alkoxydiyl$_{(C\leq 6)}$, alkylaminodiyl$_{(C\leq 6)}$, or a substituted version of any of these groups;~~

~~R_3 is $NR_{11}R_{11}'$ or $C(O)NR_{12}R_{12}'$, wherein:~~

~~R_{11} and R_{11}' are each independently hydrogen, alkyl$_{(C\leq 6)}$, substituted alkyl$_{(C\leq 6)}$, acyl$_{(C\leq 6)}$, or substituted acyl$_{(C\leq 6)}$;~~

~~R_{12} and R_{12}' are each independently hydrogen, alkyl$_{(C\leq 6)}$, or substituted alkyl$_{(C\leq 6)}$;~~

~~R_4, R_5, and R_6 are each independently hydrogen, halo, alkyl$_{(C\leq 6)}$, substituted alkyl$_{(C\leq 6)}$, alkoxy$_{(C\leq 6)}$, substituted alkoxy$_{(C\leq 6)}$, acyloxy$_{(C\leq 6)}$, or substituted acyloxy$_{(C\leq 6)}$;~~

~~R_7 is carboxy or alkyl$_{(C\leq 8)}$, alkenyl$_{(C\leq 8)}$, alkynyl$_{(C\leq 8)}$, cycloalkyl$_{(C\leq 8)}$, heterocycloalkyl$_{(C\leq 8)}$, aryl$_{(C\leq 12)}$, heteroaryl$_{(C\leq 12)}$, aralkyl$_{(C\leq 12)}$, heteroaralkyl$_{(C\leq 12)}$, –alkanediyl$_{(C\leq 6)}$–OR_{13}, or a substituted version of any of these groups wherein:~~

~~R_{13} is alkyl$_{(C\leq 12)}$, substituted alkyl$_{(C\leq 12)}$, aralkyl$_{(C\leq 12)}$, or substituted aralkyl$_{(C\leq 12)}$;~~

R_7' is hydrogen, carboxy or $alkyl_{(C\leq 8)}$, $alkenyl_{(C\leq 8)}$, $alkynyl_{(C\leq 8)}$, $cycloalkyl_{(C\leq 8)}$, $heterocycloalkyl_{(C\leq 8)}$, $aryl_{(C\leq 12)}$, $heteroaryl_{(C\leq 12)}$, $aralkyl_{(C\leq 12)}$, $heteroaralkyl_{(C\leq 12)}$, $alkanediyl_{(C\leq 6)}$-OR_{13}, or a substituted version of any of these groups wherein:

R_{13} is $alkyl_{(C\leq 12)}$, substituted $alkyl_{(C\leq 12)}$, $aralkyl_{(C\leq 12)}$, or substituted $aralkyl_{(C\leq 12)}$;

R_7 and R_7' are taken together and are -$alkanediyl_{(C\leq 7)}$-, -$alkenediyl_{(C\leq 7)}$-, or a substituted version of either of these groups;

R_8 is halo, hydroxy, or $alkyl_{(C\leq 6)}$, $alkoxy_{(C\leq 6)}$, $acyl_{(C\leq 6)}$, $acyloxy_{(C\leq 6)}$, $aralkyl_{(C\leq 12)}$, $aralkoxy_{(C\leq 12)}$, or a substituted version of any of these groups;

X_1 is CR_{14} or N, wherein:

R_{14} is hydrogen, halo, hydroxy, or $alkyl_{(C\leq 6)}$, $alkenyl_{(C\leq 6)}$, $alkynyl_{(C\leq 6)}$, $alkoxy_{(C\leq 6)}$, $alkylamino_{(C\leq 6)}$, -$alkanediyl_{(C\leq 6)}$-$heterocycloalkyl_{(C\leq 8)}$, or a substituted version of any of these groups; or

R_{14} and R_{15} are taken together and are $alkanediyl_{(C\leq 6)}$, $alkenediyl_{(C\leq 6)}$, $alkoxydiyl_{(C\leq 6)}$, $alkylaminodiyl_{(C\leq 6)}$, or a substituted version of any of these groups; and

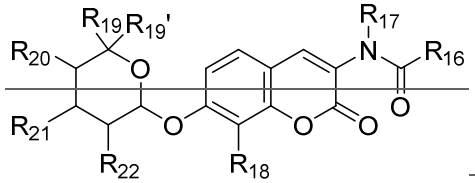
X_2 is CR_{15} or N, wherein:

R_{15} is hydrogen, halo, hydroxy, or $alkyl_{(C\leq 6)}$, $alkenyl_{(C\leq 6)}$, $alkynyl_{(C\leq 6)}$, $alkoxy_{(C\leq 6)}$, $alkylamino_{(C\leq 6)}$, -$alkanediyl_{(C\leq 6)}$-$heterocycloalkyl_{(C\leq 8)}$, or a substituted version of any of these groups;

R_{15} and R_{14} are taken together and are $alkanediyl_{(C\leq 6)}$, $alkenediyl_{(C\leq 6)}$, $alkoxydiyl_{(C\leq 6)}$, $alkylaminodiyl_{(C\leq 6)}$, or a substituted version of any of these groups; or

R_{15} and R_2 are taken together and are $alkanediyl_{(C\leq 6)}$, $alkoxydiyl_{(C\leq 6)}$, $alkylaminodiyl_{(C\leq 6)}$, or a substituted version of any of these groups;

or a compound of the formula:



(V)

wherein:

R_{16} is $alkyl_{(C\leq 12)}$, $cycloalkyl_{(C\leq 12)}$, $aryl_{(C\leq 18)}$, $heteroaryl_{(C\leq 18)}$, or a substituted version thereof;

R_{17} and R_{18} are each independently hydrogen, $alkyl_{(C\leq8)}$, or $substituted\ alkyl_{(C\leq8)}$;

R_{19} is carboxy or $alkyl_{(C\leq8)}$, $alkenyl_{(C\leq8)}$, $alkynyl_{(C\leq8)}$, $cycloalkyl_{(C\leq8)}$, $heterocycloalkyl_{(C\leq8)}$, $aryl_{(C\leq12)}$, $heteroaryl_{(C\leq12)}$, $aralkyl_{(C\leq12)}$, $heteroaralkyl_{(C\leq12)}$, $-alkanediyl_{(C\leq6)}-OR_{13}$, or a substituted version of any of these groups wherein:

R_{13} is $alkyl_{(C\leq12)}$, $substituted\ alkyl_{(C\leq12)}$, $aralkyl_{(C\leq12)}$, or substituted

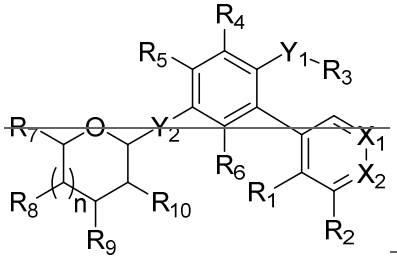
R_{19}' is hydrogen, carboxy or $alkyl_{(C\leq8)}$, $alkenyl_{(C\leq8)}$, $alkynyl_{(C\leq8)}$, $cycloalkyl_{(C\leq8)}$, $heterocycloalkyl_{(C\leq8)}$, $aryl_{(C\leq12)}$, $heteroaryl_{(C\leq12)}$, $aralkyl_{(C\leq12)}$, $heteroaralkyl_{(C\leq12)}$, $-alkanediyl_{(C\leq6)}-OR_{13}$, or a substituted version of any of these groups wherein:

R_{13} is $alkyl_{(C\leq12)}$, $substituted\ alkyl_{(C\leq12)}$, $aralkyl_{(C\leq12)}$, or $substituted\ aralkyl_{(C\leq12)}$;

R_{20}, R_{21}, and R_{22} are each independently halo, hydroxy, or $alkyl_{(C\leq6)}$, $alkoxy_{(C\leq6)}$, $acyl_{(C\leq6)}$, $acyloxy_{(C\leq6)}$, $aralkyl_{(C\leq12)}$, $aralkoxy_{(C\leq12)}$, or a substituted version of any of these groups, or a protected hydroxy group;

or a pharmaceutically acceptable salt of any of the above formulas.

2. The compound of claim 1 further defined as:



(I)

wherein:

n is 0, 1, or 2;

Y_1 is $-alkanediyl_{(C\leq6)}-$, $-C(O)-alkanediyl_{(C\leq6)}-$, or a substituted version of any of these groups;

Y_2 is CH_2, O, or S;

R_1 is hydrogen, amino, halo, hydroxy, carboxy, or $alkyl_{(C\leq6)}$, $alkenyl_{(C\leq6)}$, $alkynyl_{(C\leq6)}$, $cycloalkyl_{(C\leq8)}$, $heterocycloalkyl_{(C\leq8)}$, $amido_{(C\leq6)}$, $alkoxy_{(C\leq6)}$, $alkylsulfonyl_{(C\leq6)}$, or a substituted version of any of these groups;

R_2 is hydrogen, amino, halo, hydroxy, carboxy, or $alkyl_{(C\leq6)}$, $alkenyl_{(C\leq6)}$, $alkynyl_{(C\leq6)}$, $cycloalkyl_{(C\leq8)}$, $heterocycloalkyl_{(C\leq8)}$, $aryl_{(C\leq12)}$, $aralkyl_{(C\leq12)}$, $amido_{(C\leq6)}$, $alkoxy_{(C\leq6)}$, $alkylthio_{(C\leq6)}$, $alkylsulfonyl_{(C\leq6)}$, or a substituted version of any of these groups;

R_2 and R_{15} are taken together and are alkanediyl$_{(C\leq 6)}$, alkoxydiyl$_{(C\leq 6)}$, alkylaminodiyl$_{(C\leq 6)}$, or a substituted version of any of these groups;

R_3 is $-NR_{11}R_{11}'$ or $-C(O)NR_{12}R_{12}'$, wherein:

R_{11} and R_{11}' are each independently hydrogen, alkyl$_{(C\leq 6)}$, substituted alkyl$_{(C\leq 6)}$, acyl$_{(C\leq 6)}$, or substituted acyl$_{(C\leq 6)}$;

R_{12} and R_{12}' are each independently hydrogen, alkyl$_{(C\leq 6)}$, or substituted alkyl$_{(C\leq 6)}$;

R_4, R_5, and R_6 are each independently hydrogen, halo, alkyl$_{(C\leq 6)}$, substituted alkyl$_{(C\leq 6)}$, alkoxy$_{(C\leq 6)}$, substituted alkoxy$_{(C\leq 6)}$, acyloxy$_{(C\leq 6)}$, or substituted acyloxy$_{(C\leq 6)}$;

R_7 is carboxy or alkyl$_{(C\leq 6)}$, alkenyl$_{(C\leq 8)}$, alkynyl$_{(C\leq 8)}$, cycloalkyl$_{(C\leq 8)}$, heterocycloalkyl$_{(C\leq 8)}$, aryl$_{(C\leq 12)}$, heteroaryl$_{(C\leq 12)}$, aralkyl$_{(C\leq 12)}$, heteroaralkyl$_{(C\leq 12)}$, $-$alkanediyl$_{(C\leq 6)}-OR_{13}$, or a substituted version of any of these groups wherein:

R_{13} is aralkyl$_{(C\leq 12)}$ or substituted aralkyl$_{(C\leq 12)}$;

R_8, R_9, and R_{10} are each independently hydrogen, hydroxy, or alkyl$_{(C\leq 6)}$, alkoxy$_{(C\leq 6)}$, acyl$_{(C\leq 6)}$, acyloxy$_{(C\leq 6)}$, aralkyl$_{(C\leq 12)}$, aralkoxy$_{(C\leq 12)}$, or a substituted version of any of these groups;

X_1 is CR_{14} or N, wherein:

R_{14} is hydrogen, halo, hydroxy, or alkyl$_{(C\leq 6)}$, alkenyl$_{(C\leq 6)}$, alkynyl$_{(C\leq 6)}$, alkoxy$_{(C\leq 6)}$, alkylamino$_{(C\leq 6)}$, $-$alkanediyl$_{(C\leq 6)}$ heterocycloalkyl$_{(C\leq 8)}$, or a substituted version of any of these groups; or

R_{14} and R_{15} are taken together and are alkanediyl$_{(C\leq 6)}$, alkenediyl$_{(C\leq 6)}$, alkoxydiyl$_{(C\leq 6)}$, alkylaminodiyl$_{(C\leq 6)}$, or a substituted version of any of these groups; and

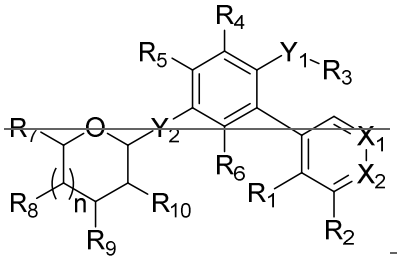
X_2 is CR_{15} or N, wherein:

R_{15} is hydrogen, halo, hydroxy, or alkyl$_{(C\leq 6)}$, alkenyl$_{(C\leq 6)}$, alkynyl$_{(C\leq 6)}$, alkoxy$_{(C\leq 6)}$, alkylamino$_{(C\leq 6)}$, $-$alkanediyl$_{(C\leq 6)}$ heterocycloalkyl$_{(C\leq 8)}$, or a substituted version of any of these groups;

R_{15} and R_{14} are taken together and are alkanediyl$_{(C\leq 6)}$, alkenediyl$_{(C\leq 6)}$, alkoxydiyl$_{(C\leq 6)}$, alkylaminodiyl$_{(C\leq 6)}$, or a substituted version of any of these groups; or

~~R_{15} and R_2 are taken together and are alkanediyl$_{(C\leq 6)}$, alkoxydiyl$_{(C\leq 6)}$, alkylaminodiyl$_{(C\leq 6)}$, or a substituted version of any of these groups;~~

~~or a compound of the formula:~~



~~(I)~~

~~wherein:~~

~~n is 0, 1, or 2;~~

~~Y_1 is alkanediyl$_{(C\leq 6)}$, C(O) alkanediyl$_{(C\leq 6)}$, or a substituted version of any of these groups;~~

~~Y_2 is CH_2, O, or S;~~

~~R_1 is hydrogen, amino, halo, hydroxy, carboxy, or alkyl$_{(C\leq 6)}$, alkenyl$_{(C\leq 6)}$, alkynyl$_{(C\leq 6)}$, cycloalkyl$_{(C\leq 8)}$, heterocycloalkyl$_{(C\leq 8)}$, amido$_{(C\leq 6)}$, alkoxy$_{(C\leq 6)}$, alkylsulfonyl$_{(C\leq 6)}$, or a substituted version of any of these groups;~~

~~R_2 is hydrogen, amino, halo, hydroxy, carboxy, or alkyl$_{(C\leq 6)}$, alkenyl$_{(C\leq 6)}$, alkynyl$_{(C\leq 6)}$, cycloalkyl$_{(C\leq 8)}$, heterocycloalkyl$_{(C\leq 8)}$, aryl$_{(C\leq 12)}$, aralkyl$_{(C\leq 12)}$, amido$_{(C\leq 6)}$, alkoxy$_{(C\leq 6)}$, alkylthio$_{(C\leq 6)}$, alkylsulfonyl$_{(C\leq 6)}$, or a substituted version of any of these groups;~~

~~R_2 and R_{15} are taken together and are alkanediyl$_{(C\leq 6)}$, alkoxydiyl$_{(C\leq 6)}$, alkylaminodiyl$_{(C\leq 6)}$, or a substituted version of any of these groups;~~

~~R_3 is $-NR_{11}R_{11}'$ or $-C(O)NR_{12}R_{12}'$, wherein:~~

~~R_{11} and R_{11}' are each independently hydrogen, alkyl$_{(C\leq 6)}$, substituted alkyl$_{(C\leq 6)}$, acyl$_{(C\leq 6)}$, or substituted acyl$_{(C\leq 6)}$;~~

~~R_{12} and R_{12}' are each independently hydrogen, alkyl$_{(C\leq 6)}$, or substituted alkyl$_{(C\leq 6)}$;~~

~~R_4, R_5, and R_6 are each independently hydrogen, halo, alkyl$_{(C\leq 6)}$, substituted alkyl$_{(C\leq 6)}$, alkoxy$_{(C\leq 6)}$, substituted alkoxy$_{(C\leq 6)}$, acyloxy$_{(C\leq 6)}$, or substituted acyloxy$_{(C\leq 6)}$;~~

R_7 is hydrogen, carboxy or alkyl$_{(C\leq6)}$, alkenyl$_{(C\leq8)}$, alkynyl$_{(C\leq8)}$, cycloalkyl$_{(C\leq8)}$, heterocycloalkyl$_{(C\leq8)}$, aryl$_{(C\leq12)}$, heteroaryl$_{(C\leq12)}$, aralkyl$_{(C\leq12)}$, heteroaralkyl$_{(C\leq12)}$, alkanediyl$_{(C\leq6)}$-OR_{13}, or a substituted version of any of these groups wherein:

R_{13} is aralkyl$_{(C\leq12)}$ or substituted aralkyl$_{(C\leq12)}$;

R_8 and R_9 are each independently hydrogen, hydroxy, or alkyl$_{(C\leq6)}$, alkoxy$_{(C\leq6)}$, acyl$_{(C\leq6)}$, acyloxy$_{(C\leq6)}$, aralkyl$_{(C\leq12)}$, aralkoxy$_{(C\leq12)}$, or a substituted version of any of these groups;

R_{10} is amino or alkylamino$_{(C\leq6)}$, dialkylamino$_{(C\leq12)}$, amido$_{(C\leq12)}$, or a substituted version of any of these three groups;

X_1 is CR_{14} or N, wherein:

R_{14} is hydrogen, halo, hydroxy, or alkyl$_{(C\leq6)}$, alkenyl$_{(C\leq6)}$, alkynyl$_{(C\leq6)}$, alkoxy$_{(C\leq6)}$, alkylamino$_{(C\leq6)}$, -alkanediyl$_{(C\leq6)}$-heterocycloalkyl$_{(C\leq8)}$, or a substituted version of any of these groups; or

R_{14} and R_{15} are taken together and are alkanediyl$_{(C\leq6)}$, alkenediyl$_{(C\leq6)}$, alkoxydiyl$_{(C\leq6)}$, alkylaminodiyl$_{(C\leq6)}$, or a substituted version of any of these groups; and

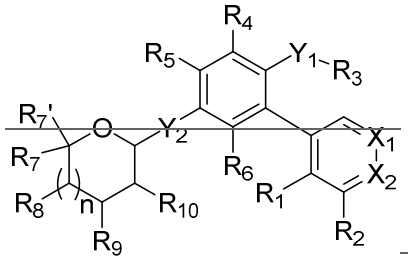
X_2 is CR_{15} or N, wherein:

R_{15} is hydrogen, halo, hydroxy, or alkyl$_{(C\leq6)}$, alkenyl$_{(C\leq6)}$, alkynyl$_{(C\leq6)}$, alkoxy$_{(C\leq6)}$, alkylamino$_{(C\leq6)}$, -alkanediyl$_{(C\leq6)}$-heterocycloalkyl$_{(C\leq8)}$, or a substituted version of any of these groups;

R_{15} and R_{14} are taken together and are alkanediyl$_{(C\leq6)}$, alkenediyl$_{(C\leq6)}$, alkoxydiyl$_{(C\leq6)}$, alkylaminodiyl$_{(C\leq6)}$, or a substituted version of any of these groups; or

R_{15} and R_2 are taken together and are alkanediyl$_{(C\leq6)}$, alkoxydiyl$_{(C\leq6)}$, alkylaminodiyl$_{(C\leq6)}$, or a substituted version of any of these groups;

or a compound of the formula:



(II)

wherein:
n is 0, 1, or 2;

Y_1 is –alkanediyl$_{(C\leq 6)}$–, –C(O)–alkanediyl$_{(C\leq 6)}$–, or a substituted version of any of these groups;

Y_2 is CH_2, O, or S;

R_1 is hydrogen, amino, halo, hydroxy, carboxy, or alkyl$_{(C\leq 6)}$, alkenyl$_{(C\leq 6)}$, alkynyl$_{(C\leq 6)}$, cycloalkyl$_{(C\leq 8)}$, heterocycloalkyl$_{(C\leq 8)}$, amido$_{(C\leq 6)}$, alkoxy$_{(C\leq 6)}$, alkylsulfonyl$_{(C\leq 6)}$, or a substituted version of any of these groups;

R_2 is hydrogen, amino, halo, hydroxy, carboxy, or alkyl$_{(C\leq 6)}$, alkenyl$_{(C\leq 6)}$, alkynyl$_{(C\leq 6)}$, cycloalkyl$_{(C\leq 8)}$, heterocycloalkyl$_{(C\leq 8)}$, aryl$_{(C\leq 12)}$, aralkyl$_{(C\leq 12)}$, amido$_{(C\leq 6)}$, alkoxy$_{(C\leq 6)}$, alkylthio$_{(C\leq 6)}$, alkylsulfonyl$_{(C\leq 6)}$, or a substituted version of any of these groups;

R_2 and R_{15} are taken together and are alkanediyl$_{(C\leq 6)}$, alkoxydiyl$_{(C\leq 6)}$, alkylaminodiyl$_{(C\leq 6)}$, or a substituted version of any of these groups;

R_3 is –$NR_{11}R_{11}'$ or –$C(O)NR_{12}R_{12}'$, wherein:

R_{11} and R_{11}' are each independently hydrogen, alkyl$_{(C\leq 6)}$, substituted alkyl$_{(C\leq 6)}$, acyl$_{(C\leq 6)}$, or substituted acyl$_{(C\leq 6)}$;

R_{12} and R_{12}' are each independently hydrogen, alkyl$_{(C\leq 6)}$, or substituted alkyl$_{(C\leq 6)}$;

R_4, R_5, and R_6 are each independently hydrogen, halo, alkyl$_{(C\leq 6)}$, substituted alkyl$_{(C\leq 6)}$, alkoxy$_{(C\leq 6)}$, substituted alkoxy$_{(C\leq 6)}$, acyloxy$_{(C\leq 6)}$, or substituted acyloxy$_{(C\leq 6)}$;

R_7 is carboxy or alkyl$_{(C3\text{-}8)}$, alkenyl$_{(C\leq 8)}$, alkynyl$_{(C\leq 8)}$, cycloalkyl$_{(C\leq 8)}$, heterocycloalkyl$_{(C\leq 8)}$, aryl$_{(C\leq 12)}$, heteroaryl$_{(C\leq 12)}$, aralkyl$_{(C\leq 12)}$, heteroaralkyl$_{(C\leq 12)}$, –alkanediyl$_{(C\leq 6)}$–OR_{13}, or a substituted version of any of these groups wherein:

R_{13} is aralkyl$_{(C\leq 12)}$ or substituted aralkyl$_{(C\leq 12)}$;

R_7' is hydrogen, carboxy, or alkyl$_{(C3\text{-}8)}$, alkenyl$_{(C\leq 8)}$, alkynyl$_{(C\leq 8)}$, cycloalkyl$_{(C\leq 8)}$, heterocycloalkyl$_{(C\leq 8)}$, aryl$_{(C\leq 12)}$, heteroaryl$_{(C\leq 12)}$, aralkyl$_{(C\leq 12)}$, heteroaralkyl$_{(C\leq 12)}$, –alkanediyl$_{(C\leq 6)}$–OR_{13}, or a substituted version of any of these groups wherein:

R_{13} is aralkyl$_{(C\leq 12)}$ or substituted aralkyl$_{(C\leq 12)}$; or

R_7 and R_7' are taken together and are –alkanediyl$_{(C\leq 7)}$–, –alkenediyl$_{(C\leq 7)}$–, or a substituted version of either of these groups;

R_8, R_9, and R_{10} are each independently hydrogen, hydroxy, or alkyl$_{(C\leq6)}$, alkoxy$_{(C\leq6)}$, acyl$_{(C\leq6)}$, acyloxy$_{(C\leq6)}$, aralkyl$_{(C\leq12)}$, aralkoxy$_{(C\leq12)}$, or a substituted version of any of these groups;

X_1 is CR_{14} or N, wherein:

R_{14} is hydrogen, halo, hydroxy, or alkyl$_{(C\leq6)}$, alkenyl$_{(C\leq6)}$, alkynyl$_{(C\leq6)}$, alkoxy$_{(C\leq6)}$, alkylamino$_{(C\leq6)}$, –alkanediyl$_{(C\leq6)}$–heterocycloalkyl$_{(C\leq8)}$, or a substituted version of any of these groups; or

R_{14} and R_{15} are taken together and are alkanediyl$_{(C\leq6)}$, alkenediyl$_{(C\leq6)}$, alkoxydiyl$_{(C\leq6)}$, alkylaminodiyl$_{(C\leq6)}$, or a substituted version of any of these groups; and

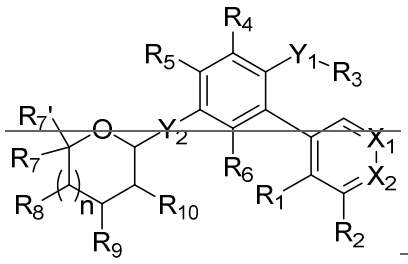
X_2 is CR_{15} or N, wherein:

R_{15} is hydrogen, halo, hydroxy, or alkyl$_{(C\leq6)}$, alkenyl$_{(C\leq6)}$, alkynyl$_{(C\leq6)}$, alkoxy$_{(C\leq6)}$, alkylamino$_{(C\leq6)}$, –alkanediyl$_{(C\leq6)}$–heterocycloalkyl$_{(C\leq8)}$, or a substituted version of any of these groups;

R_{15} and R_{14} are taken together and are alkanediyl$_{(C\leq6)}$, alkenediyl$_{(C\leq6)}$, alkoxydiyl$_{(C\leq6)}$, alkylaminodiyl$_{(C\leq6)}$, or a substituted version of any of these groups; or

R_{15} and R_2 are taken together and are alkanediyl$_{(C\leq6)}$, alkoxydiyl$_{(C\leq6)}$, alkylaminodiyl$_{(C\leq6)}$, or a substituted version of any of these groups;

or a compound of the formula:



(II)

wherein:

n is 0, 1, or 2;

Y_1 is –alkanediyl$_{(C\leq6)}$–, –C(O)–alkanediyl$_{(C\leq6)}$–, or a substituted version of any of these groups;

Y_2 is CH_2 or S;

R_1 is hydrogen, amino, halo, hydroxy, carboxy, or alkyl$_{(C\leq6)}$, alkenyl$_{(C\leq6)}$, alkynyl$_{(C\leq6)}$, cycloalkyl$_{(C\leq8)}$, heterocycloalkyl$_{(C\leq8)}$, amido$_{(C\leq6)}$, alkoxy$_{(C\leq6)}$, alkylsulfonyl$_{(C\leq6)}$, or a substituted version of any of these groups;

R_2 is hydrogen, amino, halo, hydroxy, carboxy, or alkyl$_{(C\leq6)}$, alkenyl$_{(C\leq6)}$, alkynyl$_{(C\leq6)}$, cycloalkyl$_{(C\leq8)}$, heterocycloalkyl$_{(C\leq8)}$, aryl$_{(C\leq12)}$, aralkyl$_{(C\leq12)}$, amido$_{(C\leq6)}$, alkoxy$_{(C\leq6)}$, alkylthio$_{(C\leq6)}$, alkylsulfonyl$_{(C\leq6)}$, or a substituted version of any of these groups;

R_2 and R_{15} are taken together and are alkanediyl$_{(C\leq6)}$, alkoxydiyl$_{(C\leq6)}$, alkylaminodiyl$_{(C\leq6)}$, or a substituted version of any of these groups;

R_3 is $NR_{11}R_{11}'$ or $C(O)NR_{12}R_{12}'$, wherein:

R_{11} and R_{11}' are each independently hydrogen, alkyl$_{(C\leq6)}$, substituted alkyl$_{(C\leq6)}$, acyl$_{(C\leq6)}$, or substituted acyl$_{(C\leq6)}$;

R_{12} and R_{12}' are each independently hydrogen, alkyl$_{(C\leq6)}$, or substituted alkyl$_{(C\leq6)}$;

R_4, R_5, and R_6 are each independently hydrogen, halo, alkyl$_{(C\leq6)}$, substituted alkyl$_{(C\leq6)}$, alkoxy$_{(C\leq6)}$, substituted alkoxy$_{(C\leq6)}$, acyloxy$_{(C\leq6)}$, or substituted acyloxy$_{(C\leq6)}$;

R_7 and R_7' are each independently hydrogen, carboxy, or alkyl$_{(C\leq8)}$, alkenyl$_{(C\leq8)}$, alkynyl$_{(C\leq8)}$, cycloalkyl$_{(C\leq8)}$, heterocycloalkyl$_{(C\leq8)}$, aryl$_{(C\leq12)}$, heteroaryl$_{(C\leq12)}$, aralkyl$_{(C\leq12)}$, heteroaralkyl$_{(C\leq12)}$, –alkanediyl$_{(C\leq6)}$–OR_{13}, or a substituted version of any of these groups wherein:

R_{13} is aralkyl$_{(C\leq12)}$ or substituted aralkyl$_{(C\leq12)}$;

R_7 and R_7' are taken together and are –alkanediyl$_{(C\leq7)}$–, –alkenediyl$_{(C\leq7)}$–, or a substituted version of either of these groups;

R_8, R_9, and R_{10} are each independently hydrogen, hydroxy, or alkyl$_{(C\leq6)}$, alkoxy$_{(C\leq6)}$, acyl$_{(C\leq6)}$, acyloxy$_{(C\leq6)}$, aralkyl$_{(C\leq12)}$, aralkoxy$_{(C\leq12)}$, or a substituted version of any of these groups;

X_1 is CR_{14} or N, wherein:

R_{14} is hydrogen, halo, hydroxy, or alkyl$_{(C\leq6)}$, alkenyl$_{(C\leq6)}$, alkynyl$_{(C\leq6)}$, alkoxy$_{(C\leq6)}$, alkylamino$_{(C\leq6)}$, –alkanediyl$_{(C\leq6)}$–heterocycloalkyl$_{(C\leq8)}$, or a substituted version of any of these groups; or

R_{14} and R_{15} are taken together and are alkanediyl$_{(C\leq6)}$, alkenediyl$_{(C\leq6)}$, alkoxydiyl$_{(C\leq6)}$, alkylaminodiyl$_{(C\leq6)}$, or a substituted version of any of these groups; and

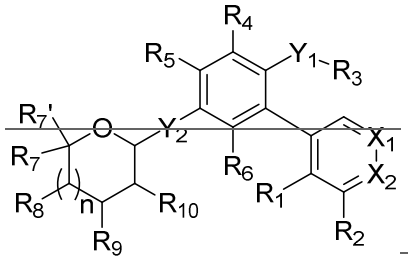
X_2 is CR_{15} or N, wherein:

R_{15} is hydrogen, halo, hydroxy, or alkyl$_{(C\leq6)}$, alkenyl$_{(C\leq6)}$, alkynyl$_{(C\leq6)}$, alkoxy$_{(C\leq6)}$, alkylamino$_{(C\leq6)}$, alkanediyl$_{(C\leq6)}$ heterocycloalkyl$_{(C\leq8)}$, or a substituted version of any of these groups;

R_{15} and R_{14} are taken together and are alkanediyl$_{(C\leq6)}$, alkenediyl$_{(C\leq6)}$, alkoxydiyl$_{(C\leq6)}$, alkylaminodiyl$_{(C\leq6)}$, or a substituted version of any of these groups; or

R_{15} and R_2 are taken together and are alkanediyl$_{(C\leq6)}$, alkoxydiyl$_{(C\leq6)}$, alkylaminodiyl$_{(C\leq6)}$, or a substituted version of any of these groups;

or a compound of the formula:



(II)

wherein:

n is 0, 1, or 2;

Y_1 is substituted −alkanediyl$_{(C\leq6)}$−, −C(O)−alkanediyl$_{(C\leq6)}$−, or substituted −C(O)−alkanediyl$_{(C\leq6)}$−;

Y_2 is CH_2, O, or S;

R_1 is hydrogen, amino, halo, hydroxy, carboxy, or alkyl$_{(C\leq6)}$, alkenyl$_{(C\leq6)}$, alkynyl$_{(C\leq6)}$, cycloalkyl$_{(C\leq8)}$, heterocycloalkyl$_{(C\leq8)}$, amido$_{(C\leq6)}$, alkoxy$_{(C\leq6)}$, alkylsulfonyl$_{(C\leq6)}$, or a substituted version of any of these groups;

R_2 is hydrogen, amino, halo, hydroxy, carboxy, or alkyl$_{(C\leq6)}$, alkenyl$_{(C\leq6)}$, alkynyl$_{(C\leq6)}$, cycloalkyl$_{(C\leq8)}$, heterocycloalkyl$_{(C\leq8)}$, aryl$_{(C\leq12)}$, aralkyl$_{(C\leq12)}$, amido$_{(C\leq6)}$, alkoxy$_{(C\leq6)}$, alkylthio$_{(C\leq6)}$, alkylsulfonyl$_{(C\leq6)}$, or a substituted version of any of these groups;

R_2 and R_{15} are taken together and are alkanediyl$_{(C\leq6)}$, alkoxydiyl$_{(C\leq6)}$, alkylaminodiyl$_{(C\leq6)}$, or a substituted version of any of these groups;

R_3 is $-NR_{11}R_{11}'$ or $-C(O)NR_{12}R_{12}'$, wherein:

R_{11} and R_{11}' are each independently hydrogen, alkyl$_{(C\leq6)}$, substituted alkyl$_{(C\leq6)}$, acyl$_{(C\leq6)}$, or substituted acyl$_{(C\leq6)}$;

R_{12} and R_{12}' are each independently hydrogen, alkyl$_{(C\leq6)}$, or substituted alkyl$_{(C\leq6)}$;

R_4, R_5, and R_6 are each independently hydrogen, halo, alkyl$_{(C\leq6)}$, substituted alkyl$_{(C\leq6)}$, alkoxy$_{(C\leq6)}$, substituted alkoxy$_{(C\leq6)}$, acyloxy$_{(C\leq6)}$, or substituted acyloxy$_{(C\leq6)}$;

R_7 and R_7' are each independently hydrogen, carboxy or alkyl$_{(C\leq8)}$, alkenyl$_{(C\leq8)}$, alkynyl$_{(C\leq8)}$, cycloalkyl$_{(C\leq8)}$, heterocycloalkyl$_{(C\leq8)}$, aryl$_{(C\leq12)}$, heteroaryl$_{(C\leq12)}$, aralkyl$_{(C\leq12)}$, heteroaralkyl$_{(C\leq12)}$, –alkanediyl$_{(C\leq6)}$–OR_{13}, or a substituted version of any of these groups wherein:

R_{13} is aralkyl$_{(C\leq12)}$ or substituted aralkyl$_{(C\leq12)}$; or

R_7 and R_7' are taken together and are alkanediyl$_{(C\leq7)}$, alkenediyl$_{(C\leq7)}$, or a substituted version of any of these groups;

R_8, R_9, and R_{10} are each independently hydrogen, hydroxy, or alkyl$_{(C\leq6)}$, alkoxy$_{(C\leq6)}$, acyl$_{(C\leq6)}$, acyloxy$_{(C\leq6)}$, aralkyl$_{(C\leq12)}$, aralkoxy$_{(C\leq12)}$, or a substituted version of any of these groups;

X_1 is CR_{14} or N, wherein:

R_{14} is hydrogen, halo, hydroxy, or alkyl$_{(C\leq6)}$, alkenyl$_{(C\leq6)}$, alkynyl$_{(C\leq6)}$, alkoxy$_{(C\leq6)}$, alkylamino$_{(C\leq6)}$, –alkanediyl$_{(C\leq6)}$–heterocycloalkyl$_{(C\leq8)}$, or a substituted version of any of these groups; or

R_{14} and R_{15} are taken together and are alkanediyl$_{(C\leq6)}$, alkenediyl$_{(C\leq6)}$, alkoxydiyl$_{(C\leq6)}$, alkylaminodiyl$_{(C\leq6)}$, or a substituted version of any of these groups; and

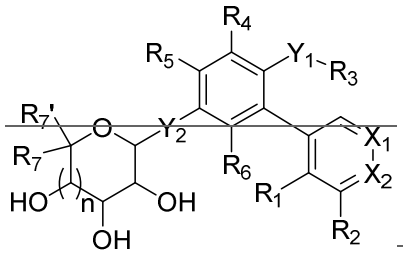
X_2 is CR_{15} or N, wherein:

R_{15} is hydrogen, halo, hydroxy, or alkyl$_{(C\leq6)}$, alkenyl$_{(C\leq6)}$, alkynyl$_{(C\leq6)}$, alkoxy$_{(C\leq6)}$, alkylamino$_{(C\leq6)}$, –alkanediyl$_{(C\leq6)}$–heterocycloalkyl$_{(C\leq8)}$, or a substituted version of any of these groups;

R_{15} and R_{14} are taken together and are alkanediyl$_{(C\leq6)}$, alkenediyl$_{(C\leq6)}$, alkoxydiyl$_{(C\leq6)}$, alkylaminodiyl$_{(C\leq6)}$, or a substituted version of any of these groups; or

R_{15} and R_2 are taken together and are alkanediyl$_{(C\leq6)}$, alkoxydiyl$_{(C\leq6)}$, alkylaminodiyl$_{(C\leq6)}$, or a substituted version of any of these groups;

or a compound of the formula:



(III)

wherein:

n is 1 or 2;

Y_1 is –alkanediyl$_{(C\leq6)}$–, –C(O)–alkanediyl$_{(C\leq6)}$–, or a substituted version of any of these groups;

Y_2 is CH_2, O, or S;

R_1 is hydrogen, amino, halo, hydroxy, carboxy, or alkyl$_{(C\leq6)}$, alkenyl$_{(C\leq6)}$, alkynyl$_{(C\leq6)}$, cycloalkyl$_{(C\leq8)}$, heterocycloalkyl$_{(C\leq8)}$, amido$_{(C\leq6)}$, alkoxy$_{(C\leq6)}$, alkylsulfonyl$_{(C\leq6)}$, or a substituted version of any of these groups;

R_2 is hydrogen, amino, halo, hydroxy, carboxy, or alkyl$_{(C\leq6)}$, alkenyl$_{(C\leq6)}$, alkynyl$_{(C\leq6)}$, cycloalkyl$_{(C\leq8)}$, heterocycloalkyl$_{(C\leq8)}$, aryl$_{(C\leq12)}$, aralkyl$_{(C\leq12)}$, amido$_{(C\leq6)}$, alkoxy$_{(C\leq6)}$, alkylthio$_{(C\leq6)}$, alkylsulfonyl$_{(C\leq6)}$, or a substituted version of any of these groups;

R_2 and R_{15} are taken together and are alkanediyl$_{(C\leq6)}$, alkoxydiyl$_{(C\leq6)}$, alkylaminodiyl$_{(C\leq6)}$, or a substituted version of any of these groups;

R_3 is $–NR_{11}R_{11}'$ or $–C(O)NR_{12}R_{12}'$, wherein:

R_{11} and R_{11}' are each independently hydrogen, alkyl$_{(C\leq6)}$, substituted alkyl$_{(C\leq6)}$, acyl$_{(C\leq6)}$, or substituted acyl$_{(C\leq6)}$;

R_{12} and R_{12}' are each independently hydrogen, alkyl$_{(C\leq6)}$, or substituted alkyl$_{(C\leq6)}$;

R_4, R_5, and R_6 are each independently hydrogen, halo, alkyl$_{(C\leq6)}$, substituted alkyl$_{(C\leq6)}$, alkoxy$_{(C\leq6)}$, substituted alkoxy$_{(C\leq6)}$, acyloxy$_{(C\leq6)}$, or substituted acyloxy$_{(C\leq6)}$;

R_7 and R_7' are each independently hydrogen, carboxy, or $alkyl_{(C\leq 8)}$, $alkenyl_{(C\leq 8)}$, $alkynyl_{(C\leq 8)}$, $cycloalkyl_{(C\leq 8)}$, $heterocycloalkyl_{(C\leq 8)}$, $aryl_{(C\leq 12)}$, $heteroaryl_{(C\leq 12)}$, $aralkyl_{(C\leq 12)}$, $heteroaralkyl_{(C\leq 12)}$, $alkanediyl_{(C\leq 6)}$-OR_{13}, or a substituted version of any of these groups wherein:

R_{13} is $aralkyl_{(C\leq 12)}$ or substituted $aralkyl_{(C\leq 12)}$; or

R_7 and R_7' are taken together and are $alkanediyl_{(C\leq 7)}$, $alkenediyl_{(C\leq 7)}$, or a substituted version of either of these groups;

X_1 is CR_{14} or N, wherein:

R_{14} is hydrogen, halo, hydroxy, or $alkyl_{(C\leq 6)}$, $alkenyl_{(C\leq 6)}$, $alkynyl_{(C\leq 6)}$, $alkoxy_{(C\leq 6)}$, $alkylamino_{(C\leq 6)}$, $alkanediyl_{(C\leq 6)}$-$heterocycloalkyl_{(C\leq 8)}$, or a substituted version of any of these groups; or

R_{14} and R_{15} are taken together and are $alkanediyl_{(C\leq 6)}$, $alkenediyl_{(C\leq 6)}$, $alkoxydiyl_{(C\leq 6)}$, $alkylaminodiyl_{(C\leq 6)}$, or a substituted version of any of these groups; and

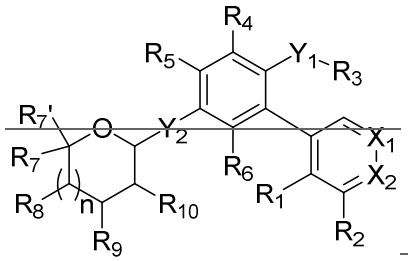
X_2 is CR_{15} or N, wherein:

R_{15} is hydrogen, halo, hydroxy, or $alkyl_{(C\leq 6)}$, $alkenyl_{(C\leq 6)}$, $alkynyl_{(C\leq 6)}$, $alkoxy_{(C\leq 6)}$, $alkylamino_{(C\leq 6)}$, $alkanediyl_{(C\leq 6)}$-$heterocycloalkyl_{(C\leq 8)}$, or a substituted version of any of these groups;

R_{15} and R_{14} are taken together and are $alkanediyl_{(C\leq 6)}$, $alkenediyl_{(C\leq 6)}$, $alkoxydiyl_{(C\leq 6)}$, $alkylaminodiyl_{(C\leq 6)}$, or a substituted version of any of these groups; or

R_{15} and R_2 are taken together and are $alkanediyl_{(C\leq 6)}$, $alkoxydiyl_{(C\leq 6)}$, $alkylaminodiyl_{(C\leq 6)}$, or a substituted version of any of these groups;

or a compound of the formula:



(II)

wherein:

n is 0, 1, or 2;

Y_1 is –alkanediyl$_{(C\leq6)}$–, –C(O)–alkanediyl$_{(C\leq6)}$–, or a substituted version of any of these groups;

Y_2 is CH_2, O, or S;

R_1 is hydrogen, amino, halo, hydroxy, carboxy, or alkyl$_{(C\leq6)}$, alkenyl$_{(C\leq6)}$, alkynyl$_{(C\leq6)}$, cycloalkyl$_{(C\leq8)}$, heterocycloalkyl$_{(C\leq8)}$, amido$_{(C\leq6)}$, alkoxy$_{(C\leq6)}$, alkylsulfonyl$_{(C\leq6)}$, or a substituted version of any of these groups;

R_2 is hydrogen, amino, halo, hydroxy, carboxy, or alkyl$_{(C\leq6)}$, alkenyl$_{(C\leq6)}$, alkynyl$_{(C\leq6)}$, cycloalkyl$_{(C\leq8)}$, heterocycloalkyl$_{(C\leq8)}$, aryl$_{(C\leq12)}$, aralkyl$_{(C\leq12)}$, amido$_{(C\leq6)}$, alkoxy$_{(C\leq6)}$, alkylthio$_{(C\leq6)}$, alkylsulfonyl$_{(C\leq6)}$, or a substituted version of any of these groups;

R_2 and R_{15} are taken together and are alkanediyl$_{(C\leq6)}$, alkoxydiyl$_{(C\leq6)}$, alkylaminodiyl$_{(C\leq6)}$, or a substituted version of any of these groups;

R_3 is $NR_{11}R_{11}'$ or $C(O)NR_{12}R_{12}'$, wherein:

R_{11} and R_{11}' are each independently hydrogen, alkyl$_{(C\leq6)}$, substituted alkyl$_{(C\leq6)}$, acyl$_{(C\leq6)}$, or substituted acyl$_{(C\leq6)}$;

R_{12} and R_{12}' are each independently hydrogen, alkyl$_{(C\leq6)}$, or substituted alkyl$_{(C\leq6)}$;

R_4, R_5, and R_6 are each independently hydrogen, halo, alkyl$_{(C\leq6)}$, substituted alkyl$_{(C\leq6)}$, alkoxy$_{(C\leq6)}$, substituted alkoxy$_{(C\leq6)}$, acyloxy$_{(C\leq6)}$, or substituted acyloxy$_{(C\leq6)}$;

R_7 is carboxy or alkyl$_{(C\leq8)}$, alkenyl$_{(C\leq8)}$, alkynyl$_{(C\leq8)}$, cycloalkyl$_{(C\leq8)}$, heterocycloalkyl$_{(C\leq8)}$, aryl$_{(C\leq12)}$, heteroaryl$_{(C\leq12)}$, aralkyl$_{(C\leq12)}$, heteroaralkyl$_{(C\leq12)}$, –alkanediyl$_{(C\leq6)}$–OR_{13}, or a substituted version of any of these groups wherein:

R_{13} is aralkyl$_{(C\leq12)}$ or substituted aralkyl$_{(C\leq12)}$;

R_7' is hydrogen, carboxy, or alkyl$_{(C\leq8)}$, alkenyl$_{(C\leq8)}$, alkynyl$_{(C\leq8)}$, cycloalkyl$_{(C\leq8)}$, heterocycloalkyl$_{(C\leq8)}$, aryl$_{(C\leq12)}$, heteroaryl$_{(C\leq12)}$, aralkyl$_{(C\leq12)}$, heteroaralkyl$_{(C\leq12)}$, –alkanediyl$_{(C\leq6)}$–OR_{13}, or a substituted version of any of these groups wherein:

R_{13} is aralkyl$_{(C\leq12)}$ or substituted aralkyl$_{(C\leq12)}$; or

R_7 and R_7' are taken together and are –alkanediyl$_{(C\leq7)}$–, –alkenediyl$_{(C\leq7)}$–, or a substituted version of either of these groups;

R_8 is alkoxy$_{(C3-6)}$, acyloxy$_{(C\leq6)}$, aralkoxy$_{(C\leq12)}$, or a substituted version of any of these groups;

R_9 and R_{10} are each independently hydroxy, or $alkyl_{(C\leq6)}$, $alkoxy_{(C\leq6)}$, $acyl_{(C\leq6)}$, $acyloxy_{(C\leq6)}$, $aralkyl_{(C\leq12)}$, $aralkoxy_{(C\leq12)}$, or a substituted version of any of these groups;

X_1 is CR_{14} or N, wherein:

R_{14} is hydrogen, halo, hydroxy, or $alkyl_{(C\leq6)}$, $alkenyl_{(C\leq6)}$, $alkynyl_{(C\leq6)}$, $alkoxy_{(C\leq6)}$, $alkylamino_{(C\leq6)}$, $-alkanediyl_{(C\leq6)}-heterocycloalkyl_{(C\leq8)}$, or a substituted version of any of these groups; or

R_{14} and R_{15} are taken together and are $alkanediyl_{(C\leq6)}$, $alkenediyl_{(C\leq6)}$, $alkoxydiyl_{(C\leq6)}$, $alkylaminodiyl_{(C\leq6)}$, or a substituted version of any of these groups; and

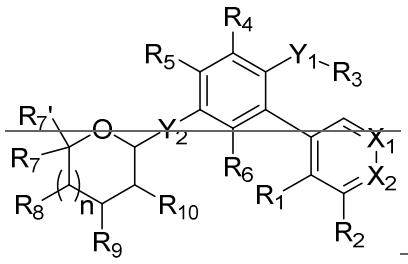
X_2 is CR_{15} or N, wherein:

R_{15} is hydrogen, halo, hydroxy, or $alkyl_{(C\leq6)}$, $alkenyl_{(C\leq6)}$, $alkynyl_{(C\leq6)}$, $alkoxy_{(C\leq6)}$, $alkylamino_{(C\leq6)}$, $-alkanediyl_{(C\leq6)}-heterocycloalkyl_{(C\leq8)}$, or a substituted version of any of these groups;

R_{15} and R_{14} are taken together and are $alkanediyl_{(C\leq6)}$, $alkenediyl_{(C\leq6)}$, $alkoxydiyl_{(C\leq6)}$, $alkylaminodiyl_{(C\leq6)}$, or a substituted version of any of these groups; or

R_{15} and R_2 are taken together and are $alkanediyl_{(C\leq6)}$, $alkoxydiyl_{(C\leq6)}$, $alkylaminodiyl_{(C\leq6)}$, or a substituted version of any of these groups;

or a compound of the formula:



(II)

wherein:

n is 0, 1, or 2;

Y_1 is $-alkanediyl_{(C\leq6)}-$, $-C(O)-alkanediyl_{(C\leq6)}-$, or a substituted version of any of these groups;

Y_2 is CH_2, O, or S;

R_1 is hydrogen, amino, halo, hydroxy, carboxy, or alkyl$_{(C\leq6)}$, alkenyl$_{(C\leq6)}$, alkynyl$_{(C\leq6)}$, cycloalkyl$_{(C\leq8)}$, heterocycloalkyl$_{(C\leq8)}$, amido$_{(C\leq6)}$, alkoxy$_{(C\leq6)}$, alkylsulfonyl$_{(C\leq6)}$, or a substituted version of any of these groups;

R_2 is hydrogen, amino, halo, hydroxy, carboxy, or alkyl$_{(C\leq6)}$, alkenyl$_{(C\leq6)}$, alkynyl$_{(C\leq6)}$, cycloalkyl$_{(C\leq8)}$, heterocycloalkyl$_{(C\leq8)}$, aryl$_{(C\leq12)}$, aralkyl$_{(C\leq12)}$, amido$_{(C\leq6)}$, alkoxy$_{(C\leq6)}$, alkylthio$_{(C\leq6)}$, alkylsulfonyl$_{(C\leq6)}$, or a substituted version of any of these groups;

R_2 and R_{15} are taken together and are alkanediyl$_{(C\leq6)}$, alkoxydiyl$_{(C\leq6)}$, alkylaminodiyl$_{(C\leq6)}$, or a substituted version of any of these groups;

R_3 is $NR_{11}R_{11}'$ or $C(O)NR_{12}R_{12}'$, wherein:

R_{11} and R_{11}' are each independently hydrogen, alkyl$_{(C\leq6)}$, substituted alkyl$_{(C\leq6)}$;

R_{12} and R_{12}' are each independently hydrogen, alkyl$_{(C\leq6)}$, or substituted alkyl$_{(C\leq6)}$;

R_4, R_5, and R_6 are each independently hydrogen, halo, alkyl$_{(C\leq6)}$, substituted alkyl$_{(C\leq6)}$, alkoxy$_{(C\leq6)}$, substituted alkoxy$_{(C\leq6)}$, acyloxy$_{(C\leq6)}$, or substituted acyloxy$_{(C\leq6)}$;

R_7 and R_7' are each independently hydrogen, carboxy or alkyl$_{(C\leq8)}$, alkenyl$_{(C\leq8)}$, alkynyl$_{(C\leq8)}$, cycloalkyl$_{(C\leq8)}$, heterocycloalkyl$_{(C\leq8)}$, aryl$_{(C\leq12)}$, heteroaryl$_{(C\leq12)}$, aralkyl$_{(C\leq12)}$, heteroaralkyl$_{(C\leq12)}$, alkanediyl$_{(C\leq6)}$-OR_{13}, or a substituted version of any of these groups wherein:

R_{13} is aralkyl$_{(C\leq12)}$ or substituted aralkyl$_{(C\leq12)}$;

R_7 and R_7' are taken together and are −alkanediyl$_{(C\leq7)}$−, −alkenediyl$_{(C\leq7)}$−, or a substituted version of either of these groups;

R_8, R_9, and R_{10} are each independently hydrogen, hydroxy, or alkyl$_{(C\leq6)}$, alkoxy$_{(C\leq6)}$, acyl$_{(C\leq6)}$, acyloxy$_{(C\leq6)}$, aralkyl$_{(C\leq12)}$, aralkoxy$_{(C\leq12)}$, or a substituted version of any of these groups;

X_1 is CR_{14} or N, wherein:

R_{14} is hydrogen, halo, hydroxy, or alkyl$_{(C\leq6)}$, alkenyl$_{(C\leq6)}$, alkynyl$_{(C\leq6)}$, alkoxy$_{(C\leq6)}$, alkylamino$_{(C\leq6)}$, −alkanediyl$_{(C\leq6)}$−heterocycloalkyl$_{(C\leq8)}$, or a substituted version of any of these groups; or

R_{14} and R_{15} are taken together and are alkanediyl$_{(C\leq6)}$, alkenediyl$_{(C\leq6)}$, alkoxydiyl$_{(C\leq6)}$, alkylaminodiyl$_{(C\leq6)}$, or a substituted version of any of these groups; and

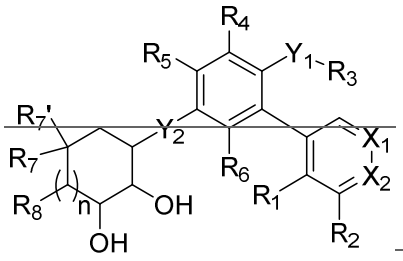
X_2 is CR_{15} or N, wherein:

R_{15} is hydrogen, halo, hydroxy, or alkyl$_{(C\leq6)}$, alkenyl$_{(C\leq6)}$, alkynyl$_{(C\leq6)}$, alkoxy$_{(C\leq6)}$, alkylamino$_{(C\leq6)}$, alkanediyl$_{(C\leq6)}$ heterocycloalkyl$_{(C\leq8)}$, or a substituted version of any of these groups;

R_{15} and R_{14} are taken together and are alkanediyl$_{(C\leq6)}$, alkenediyl$_{(C\leq6)}$, alkoxydiyl$_{(C\leq6)}$, alkylaminodiyl$_{(C\leq6)}$, or a substituted version of any of these groups; or

R_{15} and R_2 are taken together and are alkanediyl$_{(C\leq6)}$, alkoxydiyl$_{(C\leq6)}$, alkylaminodiyl$_{(C\leq6)}$, or a substituted version of any of these groups;

or a compound of the formula:



(IV)

wherein:

n is 0, 1, or 2;

Y_1 is –alkanediyl$_{(C\leq6)}$–, –C(O)–alkanediyl$_{(C\leq6)}$–, or a substituted version of any of these groups;

Y_2 is CH_2, O, or S;

R_1 is hydrogen, amino, halo, hydroxy, carboxy, or alkyl$_{(C\leq6)}$, alkenyl$_{(C\leq6)}$, alkynyl$_{(C\leq6)}$, cycloalkyl$_{(C\leq8)}$, heterocycloalkyl$_{(C\leq8)}$, amido$_{(C\leq6)}$, alkoxy$_{(C\leq6)}$, alkylsulfonyl$_{(C\leq6)}$, or a substituted version of any of these groups;

R_2 is hydrogen, amino, halo, hydroxy, carboxy, or alkyl$_{(C\leq6)}$, alkenyl$_{(C\leq6)}$, alkynyl$_{(C\leq6)}$, cycloalkyl$_{(C\leq8)}$, heterocycloalkyl$_{(C\leq8)}$, aryl$_{(C\leq12)}$, aralkyl$_{(C\leq12)}$, amido$_{(C\leq6)}$, alkoxy$_{(C\leq6)}$, alkylthio$_{(C\leq6)}$, alkylsulfonyl$_{(C\leq6)}$, or a substituted version of any of these groups;

R_2 and R_{15} are taken together and are alkanediyl$_{(C\leq6)}$, alkoxydiyl$_{(C\leq6)}$, alkylaminodiyl$_{(C\leq6)}$, or a substituted version of any of these groups;

R_3 is $NR_{11}R_{11}'$ or $C(O)NR_{12}R_{12}'$, wherein:

R_{11} and R_{11}' are each independently hydrogen, $alkyl_{(C\leq6)}$, substituted $alkyl_{(C\leq6)}$, $acyl_{(C\leq6)}$, or substituted $acyl_{(C\leq6)}$;

R_{12} and R_{12}' are each independently hydrogen, $alkyl_{(C\leq6)}$, or substituted $alkyl_{(C\leq6)}$;

R_4, R_5, and R_6 are each independently hydrogen, halo, $alkyl_{(C\leq6)}$, substituted $alkyl_{(C\leq6)}$, $alkoxy_{(C\leq6)}$, substituted $alkoxy_{(C\leq6)}$, $acyloxy_{(C\leq6)}$, or substituted $acyloxy_{(C\leq6)}$;

R_7 is carboxy or $alkyl_{(C\leq8)}$, $alkenyl_{(C\leq8)}$, $alkynyl_{(C\leq8)}$, $cycloalkyl_{(C\leq8)}$, $heterocycloalkyl_{(C\leq8)}$, $aryl_{(C\leq12)}$, $heteroaryl_{(C\leq12)}$, $aralkyl_{(C\leq12)}$, $heteroaralkyl_{(C\leq12)}$, $-alkanediyl_{(C\leq6)}-OR_{13}$, or a substituted version of any of these groups wherein:

R_{13} is $alkyl_{(C\leq12)}$, substituted $alkyl_{(C\leq12)}$, $aralkyl_{(C\leq12)}$, or substituted $aralkyl_{(C\leq12)}$;

R_7' is hydrogen, carboxy or $alkyl_{(C\leq8)}$, $alkenyl_{(C\leq8)}$, $alkynyl_{(C\leq8)}$, $cycloalkyl_{(C\leq8)}$, $heterocycloalkyl_{(C\leq8)}$, $aryl_{(C\leq12)}$, $heteroaryl_{(C\leq12)}$, $aralkyl_{(C\leq12)}$, $heteroaralkyl_{(C\leq12)}$, $-alkanediyl_{(C\leq6)}-OR_{13}$, or a substituted version of any of these groups wherein:

R_{13} is $alkyl_{(C\leq12)}$, substituted $alkyl_{(C\leq12)}$, $aralkyl_{(C\leq12)}$, or substituted $aralkyl_{(C\leq12)}$;

R_7 and R_7' are taken together and are $-alkanediyl_{(C\leq7)}-$, $-alkenediyl_{(C\leq7)}-$, or a substituted version of either of these groups;

R_8 is halo, hydroxy, or $alkyl_{(C\leq6)}$, $alkoxy_{(C\leq6)}$, $acyl_{(C\leq6)}$, $acyloxy_{(C\leq6)}$, $aralkyl_{(C\leq12)}$, $aralkoxy_{(C\leq12)}$, or a substituted version of any of these groups;

X_1 is CR_{14} or N, wherein:

R_{14} is hydrogen, halo, hydroxy, or $alkyl_{(C\leq6)}$, $alkenyl_{(C\leq6)}$, $alkynyl_{(C\leq6)}$, $alkoxy_{(C\leq6)}$, $alkylamino_{(C\leq6)}$, $-alkanediyl_{(C\leq6)}-heterocycloalkyl_{(C\leq8)}$, or a substituted version of any of these groups; or

R_{14} and R_{15} are taken together and are $alkanediyl_{(C\leq6)}$, $alkenediyl_{(C\leq6)}$, $alkoxydiyl_{(C\leq6)}$, $alkylaminodiyl_{(C\leq6)}$, or a substituted version of any of these groups; and

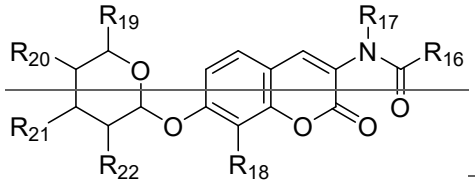
X_2 is CR_{15} or N, wherein:

R_{15} is hydrogen, halo, hydroxy, or $alkyl_{(C\leq6)}$, $alkenyl_{(C\leq6)}$, $alkynyl_{(C\leq6)}$, $alkoxy_{(C\leq6)}$, $alkylamino_{(C\leq6)}$, $-alkanediyl_{(C\leq6)}-heterocycloalkyl_{(C\leq8)}$, or a substituted version of any of these groups;

R_{15} and R_{14} are taken together and are alkanediyl$_{(C\leq 6)}$, alkenediyl$_{(C\leq 6)}$, alkoxydiyl$_{(C\leq 6)}$, alkylaminodiyl$_{(C\leq 6)}$, or a substituted version of any of these groups; or

R_{15} and R_2 are taken together and are alkanediyl$_{(C\leq 6)}$, alkoxydiyl$_{(C\leq 6)}$, alkylaminodiyl$_{(C\leq 6)}$, or a substituted version of any of these groups;

or a compound of the formula:



(V)

wherein:

R_{16} is alkyl$_{(C\leq 12)}$, cycloalkyl$_{(C\leq 12)}$, aryl$_{(C\leq 18)}$, heteroaryl$_{(C\leq 18)}$, or a substituted version thereof;

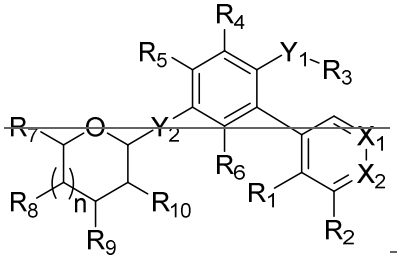
R_{17} and R_{18} are each independently hydrogen, alkyl$_{(C\leq 8)}$, or substituted alkyl$_{(C\leq 8)}$;

R_{19} is alkyl$_{(C\leq 8)}$, alkenyl$_{(C\leq 8)}$, alkynyl$_{(C\leq 8)}$, cycloalkyl$_{(C\leq 8)}$, heterocycloalkyl$_{(C\leq 8)}$, aryl$_{(C\leq 12)}$, heteroaryl$_{(C\leq 12)}$, aralkyl$_{(C\leq 12)}$, heteroaralkyl$_{(C\leq 12)}$, or a substituted version of any of these groups

R_{20}, R_{21}, and R_{22} are each independently hydroxy, alkoxy$_{(C\leq 12)}$, substituted alkoxy$_{(C\leq 12)}$, or a protected hydroxy group;

or a pharmaceutically acceptable salt of any of the above formulas.

3. The compound of either claim 1 or claim 2 further defined as:



(I)

wherein:

n is 0, 1, or 2;

Y_1 is alkanediyl$_{(C\leq 6)}$, C(O) alkanediyl$_{(C\leq 6)}$, or a substituted version of any of these groups;

Y_2 is CH_2, O, or S;

R_1 is hydrogen, amino, halo, hydroxy, carboxy, or alkyl$_{(C\leq6)}$, alkenyl$_{(C\leq6)}$, alkynyl$_{(C\leq6)}$, cycloalkyl$_{(C\leq8)}$, heterocycloalkyl$_{(C\leq8)}$, amido$_{(C\leq6)}$, alkoxy$_{(C\leq6)}$, alkylsulfonyl$_{(C\leq6)}$, or a substituted version of any of these groups;

R_2 is hydrogen, amino, halo, hydroxy, carboxy, or alkyl$_{(C\leq6)}$, alkenyl$_{(C\leq6)}$, alkynyl$_{(C\leq6)}$, cycloalkyl$_{(C\leq8)}$, heterocycloalkyl$_{(C\leq8)}$, aryl$_{(C\leq12)}$, aralkyl$_{(C\leq12)}$, amido$_{(C\leq6)}$, alkoxy$_{(C\leq6)}$, alkylthio$_{(C\leq6)}$, alkylsulfonyl$_{(C\leq6)}$, or a substituted version of any of these groups;

R_2 and R_{15} are taken together and are alkanediyl$_{(C\leq6)}$, alkoxydiyl$_{(C\leq6)}$, alkylaminodiyl$_{(C\leq6)}$, or a substituted version of any of these groups;

R_3 is $NR_{11}R_{11}'$ or $C(O)NR_{12}R_{12}'$, wherein:

R_{11} and R_{11}' are each independently hydrogen, alkyl$_{(C\leq6)}$, substituted alkyl$_{(C\leq6)}$, acyl$_{(C\leq6)}$, or substituted acyl$_{(C\leq6)}$;

R_{12} and R_{12}' are each independently hydrogen, alkyl$_{(C\leq6)}$, or substituted alkyl$_{(C\leq6)}$;

R_4, R_5, and R_6 are each independently hydrogen, halo, alkyl$_{(C\leq6)}$, substituted alkyl$_{(C\leq6)}$, alkoxy$_{(C\leq6)}$, substituted alkoxy$_{(C\leq6)}$, acyloxy$_{(C\leq6)}$, or substituted acyloxy$_{(C\leq6)}$;

R_7 is carboxy or alkyl$_{(C\leq6)}$, alkenyl$_{(C\leq8)}$, alkynyl$_{(C\leq8)}$, cycloalkyl$_{(C\leq8)}$, heterocycloalkyl$_{(C\leq8)}$, aryl$_{(C\leq12)}$, heteroaryl$_{(C\leq12)}$, aralkyl$_{(C\leq12)}$, heteroaralkyl$_{(C\leq12)}$, alkanediyl$_{(C\leq6)}$-OR_{13}, or a substituted version of any of these groups wherein:

R_{13} is aralkyl$_{(C\leq12)}$ or substituted aralkyl$_{(C\leq12)}$;

R_8, R_9, and R_{10} are each independently hydrogen, hydroxy, or alkyl$_{(C\leq6)}$, alkoxy$_{(C\leq6)}$, acyl$_{(C\leq6)}$, acyloxy$_{(C\leq6)}$, aralkyl$_{(C\leq12)}$, aralkoxy$_{(C\leq12)}$, or a substituted version of any of these groups;

X_1 is CR_{14} or N, wherein:

R_{14} is hydrogen, halo, hydroxy, or alkyl$_{(C\leq6)}$, alkenyl$_{(C\leq6)}$, alkynyl$_{(C\leq6)}$, alkoxy$_{(C\leq6)}$, alkylamino$_{(C\leq6)}$, alkanediyl$_{(C\leq6)}$-heterocycloalkyl$_{(C\leq8)}$, or a substituted version of any of these groups; or

R_{14} and R_{15} are taken together and are alkanediyl$_{(C\leq6)}$, alkenediyl$_{(C\leq6)}$, alkoxydiyl$_{(C\leq6)}$, alkylaminodiyl$_{(C\leq6)}$, or a substituted version of any of these groups; and

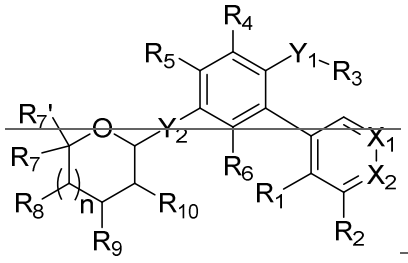
X_2 is CR_{15} or N, wherein:

R_{15} is hydrogen, halo, hydroxy, or alkyl$_{(C\leq6)}$, alkenyl$_{(C\leq6)}$, alkynyl$_{(C\leq6)}$, alkoxy$_{(C\leq6)}$, alkylamino$_{(C\leq6)}$, –alkanediyl$_{(C\leq6)}$–heterocycloalkyl$_{(C\leq8)}$, or a substituted version of any of these groups;

R_{15} and R_{14} are taken together and are alkanediyl$_{(C\leq6)}$, alkenediyl$_{(C\leq6)}$, alkoxydiyl$_{(C\leq6)}$, alkylaminodiyl$_{(C\leq6)}$, or a substituted version of any of these groups; or

R_{15} and R_2 are taken together and are alkanediyl$_{(C\leq6)}$, alkoxydiyl$_{(C\leq6)}$, alkylaminodiyl$_{(C\leq6)}$, or a substituted version of any of these groups;

or a compound of the formula:



(II)

wherein:

n is 0, 1, or 2;

Y_1 is –alkanediyl$_{(C\leq6)}$–, –C(O)–alkanediyl$_{(C\leq6)}$–, or a substituted version of any of these groups;

Y_2 is CH_2, O, or S;

R_1 is hydrogen, amino, halo, hydroxy, carboxy, or alkyl$_{(C\leq6)}$, alkenyl$_{(C\leq6)}$, alkynyl$_{(C\leq6)}$, cycloalkyl$_{(C\leq8)}$, heterocycloalkyl$_{(C\leq8)}$, amido$_{(C\leq6)}$, alkoxy$_{(C\leq6)}$, alkylsulfonyl$_{(C\leq6)}$, or a substituted version of any of these groups;

R_2 is hydrogen, amino, halo, hydroxy, carboxy, or alkyl$_{(C\leq6)}$, alkenyl$_{(C\leq6)}$, alkynyl$_{(C\leq6)}$, cycloalkyl$_{(C\leq8)}$, heterocycloalkyl$_{(C\leq8)}$, aryl$_{(C\leq12)}$, aralkyl$_{(C\leq12)}$, amido$_{(C\leq6)}$, alkoxy$_{(C\leq6)}$, alkylthio$_{(C\leq6)}$, alkylsulfonyl$_{(C\leq6)}$, or a substituted version of any of these groups;

R_2 and R_{15} are taken together and are alkanediyl$_{(C\leq6)}$, alkoxydiyl$_{(C\leq6)}$, alkylaminodiyl$_{(C\leq6)}$, or a substituted version of any of these groups;

R_3 is $NR_{11}R_{11}'$ or $C(O)NR_{12}R_{12}'$, wherein:

R_{11} and R_{11}' are each independently hydrogen, alkyl$_{(C\leq6)}$, substituted alkyl$_{(C\leq6)}$, acyl$_{(C\leq6)}$, or substituted acyl$_{(C\leq6)}$;

R_{12} and R_{12}' are each independently hydrogen, $alkyl_{(C\leq6)}$, or substituted $alkyl_{(C\leq6)}$;

R_4, R_5, and R_6 are each independently hydrogen, halo, $alkyl_{(C\leq6)}$, substituted $alkyl_{(C\leq6)}$, $alkoxy_{(C\leq6)}$, substituted $alkoxy_{(C\leq6)}$, $acyloxy_{(C\leq6)}$, or substituted $acyloxy_{(C\leq6)}$;

R_7 is carboxy or $alkyl_{(C3\text{-}8)}$, $alkenyl_{(C\leq8)}$, $alkynyl_{(C\leq8)}$, $cycloalkyl_{(C\leq8)}$, $heterocycloalkyl_{(C\leq8)}$, $aryl_{(C\leq12)}$, $heteroaryl_{(C\leq12)}$, $aralkyl_{(C\leq12)}$, $heteroaralkyl_{(C\leq12)}$, $-alkanediyl_{(C\leq6)}-OR_{13}$, or a substituted version of any of these groups wherein:

R_{13} is $aralkyl_{(C\leq12)}$ or substituted $aralkyl_{(C\leq12)}$;

R_7' is hydrogen, carboxy, or $alkyl_{(C3\text{-}8)}$, $alkenyl_{(C\leq8)}$, $alkynyl_{(C\leq8)}$, $cycloalkyl_{(C\leq8)}$, $heterocycloalkyl_{(C\leq8)}$, $aryl_{(C\leq12)}$, $heteroaryl_{(C\leq12)}$, $aralkyl_{(C\leq12)}$, $heteroaralkyl_{(C\leq12)}$, $-alkanediyl_{(C\leq6)}-OR_{13}$, or a substituted version of any of these groups wherein:

R_{13} is $aralkyl_{(C\leq12)}$ or substituted $aralkyl_{(C\leq12)}$; or

R_7 and R_7' are taken together and are $-alkanediyl_{(C\leq7)}-$, $-alkenediyl_{(C\leq7)}-$, or a substituted version of either of these groups;

R_8, R_9, and R_{10} are each independently hydrogen, hydroxy, or $alkyl_{(C\leq6)}$, $alkoxy_{(C\leq6)}$, $acyl_{(C\leq6)}$, $acyloxy_{(C\leq6)}$, $aralkyl_{(C\leq12)}$, $aralkoxy_{(C\leq12)}$, or a substituted version of any of these groups;

X_1 is CR_{14} or N, wherein:

R_{14} is hydrogen, halo, hydroxy, or $alkyl_{(C\leq6)}$, $alkenyl_{(C\leq6)}$, $alkynyl_{(C\leq6)}$, $alkoxy_{(C\leq6)}$, $alkylamino_{(C\leq6)}$, $-alkanediyl_{(C\leq6)}-heterocycloalkyl_{(C\leq8)}$, or a substituted version of any of these groups; or

R_{14} and R_{15} are taken together and are $alkanediyl_{(C\leq6)}$, $alkenediyl_{(C\leq6)}$, $alkoxydiyl_{(C\leq6)}$, $alkylaminodiyl_{(C\leq6)}$, or a substituted version of any of these groups; and

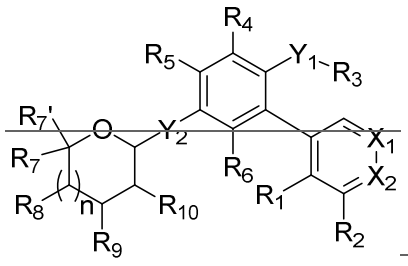
X_2 is CR_{15} or N, wherein:

R_{15} is hydrogen, halo, hydroxy, or $alkyl_{(C\leq6)}$, $alkenyl_{(C\leq6)}$, $alkynyl_{(C\leq6)}$, $alkoxy_{(C\leq6)}$, $alkylamino_{(C\leq6)}$, $-alkanediyl_{(C\leq6)}-heterocycloalkyl_{(C\leq8)}$, or a substituted version of any of these groups;

R_{15} and R_{14} are taken together and are $alkanediyl_{(C\leq6)}$, $alkenediyl_{(C\leq6)}$, $alkoxydiyl_{(C\leq6)}$, $alkylaminodiyl_{(C\leq6)}$, or a substituted version of any of these groups; or

~~R_{15} and R_2 are taken together and are alkanediyl$_{(C\leq6)}$, alkoxydiyl$_{(C\leq6)}$, alkylaminodiyl$_{(C\leq6)}$, or a substituted version of any of these groups;~~

~~or a compound of the formula:~~



~~(II)~~

~~wherein:~~

~~n is 0, 1, or 2;~~

~~Y_1 is alkanediyl$_{(C\leq6)}$, C(O) alkanediyl$_{(C\leq6)}$, or a substituted version of any of these groups;~~

~~Y_2 is CH_2 or S;~~

~~R_1 is hydrogen, amino, halo, hydroxy, carboxy, or alkyl$_{(C\leq6)}$, alkenyl$_{(C\leq6)}$, alkynyl$_{(C\leq6)}$, cycloalkyl$_{(C\leq8)}$, heterocycloalkyl$_{(C\leq8)}$, amido$_{(C\leq6)}$, alkoxy$_{(C\leq6)}$, alkylsulfonyl$_{(C\leq6)}$, or a substituted version of any of these groups;~~

~~R_2 is hydrogen, amino, halo, hydroxy, carboxy, or alkyl$_{(C\leq6)}$, alkenyl$_{(C\leq6)}$, alkynyl$_{(C\leq6)}$, cycloalkyl$_{(C\leq8)}$, heterocycloalkyl$_{(C\leq8)}$, aryl$_{(C\leq12)}$, aralkyl$_{(C\leq12)}$, amido$_{(C\leq6)}$, alkoxy$_{(C\leq6)}$, alkylthio$_{(C\leq6)}$, alkylsulfonyl$_{(C\leq6)}$, or a substituted version of any of these groups;~~

~~R_2 and R_{15} are taken together and are alkanediyl$_{(C\leq6)}$, alkoxydiyl$_{(C\leq6)}$, alkylaminodiyl$_{(C\leq6)}$, or a substituted version of any of these groups;~~

~~R_3 is $-NR_{11}R_{11}'$ or $-C(O)NR_{12}R_{12}'$, wherein:~~

~~R_{11} and R_{11}' are each independently hydrogen, alkyl$_{(C\leq6)}$, substituted alkyl$_{(C\leq6)}$, acyl$_{(C\leq6)}$, or substituted acyl$_{(C\leq6)}$;~~

~~R_{12} and R_{12}' are each independently hydrogen, alkyl$_{(C\leq6)}$, or substituted alkyl$_{(C\leq6)}$;~~

~~R_4, R_5, and R_6 are each independently hydrogen, halo, alkyl$_{(C\leq6)}$, substituted alkyl$_{(C\leq6)}$, alkoxy$_{(C\leq6)}$, substituted alkoxy$_{(C\leq6)}$, acyloxy$_{(C\leq6)}$, or substituted acyloxy$_{(C\leq6)}$;~~

~~R_7 and R_7' are each independently hydrogen, carboxy, or alkyl$_{(C\leq8)}$, alkenyl$_{(C\leq8)}$, alkynyl$_{(C\leq8)}$, cycloalkyl$_{(C\leq8)}$, heterocycloalkyl$_{(C\leq8)}$, aryl$_{(C\leq12)}$, heteroaryl$_{(C\leq12)}$,~~

~~aralkyl$_{(C\leq12)}$, heteroaralkyl$_{(C\leq12)}$, —alkanediyl$_{(C\leq6)}$—OR$_{13}$, or a substituted version of any of these groups wherein:~~

~~R$_{13}$ is aralkyl$_{(C\leq12)}$ or substituted aralkyl$_{(C\leq12)}$;~~

~~R$_7$ and R$_7$′ are taken together and are —alkanediyl$_{(C\leq7)}$—, —alkenediyl$_{(C\leq7)}$—, or a substituted version of either of these groups;~~

~~R$_8$, R$_9$, and R$_{10}$ are each independently hydrogen, hydroxy, or alkyl$_{(C\leq6)}$, alkoxy$_{(C\leq6)}$, acyl$_{(C\leq6)}$, acyloxy$_{(C\leq6)}$, aralkyl$_{(C\leq12)}$, aralkoxy$_{(C\leq12)}$, or a substituted version of any of these groups;~~

~~X$_1$ is CR$_{14}$ or N, wherein:~~

~~R$_{14}$ is hydrogen, halo, hydroxy, or alkyl$_{(C\leq6)}$, alkenyl$_{(C\leq6)}$, alkynyl$_{(C\leq6)}$, alkoxy$_{(C\leq6)}$, alkylamino$_{(C\leq6)}$, —alkanediyl$_{(C\leq6)}$—heterocycloalkyl$_{(C\leq8)}$, or a substituted version of any of these groups; or~~

~~R$_{14}$ and R$_{15}$ are taken together and are alkanediyl$_{(C\leq6)}$, alkenediyl$_{(C\leq6)}$, alkoxydiyl$_{(C\leq6)}$, alkylaminodiyl$_{(C\leq6)}$, or a substituted version of any of these groups; and~~

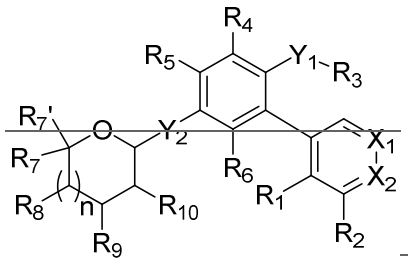
~~X$_2$ is CR$_{15}$ or N, wherein:~~

~~R$_{15}$ is hydrogen, halo, hydroxy, or alkyl$_{(C\leq6)}$, alkenyl$_{(C\leq6)}$, alkynyl$_{(C\leq6)}$, alkoxy$_{(C\leq6)}$, alkylamino$_{(C\leq6)}$, —alkanediyl$_{(C\leq6)}$—heterocycloalkyl$_{(C\leq8)}$, or a substituted version of any of these groups;~~

~~R$_{15}$ and R$_{14}$ are taken together and are alkanediyl$_{(C\leq6)}$, alkenediyl$_{(C\leq6)}$, alkoxydiyl$_{(C\leq6)}$, alkylaminodiyl$_{(C\leq6)}$, or a substituted version of any of these groups; or~~

~~R$_{15}$ and R$_2$ are taken together and are alkanediyl$_{(C\leq6)}$, alkoxydiyl$_{(C\leq6)}$, alkylaminodiyl$_{(C\leq6)}$, or a substituted version of any of these groups;~~

~~or a compound of the formula:~~



~~(II)~~

~~wherein:~~

n is 0, 1, or 2;

Y_1 is substituted –alkanediyl$_{(C\leq 6)}$–, –C(O)–alkanediyl$_{(C\leq 6)}$–, or substituted –C(O)–alkanediyl$_{(C\leq 6)}$–;

Y_2 is CH_2, O, or S;

R_1 is hydrogen, amino, halo, hydroxy, carboxy, or alkyl$_{(C\leq 6)}$, alkenyl$_{(C\leq 6)}$, alkynyl$_{(C\leq 6)}$, cycloalkyl$_{(C\leq 8)}$, heterocycloalkyl$_{(C\leq 8)}$, amido$_{(C\leq 6)}$, alkoxy$_{(C\leq 6)}$, alkylsulfonyl$_{(C\leq 6)}$, or a substituted version of any of these groups;

R_2 is hydrogen, amino, halo, hydroxy, carboxy, or alkyl$_{(C\leq 6)}$, alkenyl$_{(C\leq 6)}$, alkynyl$_{(C\leq 6)}$, cycloalkyl$_{(C\leq 8)}$, heterocycloalkyl$_{(C\leq 8)}$, aryl$_{(C\leq 12)}$, aralkyl$_{(C\leq 12)}$, amido$_{(C\leq 6)}$, alkoxy$_{(C\leq 6)}$, alkylthio$_{(C\leq 6)}$, alkylsulfonyl$_{(C\leq 6)}$, or a substituted version of any of these groups;

R_2 and R_{15} are taken together and are alkanediyl$_{(C\leq 6)}$, alkoxydiyl$_{(C\leq 6)}$, alkylaminodiyl$_{(C\leq 6)}$, or a substituted version of any of these groups;

R_3 is $–NR_{11}R_{11}'$ or $–C(O)NR_{12}R_{12}'$, wherein:

R_{11} and R_{11}' are each independently hydrogen, alkyl$_{(C\leq 6)}$, substituted alkyl$_{(C\leq 6)}$, acyl$_{(C\leq 6)}$, or substituted acyl$_{(C\leq 6)}$;

R_{12} and R_{12}' are each independently hydrogen, alkyl$_{(C\leq 6)}$, or substituted alkyl$_{(C\leq 6)}$;

R_4, R_5, and R_6 are each independently hydrogen, halo, alkyl$_{(C\leq 6)}$, substituted alkyl$_{(C\leq 6)}$, alkoxy$_{(C\leq 6)}$, substituted alkoxy$_{(C\leq 6)}$, acyloxy$_{(C\leq 6)}$, or substituted acyloxy$_{(C\leq 6)}$;

R_7 and R_7' are each independently hydrogen, carboxy or alkyl$_{(C\leq 8)}$, alkenyl$_{(C\leq 8)}$, alkynyl$_{(C\leq 8)}$, cycloalkyl$_{(C\leq 8)}$, heterocycloalkyl$_{(C\leq 8)}$, aryl$_{(C\leq 12)}$, heteroaryl$_{(C\leq 12)}$, aralkyl$_{(C\leq 12)}$, heteroaralkyl$_{(C\leq 12)}$, alkanediyl$_{(C\leq 6)}$–OR_{13}, or a substituted version of any of these groups wherein:

R_{13} is aralkyl$_{(C\leq 12)}$ or substituted aralkyl$_{(C\leq 12)}$; or

R_7 and R_7' are taken together and are alkanediyl$_{(C\leq 7)}$, alkenediyl$_{(C\leq 7)}$, or a substituted version of any of these groups;

R_8, R_9, and R_{10} are each independently hydrogen, hydroxy, or alkyl$_{(C\leq 6)}$, alkoxy$_{(C\leq 6)}$, acyl$_{(C\leq 6)}$, acyloxy$_{(C\leq 6)}$, aralkyl$_{(C\leq 12)}$, aralkoxy$_{(C\leq 12)}$, or a substituted version of any of these groups;

X_1 is CR_{14} or N, wherein:

R_{14} is hydrogen, halo, hydroxy, or alkyl$_{(C\leq 6)}$, alkenyl$_{(C\leq 6)}$, alkynyl$_{(C\leq 6)}$, alkoxy$_{(C\leq 6)}$, alkylamino$_{(C\leq 6)}$, –alkanediyl$_{(C\leq 6)}$–heterocycloalkyl$_{(C\leq 8)}$, or a substituted version of any of these groups; or

R_{14} and R_{15} are taken together and are alkanediyl$_{(C\leq 6)}$, alkenediyl$_{(C\leq 6)}$, alkoxydiyl$_{(C\leq 6)}$, alkylaminodiyl$_{(C\leq 6)}$, or a substituted version of any of these groups; and

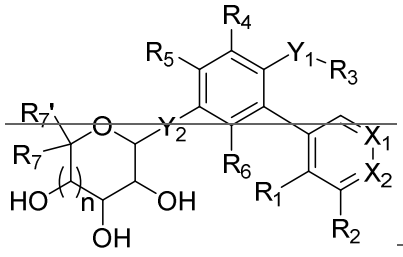
X_2 is CR_{15} or N, wherein:

R_{15} is hydrogen, halo, hydroxy, or alkyl$_{(C\leq 6)}$, alkenyl$_{(C\leq 6)}$, alkynyl$_{(C\leq 6)}$, alkoxy$_{(C\leq 6)}$, alkylamino$_{(C\leq 6)}$, –alkanediyl$_{(C\leq 6)}$–heterocycloalkyl$_{(C\leq 8)}$, or a substituted version of any of these groups;

R_{15} and R_{14} are taken together and are alkanediyl$_{(C\leq 6)}$, alkenediyl$_{(C\leq 6)}$, alkoxydiyl$_{(C\leq 6)}$, alkylaminodiyl$_{(C\leq 6)}$, or a substituted version of any of these groups; or

R_{15} and R_2 are taken together and are alkanediyl$_{(C\leq 6)}$, alkoxydiyl$_{(C\leq 6)}$, alkylaminodiyl$_{(C\leq 6)}$, or a substituted version of any of these groups;

or a compound of the formula:



(III)

wherein:

n is 1 or 2;

Y_1 is –alkanediyl$_{(C\leq 6)}$–, –C(O)–alkanediyl$_{(C\leq 6)}$–, or a substituted version of any of these groups;

Y_2 is CH_2, O, or S;

R_1 is hydrogen, amino, halo, hydroxy, carboxy, or alkyl$_{(C\leq 6)}$, alkenyl$_{(C\leq 6)}$, alkynyl$_{(C\leq 6)}$, cycloalkyl$_{(C\leq 8)}$, heterocycloalkyl$_{(C\leq 8)}$, amido$_{(C\leq 6)}$, alkoxy$_{(C\leq 6)}$, alkylsulfonyl$_{(C\leq 6)}$, or a substituted version of any of these groups;

R_2 is hydrogen, amino, halo, hydroxy, carboxy, or alkyl$_{(C\leq 6)}$, alkenyl$_{(C\leq 6)}$, alkynyl$_{(C\leq 6)}$, cycloalkyl$_{(C\leq 8)}$, heterocycloalkyl$_{(C\leq 8)}$, aryl$_{(C\leq 12)}$, aralkyl$_{(C\leq 12)}$,

amido$_{(C\leq6)}$, alkoxy$_{(C\leq6)}$, alkylthio$_{(C\leq6)}$, alkylsulfonyl$_{(C\leq6)}$, or a substituted version of any of these groups;

R_2 and R_{15} are taken together and are alkanediyl$_{(C\leq6)}$, alkoxydiyl$_{(C\leq6)}$, alkylaminodiyl$_{(C\leq6)}$, or a substituted version of any of these groups;

R_3 is $NR_{11}R_{11}'$ or $C(O)NR_{12}R_{12}'$, wherein:

R_{11} and R_{11}' are each independently hydrogen, alkyl$_{(C\leq6)}$, substituted alkyl$_{(C\leq6)}$, acyl$_{(C\leq6)}$, or substituted acyl$_{(C\leq6)}$;

R_{12} and R_{12}' are each independently hydrogen, alkyl$_{(C\leq6)}$, or substituted alkyl$_{(C\leq6)}$;

R_4, R_5, and R_6 are each independently hydrogen, halo, alkyl$_{(C\leq6)}$, substituted alkyl$_{(C\leq6)}$, alkoxy$_{(C\leq6)}$, substituted alkoxy$_{(C\leq6)}$, acyloxy$_{(C\leq6)}$, or substituted acyloxy$_{(C\leq6)}$;

R_7 and R_7' are each independently hydrogen, carboxy, or alkyl$_{(C\leq8)}$, alkenyl$_{(C\leq8)}$, alkynyl$_{(C\leq8)}$, cycloalkyl$_{(C\leq8)}$, heterocycloalkyl$_{(C\leq8)}$, aryl$_{(C\leq12)}$, heteroaryl$_{(C\leq12)}$, aralkyl$_{(C\leq12)}$, heteroaralkyl$_{(C\leq12)}$, alkanediyl$_{(C\leq6)}$-OR_{13}, or a substituted version of any of these groups wherein:

R_{13} is aralkyl$_{(C\leq12)}$ or substituted aralkyl$_{(C\leq12)}$; or

R_7 and R_7' are taken together and are –alkanediyl$_{(C\leq7)}$–, –alkenediyl$_{(C\leq7)}$–, or a substituted version of either of these groups;

X_1 is CR_{14} or N, wherein:

R_{14} is hydrogen, halo, hydroxy, or alkyl$_{(C\leq6)}$, alkenyl$_{(C\leq6)}$, alkynyl$_{(C\leq6)}$, alkoxy$_{(C\leq6)}$, alkylamino$_{(C\leq6)}$, –alkanediyl$_{(C\leq6)}$–heterocycloalkyl$_{(C\leq8)}$, or a substituted version of any of these groups; or

R_{14} and R_{15} are taken together and are alkanediyl$_{(C\leq6)}$, alkenediyl$_{(C\leq6)}$, alkoxydiyl$_{(C\leq6)}$, alkylaminodiyl$_{(C\leq6)}$, or a substituted version of any of these groups; and

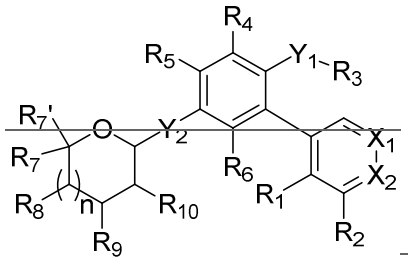
X_2 is CR_{15} or N, wherein:

R_{15} is hydrogen, halo, hydroxy, or alkyl$_{(C\leq6)}$, alkenyl$_{(C\leq6)}$, alkynyl$_{(C\leq6)}$, alkoxy$_{(C\leq6)}$, alkylamino$_{(C\leq6)}$, –alkanediyl$_{(C\leq6)}$–heterocycloalkyl$_{(C\leq8)}$, or a substituted version of any of these groups;

~~R_{15} and R_{14} are taken together and are alkanediyl$_{(C\leq 6)}$, alkenediyl$_{(C\leq 6)}$, alkoxydiyl$_{(C\leq 6)}$, alkylaminodiyl$_{(C\leq 6)}$, or a substituted version of any of these groups; or~~

~~R_{15} and R_2 are taken together and are alkanediyl$_{(C\leq 6)}$, alkoxydiyl$_{(C\leq 6)}$, alkylaminodiyl$_{(C\leq 6)}$, or a substituted version of any of these groups;~~

~~or a compound of the formula:~~



~~(II)~~

~~wherein:~~

~~n is 0, 1, or 2;~~

~~Y_1 is alkanediyl$_{(C\leq 6)}$, C(O) alkanediyl$_{(C\leq 6)}$, or a substituted version of any of these groups;~~

~~Y_2 is CH_2, O, or S;~~

~~R_1 is hydrogen, amino, halo, hydroxy, carboxy, or alkyl$_{(C\leq 6)}$, alkenyl$_{(C\leq 6)}$, alkynyl$_{(C\leq 6)}$, cycloalkyl$_{(C\leq 8)}$, heterocycloalkyl$_{(C\leq 8)}$, amido$_{(C\leq 6)}$, alkoxy$_{(C\leq 6)}$, alkylsulfonyl$_{(C\leq 6)}$, or a substituted version of any of these groups;~~

~~R_2 is hydrogen, amino, halo, hydroxy, carboxy, or alkyl$_{(C\leq 6)}$, alkenyl$_{(C\leq 6)}$, alkynyl$_{(C\leq 6)}$, cycloalkyl$_{(C\leq 8)}$, heterocycloalkyl$_{(C\leq 8)}$, aryl$_{(C\leq 12)}$, aralkyl$_{(C\leq 12)}$, amido$_{(C\leq 6)}$, alkoxy$_{(C\leq 6)}$, alkylthio$_{(C\leq 6)}$, alkylsulfonyl$_{(C\leq 6)}$, or a substituted version of any of these groups;~~

~~R_2 and R_{15} are taken together and are alkanediyl$_{(C\leq 6)}$, alkoxydiyl$_{(C\leq 6)}$, alkylaminodiyl$_{(C\leq 6)}$, or a substituted version of any of these groups;~~

~~R_3 is $-NR_{11}R_{11}'$ or $-C(O)NR_{12}R_{12}'$, wherein:~~

~~R_{11} and R_{11}' are each independently hydrogen, alkyl$_{(C\leq 6)}$, substituted alkyl$_{(C\leq 6)}$, acyl$_{(C\leq 6)}$, or substituted acyl$_{(C\leq 6)}$;~~

~~R_{12} and R_{12}' are each independently hydrogen, alkyl$_{(C\leq 6)}$, or substituted alkyl$_{(C\leq 6)}$;~~

R_4, R_5, and R_6 are each independently hydrogen, halo, alkyl$_{(C\leq6)}$, substituted alkyl$_{(C\leq6)}$, alkoxy$_{(C\leq6)}$, substituted alkoxy$_{(C\leq6)}$, acyloxy$_{(C\leq6)}$, or substituted acyloxy$_{(C\leq6)}$;

R_7 is carboxy or alkyl$_{(C\leq8)}$, alkenyl$_{(C\leq8)}$, alkynyl$_{(C\leq8)}$, cycloalkyl$_{(C\leq8)}$, heterocycloalkyl$_{(C\leq8)}$, aryl$_{(C\leq12)}$, heteroaryl$_{(C\leq12)}$, aralkyl$_{(C\leq12)}$, heteroaralkyl$_{(C\leq12)}$, −alkanediyl$_{(C\leq6)}$−OR$_{13}$, or a substituted version of any of these groups wherein:

R_{13} is aralkyl$_{(C\leq12)}$ or substituted aralkyl$_{(C\leq12)}$;

R_7' is hydrogen, carboxy, or alkyl$_{(C\leq8)}$, alkenyl$_{(C\leq8)}$, alkynyl$_{(C\leq8)}$, cycloalkyl$_{(C\leq8)}$, heterocycloalkyl$_{(C\leq8)}$, aryl$_{(C\leq12)}$, heteroaryl$_{(C\leq12)}$, aralkyl$_{(C\leq12)}$, heteroaralkyl$_{(C\leq12)}$, −alkanediyl$_{(C\leq6)}$−OR$_{13}$, or a substituted version of any of these groups wherein:

R_{13} is aralkyl$_{(C\leq12)}$ or substituted aralkyl$_{(C\leq12)}$; or

R_7 and R_7' are taken together and are −alkanediyl$_{(C\leq7)}$−, −alkenediyl$_{(C\leq7)}$−, or a substituted version of either of these groups;

R_8 is alkoxy$_{(C3-6)}$, acyloxy$_{(C\leq6)}$, aralkoxy$_{(C\leq12)}$, or a substituted version of any of these groups;

R_9 and R_{10} are each independently hydroxy, or alkyl$_{(C\leq6)}$, alkoxy$_{(C\leq6)}$, acyl$_{(C\leq6)}$, acyloxy$_{(C\leq6)}$, aralkyl$_{(C\leq12)}$, aralkoxy$_{(C\leq12)}$, or a substituted version of any of these groups;

X_1 is CR$_{14}$ or N, wherein:

R_{14} is hydrogen, halo, hydroxy, or alkyl$_{(C\leq6)}$, alkenyl$_{(C\leq6)}$, alkynyl$_{(C\leq6)}$, alkoxy$_{(C\leq6)}$, alkylamino$_{(C\leq6)}$, −alkanediyl$_{(C\leq6)}$−heterocycloalkyl$_{(C\leq8)}$, or a substituted version of any of these groups; or

R_{14} and R_{15} are taken together and are alkanediyl$_{(C\leq6)}$, alkenediyl$_{(C\leq6)}$, alkoxydiyl$_{(C\leq6)}$, alkylaminodiyl$_{(C\leq6)}$, or a substituted version of any of these groups; and

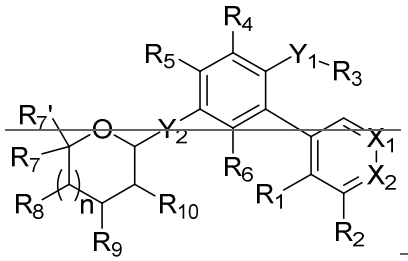
X_2 is CR$_{15}$ or N, wherein:

R_{15} is hydrogen, halo, hydroxy, or alkyl$_{(C\leq6)}$, alkenyl$_{(C\leq6)}$, alkynyl$_{(C\leq6)}$, alkoxy$_{(C\leq6)}$, alkylamino$_{(C\leq6)}$, −alkanediyl$_{(C\leq6)}$−heterocycloalkyl$_{(C\leq8)}$, or a substituted version of any of these groups;

~~R_{15} and R_{14} are taken together and are alkanediyl$_{(C\leq6)}$, alkenediyl$_{(C\leq6)}$, alkoxydiyl$_{(C\leq6)}$, alkylaminodiyl$_{(C\leq6)}$, or a substituted version of any of these groups; or~~

~~R_{15} and R_2 are taken together and are alkanediyl$_{(C\leq6)}$, alkoxydiyl$_{(C\leq6)}$, alkylaminodiyl$_{(C\leq6)}$, or a substituted version of any of these groups;~~

~~or a compound of the formula:~~



~~(II)~~

~~wherein:~~

~~n is 0, 1, or 2;~~

~~Y_1 is alkanediyl$_{(C\leq6)}$, C(O) alkanediyl$_{(C\leq6)}$, or a substituted version of any of these groups;~~

~~Y_2 is CH_2, O, or S;~~

~~R_1 is hydrogen, amino, halo, hydroxy, carboxy, or alkyl$_{(C\leq6)}$, alkenyl$_{(C\leq6)}$, alkynyl$_{(C\leq6)}$, cycloalkyl$_{(C\leq8)}$, heterocycloalkyl$_{(C\leq8)}$, amido$_{(C\leq6)}$, alkoxy$_{(C\leq6)}$, alkylsulfonyl$_{(C\leq6)}$, or a substituted version of any of these groups;~~

~~R_2 is hydrogen, amino, halo, hydroxy, carboxy, or alkyl$_{(C\leq6)}$, alkenyl$_{(C\leq6)}$, alkynyl$_{(C\leq6)}$, cycloalkyl$_{(C\leq8)}$, heterocycloalkyl$_{(C\leq8)}$, aryl$_{(C\leq12)}$, aralkyl$_{(C\leq12)}$, amido$_{(C\leq6)}$, alkoxy$_{(C\leq6)}$, alkylthio$_{(C\leq6)}$, alkylsulfonyl$_{(C\leq6)}$, or a substituted version of any of these groups;~~

~~R_2 and R_{15} are taken together and are alkanediyl$_{(C\leq6)}$, alkoxydiyl$_{(C\leq6)}$, alkylaminodiyl$_{(C\leq6)}$, or a substituted version of any of these groups;~~

~~R_3 is $-NR_{11}R_{11}'$ or $-C(O)NR_{12}R_{12}'$, wherein:~~

~~R_{11} and R_{11}' are each independently hydrogen, alkyl$_{(C\leq6)}$, substituted alkyl$_{(C\leq6)}$;~~

~~R_{12} and R_{12}' are each independently hydrogen, alkyl$_{(C\leq6)}$, or substituted alkyl$_{(C\leq6)}$;~~

~~R_4, R_5, and R_6 are each independently hydrogen, halo, alkyl$_{(C\leq6)}$, substituted alkyl$_{(C\leq6)}$, alkoxy$_{(C\leq6)}$, substituted alkoxy$_{(C\leq6)}$, acyloxy$_{(C\leq6)}$, or substituted acyloxy$_{(C\leq6)}$;~~

R_7 and R_7' are each independently hydrogen, carboxy or alkyl$_{(C\leq 8)}$, alkenyl$_{(C\leq 8)}$, alkynyl$_{(C\leq 8)}$, cycloalkyl$_{(C\leq 8)}$, heterocycloalkyl$_{(C\leq 8)}$, aryl$_{(C\leq 12)}$, heteroaryl$_{(C\leq 12)}$, aralkyl$_{(C\leq 12)}$, heteroaralkyl$_{(C\leq 12)}$, alkanediyl$_{(C\leq 6)}$-OR_{13}, or a substituted version of any of these groups wherein:

R_{13} is aralkyl$_{(C\leq 12)}$ or substituted aralkyl$_{(C\leq 12)}$;

R_7 and R_7' are taken together and are alkanediyl$_{(C\leq 7)}$, alkenediyl$_{(C\leq 7)}$, or a substituted version of either of these groups;

R_8, R_9, and R_{10} are each independently hydrogen, hydroxy, or alkyl$_{(C\leq 6)}$, alkoxy$_{(C\leq 6)}$, acyl$_{(C\leq 6)}$, acyloxy$_{(C\leq 6)}$, aralkyl$_{(C\leq 12)}$, aralkoxy$_{(C\leq 12)}$, or a substituted version of any of these groups;

X_1 is CR_{14} or N, wherein:

R_{14} is hydrogen, halo, hydroxy, or alkyl$_{(C\leq 6)}$, alkenyl$_{(C\leq 6)}$, alkynyl$_{(C\leq 6)}$, alkoxy$_{(C\leq 6)}$, alkylamino$_{(C\leq 6)}$, –alkanediyl$_{(C\leq 6)}$–heterocycloalkyl$_{(C\leq 8)}$, or a substituted version of any of these groups; or

R_{14} and R_{15} are taken together and are alkanediyl$_{(C\leq 6)}$, alkenediyl$_{(C\leq 6)}$, alkoxydiyl$_{(C\leq 6)}$, alkylaminodiyl$_{(C\leq 6)}$, or a substituted version of any of these groups; and

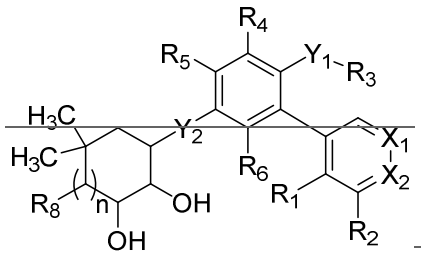
X_2 is CR_{15} or N, wherein:

R_{15} is hydrogen, halo, hydroxy, or alkyl$_{(C\leq 6)}$, alkenyl$_{(C\leq 6)}$, alkynyl$_{(C\leq 6)}$, alkoxy$_{(C\leq 6)}$, alkylamino$_{(C\leq 6)}$, –alkanediyl$_{(C\leq 6)}$–heterocycloalkyl$_{(C\leq 8)}$, or a substituted version of any of these groups;

R_{15} and R_{14} are taken together and are alkanediyl$_{(C\leq 6)}$, alkenediyl$_{(C\leq 6)}$, alkoxydiyl$_{(C\leq 6)}$, alkylaminodiyl$_{(C\leq 6)}$, or a substituted version of any of these groups; or

R_{15} and R_2 are taken together and are alkanediyl$_{(C\leq 6)}$, alkoxydiyl$_{(C\leq 6)}$, alkylaminodiyl$_{(C\leq 6)}$, or a substituted version of any of these groups;

or a compound of the formula:



(IV)

wherein:

n is 0, 1, or 2;

Y_1 is –alkanediyl$_{(C\leq 6)}$–, –C(O)–alkanediyl$_{(C\leq 6)}$–, or a substituted version of any of these groups;

Y_2 is CH_2, O, or S;

R_1 is hydrogen, amino, halo, hydroxy, carboxy, or alkyl$_{(C\leq 6)}$, alkenyl$_{(C\leq 6)}$, alkynyl$_{(C\leq 6)}$, cycloalkyl$_{(C\leq 8)}$, heterocycloalkyl$_{(C\leq 8)}$, amido$_{(C\leq 6)}$, alkoxy$_{(C\leq 6)}$, alkylsulfonyl$_{(C\leq 6)}$, or a substituted version of any of these groups;

R_2 is hydrogen, amino, halo, hydroxy, carboxy, or alkyl$_{(C\leq 6)}$, alkenyl$_{(C\leq 6)}$, alkynyl$_{(C\leq 6)}$, cycloalkyl$_{(C\leq 8)}$, heterocycloalkyl$_{(C\leq 8)}$, aryl$_{(C\leq 12)}$, aralkyl$_{(C\leq 12)}$, amido$_{(C\leq 6)}$, alkoxy$_{(C\leq 6)}$, alkylthio$_{(C\leq 6)}$, alkylsulfonyl$_{(C\leq 6)}$, or a substituted version of any of these groups;

R_2 and R_{15} are taken together and are alkanediyl$_{(C\leq 6)}$, alkoxydiyl$_{(C\leq 6)}$, alkylaminodiyl$_{(C\leq 6)}$, or a substituted version of any of these groups;

R_3 is $NR_{11}R_{11}'$ or $C(O)NR_{12}R_{12}'$, wherein:

R_{11} and R_{11}' are each independently hydrogen, alkyl$_{(C\leq 6)}$, substituted alkyl$_{(C\leq 6)}$, acyl$_{(C\leq 6)}$, or substituted acyl$_{(C\leq 6)}$;

R_{12} and R_{12}' are each independently hydrogen, alkyl$_{(C\leq 6)}$, or substituted alkyl$_{(C\leq 6)}$;

R_4, R_5, and R_6 are each independently hydrogen, halo, alkyl$_{(C\leq 6)}$, substituted alkyl$_{(C\leq 6)}$, alkoxy$_{(C\leq 6)}$, substituted alkoxy$_{(C\leq 6)}$, acyloxy$_{(C\leq 6)}$, or substituted acyloxy$_{(C\leq 6)}$;

R_8 is hydroxy, or alkyl$_{(C\leq 6)}$, alkoxy$_{(C\leq 6)}$, acyl$_{(C\leq 6)}$, acyloxy$_{(C\leq 6)}$, aralkyl$_{(C\leq 12)}$, aralkoxy$_{(C\leq 12)}$, or a substituted version of any of these groups;

X_1 is CR_{14} or N, wherein:

~~R_{14} is hydrogen, halo, hydroxy, or alkyl$_{(C\leq6)}$, alkenyl$_{(C\leq6)}$, alkynyl$_{(C\leq6)}$, alkoxy$_{(C\leq6)}$, alkylamino$_{(C\leq6)}$, –alkanediyl$_{(C\leq6)}$–heterocycloalkyl$_{(C\leq8)}$, or a substituted version of any of these groups; or~~

~~R_{14} and R_{15} are taken together and are alkanediyl$_{(C\leq6)}$, alkenediyl$_{(C\leq6)}$, alkoxydiyl$_{(C\leq6)}$, alkylaminodiyl$_{(C\leq6)}$, or a substituted version of any of these groups; and~~

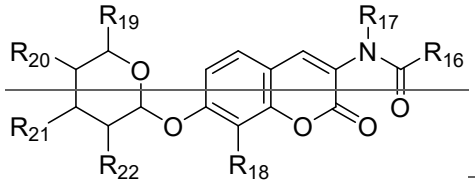
~~X_2 is CR_{15} or N, wherein:~~

~~R_{15} is hydrogen, halo, hydroxy, or alkyl$_{(C\leq6)}$, alkenyl$_{(C\leq6)}$, alkynyl$_{(C\leq6)}$, alkoxy$_{(C\leq6)}$, alkylamino$_{(C\leq6)}$, –alkanediyl$_{(C\leq6)}$–heterocycloalkyl$_{(C\leq8)}$, or a substituted version of any of these groups;~~

~~R_{15} and R_{14} are taken together and are alkanediyl$_{(C\leq6)}$, alkenediyl$_{(C\leq6)}$, alkoxydiyl$_{(C\leq6)}$, alkylaminodiyl$_{(C\leq6)}$, or a substituted version of any of these groups; or~~

~~R_{15} and R_2 are taken together and are alkanediyl$_{(C\leq6)}$, alkoxydiyl$_{(C\leq6)}$, alkylaminodiyl$_{(C\leq6)}$, or a substituted version of any of these groups;~~

~~or a compound of the formula:~~



~~(V)~~

~~wherein:~~

~~R_{16} is alkyl$_{(C\leq12)}$, cycloalkyl$_{(C\leq12)}$, aryl$_{(C\leq18)}$, heteroaryl$_{(C\leq18)}$, or a substituted version thereof;~~

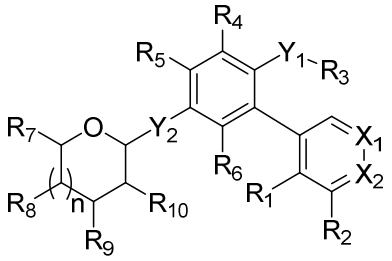
~~R_{17} and R_{18} are each independently hydrogen, alkyl$_{(C\leq8)}$, or substituted alkyl$_{(C\leq8)}$;~~

~~R_{19} is alkyl$_{(C\leq8)}$, alkenyl$_{(C\leq8)}$, alkynyl$_{(C\leq8)}$, cycloalkyl$_{(C\leq8)}$, heterocycloalkyl$_{(C\leq8)}$, aryl$_{(C\leq12)}$, heteroaryl$_{(C\leq12)}$, aralkyl$_{(C\leq12)}$, heteroaralkyl$_{(C\leq12)}$, or a substituted version of any of these groups~~

~~R_{20}, R_{21}, and R_{22} are each independently hydroxy, alkoxy$_{(C\leq12)}$, substituted alkoxy$_{(C\leq12)}$, or a protected hydroxy group;~~

~~or a pharmaceutically acceptable salt of any of the above formulas.~~

~~41~~. ~~The compound according to any one of claims 1-3 further defined as:~~A compound of the formula



(I),

wherein:

n is 0, 1, or 2;

Y_1 is −alkanediyl$_{(C\leq 6)}$−, −C(O)−alkanediyl$_{(C\leq 6)}$−, or a substituted version of any of these groups;

Y_2 is CH_2, O, or S;

R_1 is hydrogen, amino, halo, hydroxy, carboxy, or alkyl$_{(C\leq 6)}$, alkenyl$_{(C\leq 6)}$, alkynyl$_{(C\leq 6)}$, cycloalkyl$_{(C\leq 8)}$, heterocycloalkyl$_{(C\leq 8)}$, amido$_{(C\leq 6)}$, alkoxy$_{(C\leq 6)}$, alkylsulfonyl$_{(C\leq 6)}$, or a substituted version of any of these groups;

R_2 is hydrogen, amino, halo, hydroxy, carboxy, or alkyl$_{(C\leq 6)}$, alkenyl$_{(C\leq 6)}$, alkynyl$_{(C\leq 6)}$, cycloalkyl$_{(C\leq 8)}$, heterocycloalkyl$_{(C\leq 8)}$, aryl$_{(C\leq 12)}$, aralkyl$_{(C\leq 12)}$, amido$_{(C\leq 6)}$, alkoxy$_{(C\leq 6)}$, alkylthio$_{(C\leq 6)}$, alkylsulfonyl$_{(C\leq 6)}$, or a substituted version of any of these groups;

R_2 and R_{15} are taken together and are alkanediyl$_{(C\leq 6)}$, alkoxydiyl$_{(C\leq 6)}$, alkylaminodiyl$_{(C\leq 6)}$, or a substituted version of any of these groups;

R_3 is $–NR_{11}R_{11}'$ or $–C(O)NR_{12}R_{12}'$, wherein:

R_{11} and R_{11}' are each independently hydrogen, alkyl$_{(C\leq 6)}$, substituted alkyl$_{(C\leq 6)}$, acyl$_{(C\leq 6)}$, or substituted acyl$_{(C\leq 6)}$;

R_{12} and R_{12}' are each independently hydrogen, alkyl$_{(C\leq 6)}$, or substituted alkyl$_{(C\leq 6)}$;

R_4, R_5, and R_6 are each independently hydrogen, halo, alkyl$_{(C\leq 6)}$, substituted alkyl$_{(C\leq 6)}$, alkoxy$_{(C\leq 6)}$, substituted alkoxy$_{(C\leq 6)}$, acyloxy$_{(C\leq 6)}$, or substituted acyloxy$_{(C\leq 6)}$;

R_7 is carboxy or alkyl$_{(C\leq 6)}$, alkenyl$_{(C\leq 8)}$, alkynyl$_{(C\leq 8)}$, cycloalkyl$_{(C\leq 8)}$, heterocycloalkyl$_{(C\leq 8)}$, aryl$_{(C\leq 12)}$, heteroaryl$_{(C\leq 12)}$, aralkyl$_{(C\leq 12)}$, heteroaralkyl$_{(C\leq 12)}$, −alkanediyl$_{(C\leq 6)}$−OR_{13}, or a substituted version of any of these groups wherein:

R_{13} is $alkyl_{(C\leq12)}$, substituted $alkyl_{(C\leq12)}$, $aralkyl_{(C\leq12)}$, or substituted $aralkyl_{(C\leq12)}$;

R_8, R_9, and R_{10} are each independently hydrogen, halo, hydroxy, or $alkyl_{(C\leq6)}$, $alkoxy_{(C\leq6)}$, $acyl_{(C\leq6)}$, $acyloxy_{(C\leq6)}$, $aralkyl_{(C\leq12)}$, $aralkoxy_{(C\leq12)}$, or a substituted version of any of these groups;

X_1 is CR_{14} or N, wherein:

R_{14} is hydrogen, halo, hydroxy, or $alkyl_{(C\leq6)}$, $alkenyl_{(C\leq6)}$, $alkynyl_{(C\leq6)}$, $alkoxy_{(C\leq6)}$, $alkylamino_{(C\leq6)}$, $-alkanediyl_{(C\leq6)}-heterocycloalkyl_{(C\leq8)}$, or a substituted version of any of these groups; or

R_{14} and R_{15} are taken together and are $alkanediyl_{(C\leq6)}$, $alkenediyl_{(C\leq6)}$, $alkoxydiyl_{(C\leq6)}$, $alkylaminodiyl_{(C\leq6)}$, or a substituted version of any of these groups; and

X_2 is CR_{15} or N, wherein:

R_{15} is hydrogen, halo, hydroxy, or $alkyl_{(C\leq6)}$, $alkenyl_{(C\leq6)}$, $alkynyl_{(C\leq6)}$, $alkoxy_{(C\leq6)}$, $alkylamino_{(C\leq6)}$, $-alkanediyl_{(C\leq6)}-heterocycloalkyl_{(C\leq8)}$, or a substituted version of any of these groups;

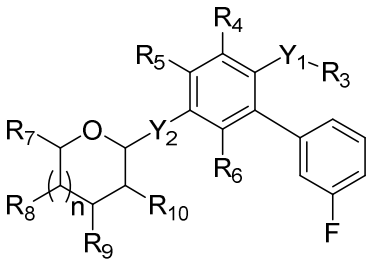
R_{15} and R_{14} are taken together and are $alkanediyl_{(C\leq6)}$, $alkenediyl_{(C\leq6)}$, $alkoxydiyl_{(C\leq6)}$, $alkylaminodiyl_{(C\leq6)}$, or a substituted version of any of these groups; or

R_{15} and R_2 are taken together and are $alkanediyl_{(C\leq6)}$, $alkoxydiyl_{(C\leq6)}$, $alkylaminodiyl_{(C\leq6)}$, or a substituted version of any of these groups;

wherein when any of the terms is used with the "substituted" modifier, one or more hydrogen atom has been independently replaced by $-OH$, $-F$, $-Cl$, $-Br$, $-I$, $-NH_2$, $-NO_2$, $-CO_2H$, $-CO_2CH_3$, $-CN$, $-SH$, $-OCH_3$, $-OCH_2CH_3$, $-C(O)CH_3$, $-NHCH_3$, $-NHCH_2CH_3$, $-N(CH_3)_2$, $-C(O)NH_2$, $-C(O)NHCH_3$, $-C(O)N(CH_3)_2$, $-OC(O)CH_3$, $-NHC(O)CH_3$, $-S(O)_2OH$, or $-S(O)_2NH_2$;

or a pharmaceutically acceptable salt of the formula.

~~5~~2. The compound ~~according to any one of claims 1-3~~of claim 1 further defined as:



(VI),

wherein:

n is 0, 1, or 2;

Y_1 is −alkanediyl$_{(C\leq 6)}$−, −C(O)−alkanediyl$_{(C\leq 6)}$−, or a substituted version of any of these groups;

Y_2 is CH_2, O, or S;

R_3 is $–NR_{11}R_{11}'$ or $–C(O)NR_{12}R_{12}'$, wherein:

R_{11} and R_{11}' are each independently hydrogen, alkyl$_{(C\leq 6)}$, substituted alkyl$_{(C\leq 6)}$, acyl$_{(C\leq 6)}$, or substituted acyl$_{(C\leq 6)}$;

R_{12} and R_{12}' are each independently hydrogen, alkyl$_{(C\leq 6)}$, or substituted alkyl$_{(C\leq 6)}$;

R_4, R_5, and R_6 are each independently hydrogen, halo, alkyl$_{(C\leq 6)}$, substituted alkyl$_{(C\leq 6)}$, alkoxy$_{(C\leq 6)}$, substituted alkoxy$_{(C\leq 6)}$, acyloxy$_{(C\leq 6)}$, or substituted acyloxy$_{(C\leq 6)}$;

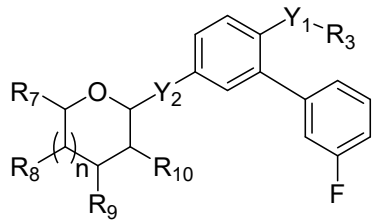
R_7 is carboxy or alkyl$_{(C\leq 6)}$, alkenyl$_{(C\leq 8)}$, alkynyl$_{(C\leq 8)}$, cycloalkyl$_{(C\leq 8)}$, heterocycloalkyl$_{(C\leq 8)}$, aryl$_{(C\leq 12)}$, heteroaryl$_{(C\leq 12)}$, aralkyl$_{(C\leq 12)}$, heteroaralkyl$_{(C\leq 12)}$, −alkanediyl$_{(C\leq 6)}$−OR_{13}, or a substituted version of any of these groups wherein:

R_{13} is alkyl$_{(C\leq 12)}$, substituted alkyl$_{(C\leq 12)}$, aralkyl$_{(C\leq 12)}$, or substituted aralkyl$_{(C\leq 12)}$; and

R_8, R_9, and R_{10} are each independently hydrogen, halo, hydroxy, or alkyl$_{(C\leq 6)}$, alkoxy$_{(C\leq 6)}$, acyl$_{(C\leq 6)}$, acyloxy$_{(C\leq 6)}$, aralkyl$_{(C\leq 12)}$, aralkoxy$_{(C\leq 12)}$, or a substituted version of any of these groups;

or a pharmaceutically acceptable salt of the formula.

~~6~~3. The compound ~~according to any one of claims 1-5~~of either claim 1 or claim 2 further defined as:



(VII),

wherein:

n is 0, 1, or 2;

Y_1 is −alkanediyl$_{(C\leq 6)}$−, −C(O)−alkanediyl$_{(C\leq 6)}$−, or a substituted version of any of these groups;

Y_2 is CH_2, O, or S;

R_3 is –$NR_{11}R_{11}'$ or –$C(O)NR_{12}R_{12}'$, wherein:

R_{11} and R_{11}' are each independently hydrogen, alkyl$_{(C\leq 6)}$, substituted alkyl$_{(C\leq 6)}$, acyl$_{(C\leq 6)}$, or substituted acyl$_{(C\leq 6)}$;

R_{12} and R_{12}' are each independently hydrogen, alkyl$_{(C\leq 6)}$, or substituted alkyl$_{(C\leq 6)}$;

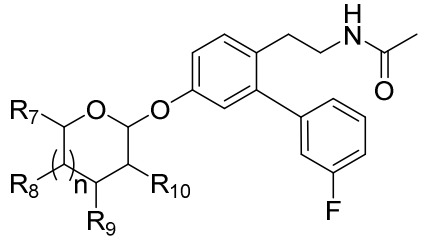
R_7 is carboxy or alkyl$_{(C\leq 6)}$, alkenyl$_{(C\leq 8)}$, alkynyl$_{(C\leq 8)}$, cycloalkyl$_{(C\leq 8)}$, heterocycloalkyl$_{(C\leq 8)}$, aryl$_{(C\leq 12)}$, heteroaryl$_{(C\leq 12)}$, aralkyl$_{(C\leq 12)}$, heteroaralkyl$_{(C\leq 12)}$, −alkanediyl$_{(C\leq 6)}$−OR_{13}, or a substituted version of any of these groups wherein:

R_{13} is alkyl$_{(C\leq 12)}$, substituted alkyl$_{(C\leq 12)}$, aralkyl$_{(C\leq 12)}$, or substituted aralkyl$_{(C\leq 12)}$; and

R_8, R_9, and R_{10} are each independently hydrogen, halo, hydroxy, or alkyl$_{(C\leq 6)}$, alkoxy$_{(C\leq 6)}$, acyl$_{(C\leq 6)}$, acyloxy$_{(C\leq 6)}$, aralkyl$_{(C\leq 12)}$, aralkoxy$_{(C\leq 12)}$, or a substituted version of any of these groups;

or a pharmaceutically acceptable salt of the formula.

~~7~~4. The compound according to any one of claims 1-~~6~~ 3 further defined as:



(VIII),

wherein:

n is 0, 1, or 2;

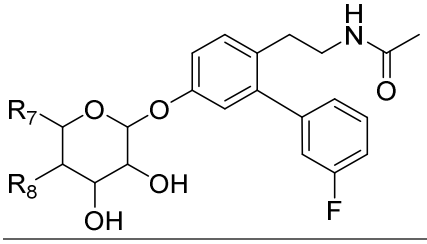
R_7 is carboxy or $alkyl_{(C\leq6)}$, $alkenyl_{(C\leq8)}$, $alkynyl_{(C\leq8)}$, $cycloalkyl_{(C\leq8)}$, $heterocycloalkyl_{(C\leq8)}$, $aryl_{(C\leq12)}$, $heteroaryl_{(C\leq12)}$, $aralkyl_{(C\leq12)}$, $heteroaralkyl_{(C\leq12)}$, $-alkanediyl_{(C\leq6)}-OR_{13}$, or a substituted version of any of these groups wherein:

R_{13} is $alkyl_{(C\leq12)}$, substituted $alkyl_{(C\leq12)}$, $aralkyl_{(C\leq12)}$, or substituted $aralkyl_{(C\leq12)}$; and

R_8, R_9, and R_{10} are each independently hydrogen, halo, hydroxy, or $alkyl_{(C\leq6)}$, $alkoxy_{(C\leq6)}$, $acyl_{(C\leq6)}$, $acyloxy_{(C\leq6)}$, $aralkyl_{(C\leq12)}$, $aralkoxy_{(C\leq12)}$, or a substituted version of any of these groups;

or a pharmaceutically acceptable salt of the formula.

5. The compound according to any one of claims 1-4, wherein the compound is further defined as:



(IX)

wherein:

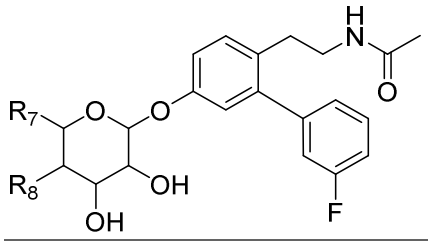
R_7 is carboxy or $alkyl_{(C\leq6)}$, $alkenyl_{(C\leq8)}$, $alkynyl_{(C\leq8)}$, $cycloalkyl_{(C\leq8)}$, $heterocycloalkyl_{(C\leq8)}$, $aryl_{(C\leq12)}$, $heteroaryl_{(C\leq12)}$, $aralkyl_{(C\leq12)}$, $heteroaralkyl_{(C\leq12)}$, $-alkanediyl_{(C\leq6)}-OR_{13}$, or a substituted version of any of these groups wherein:

R_{13} is $alkyl_{(C\leq12)}$, substituted $alkyl_{(C\leq12)}$, $aralkyl_{(C\leq12)}$, or substituted $aralkyl_{(C\leq12)}$; and

R_8 is hydrogen, halo, hydroxy, or $alkyl_{(C\leq6)}$, $alkoxy_{(C\leq6)}$, $acyl_{(C\leq6)}$, $acyloxy_{(C\leq6)}$, $aralkyl_{(C\leq12)}$, $aralkoxy_{(C\leq12)}$, or a substituted version of any of these groups;

or a pharmaceutically acceptable salt of the formula.

6. The compound of claim 5 further defined as:



(IX)

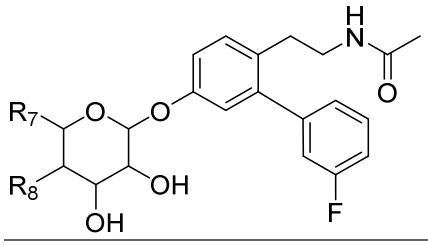
wherein:

R_7 is $alkyl_{(C\leq6)}$, $alkenyl_{(C\leq8)}$, $alkynyl_{(C\leq8)}$, or a substituted version of any of these groups; and

R_8 is hydrogen, hydroxy, or $alkyl_{(C\leq6)}$, $alkoxy_{(C\leq6)}$, or a substituted version of either of these groups;

or a pharmaceutically acceptable salt of the formula.

7. The compound of claim 6 further defined as:



(IX)

wherein:

R_7 is $alkyl_{(C\leq6)}$ or substituted $alkyl_{(C\leq6)}$; and

R_8 is hydroxy, $alkoxy_{(C\leq6)}$, or substituted $alkoxy_{(C\leq6)}$;

or a pharmaceutically acceptable salt of the formula.

8. The compound ~~according to any one of claims 1-4~~of claim 1, wherein R_1 is hydrogen~~,~~ and R_2 is halo such as fluoro.

9. The compound ~~according to any one of claims 1-4 and 8~~of either claim 1 or claim 8, wherein X_1 is CR_{14}, wherein R_{14} is hydrogen or X_2 is CR_{15}, wherein R_{15} is hydrogen.

10. The compound according to any one of claims ~~1-6, 8, and 9~~1, 2, 8, and 9, wherein Y_1 is −alkanediyl$_{(C\leq6)}$− or substituted −alkanediyl$_{(C\leq6)}$− and R_3 is –$NR_{11}R_{11}'$, wherein R_{11} is acyl$_{(C\leq6)}$ or substituted acyl$_{(C\leq6)}$, and R_{11}' is hydrogen.

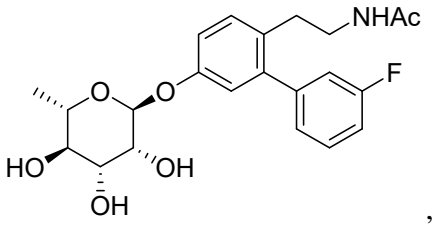
11. The compound according to any one of claims 1~~-5,~~ 2, and 8-10, wherein R_4 is hydrogen, R_5 is hydrogen, or R_6 is hydrogen.

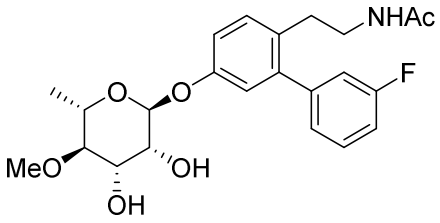
12. The compound according to any one of claims 1-~~6,~~3 and 8-11, wherein Y_2 is O and n is 1 or 2.

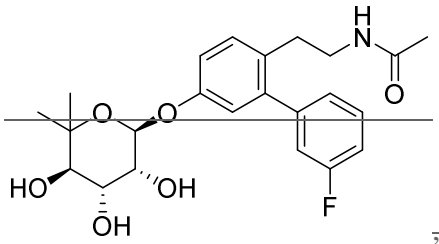
13. The compound according to any one of claims 1-4 and 8-12, wherein R_9 is hydroxy, R_{10} is hydroxy, or R_8 is hydroxy, alkoxy$_{(C\leq6)}$, or substituted alkoxy$_{(C\leq6)}$.

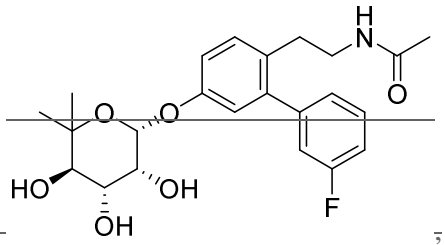
14. The compound according to any one of claims 1-13, wherein R_7 is alkyl$_{(C\leq6)}$ or substituted alkyl$_{(C\leq6)}$.

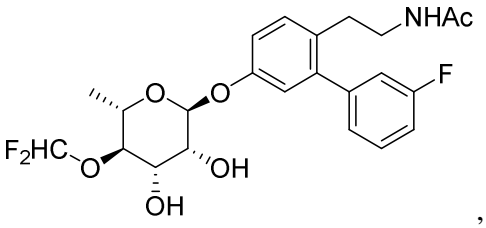
15. The compound ~~according to any one of claims 1-14~~of claim 1, wherein the compound is further defined as:

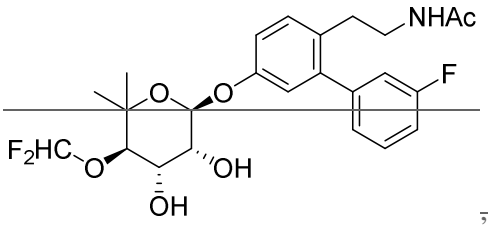


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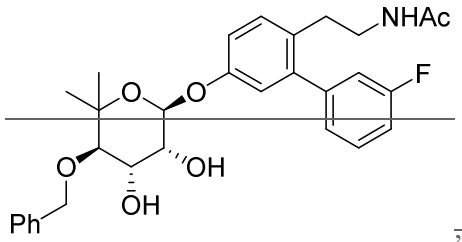
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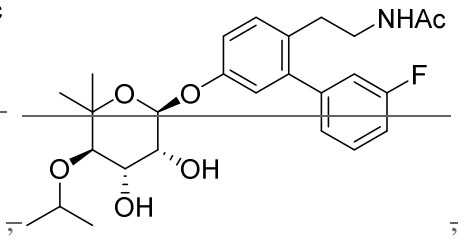
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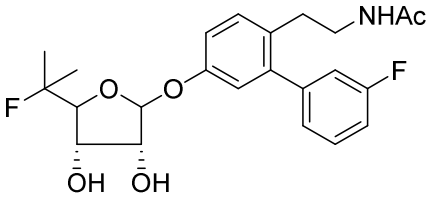
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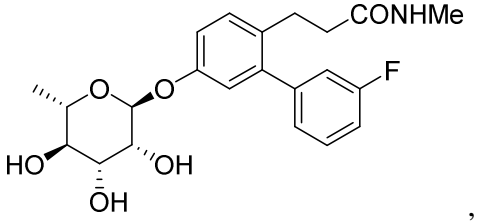
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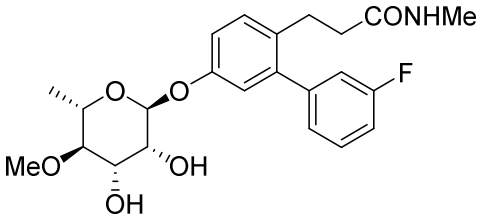
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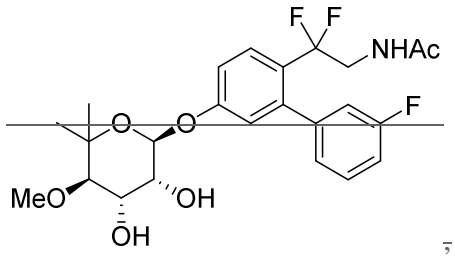

NHAc
F
O
O
O
OH
OH
Ph

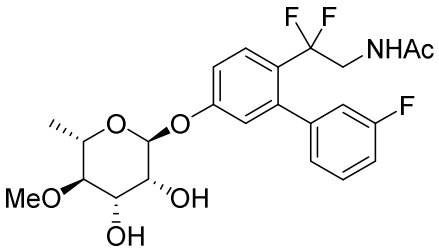

NHAc
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O
O
OH
OH

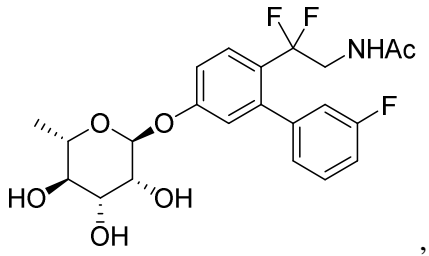

NHAc
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O
O
OH
OH

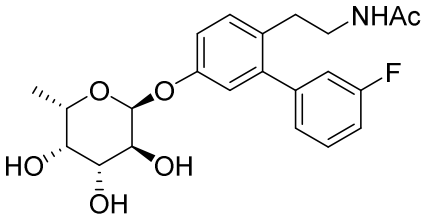

CONHMe
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O
HO
OH
OH

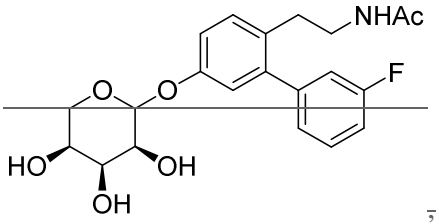

CONHMe
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O
O
MeO
OH
OH

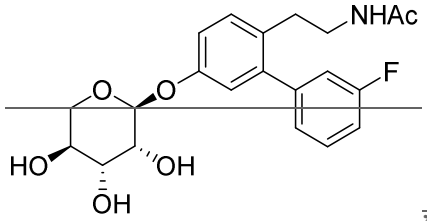

F
F
NHAc
F
O
O
MeO
OH
OH

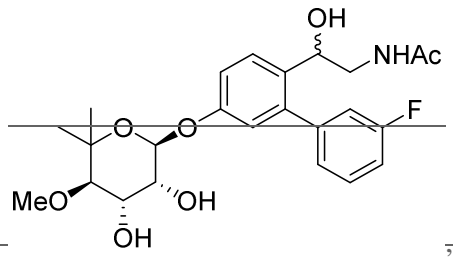

F
F
NHAc
F
O
O
MeO
OH
OH

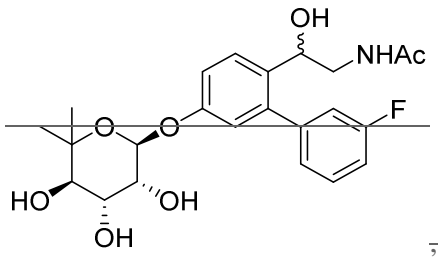
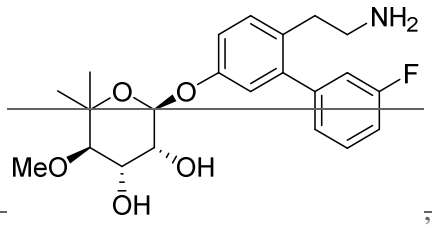
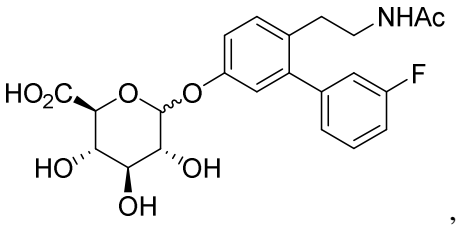
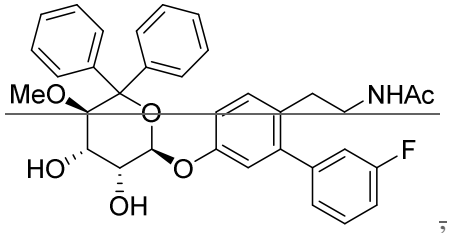
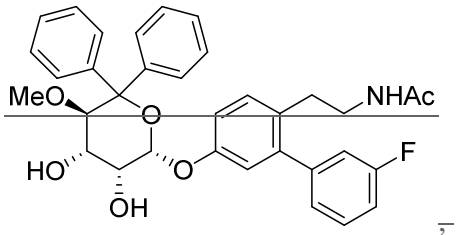
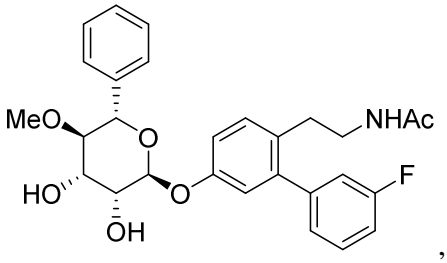
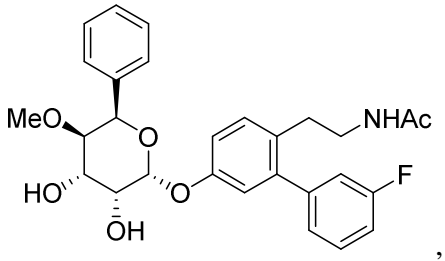

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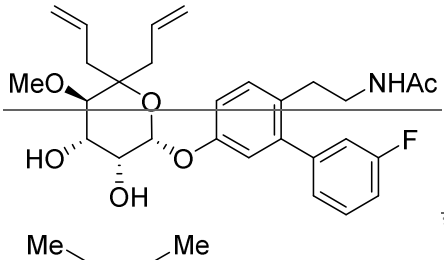
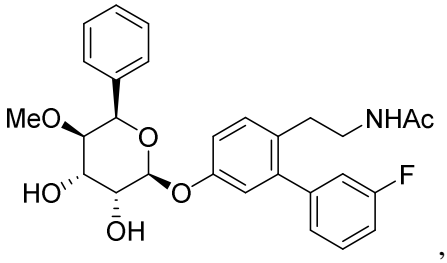

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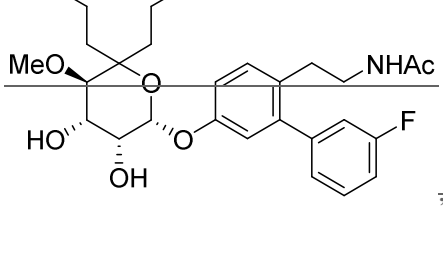
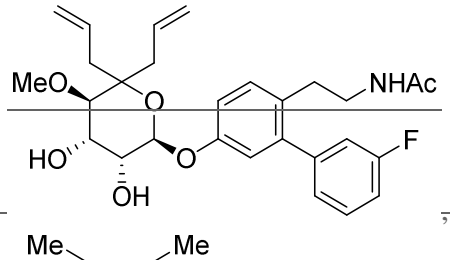

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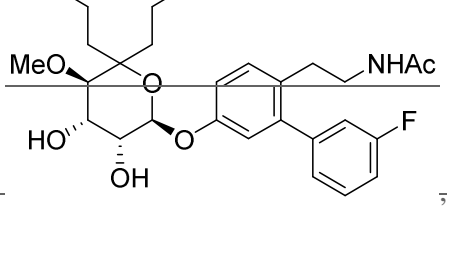

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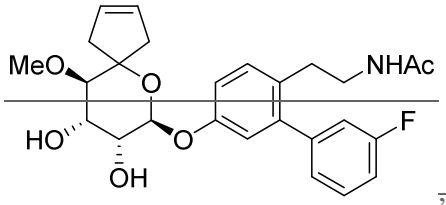
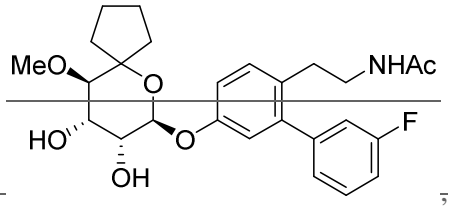
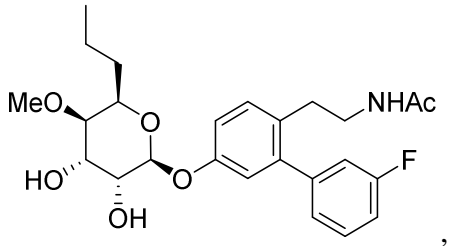
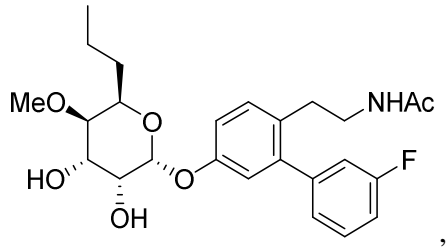
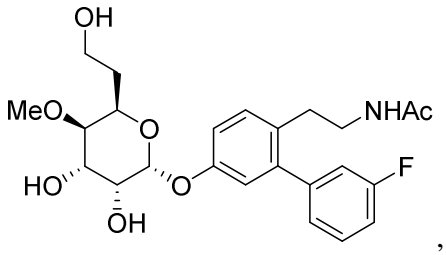
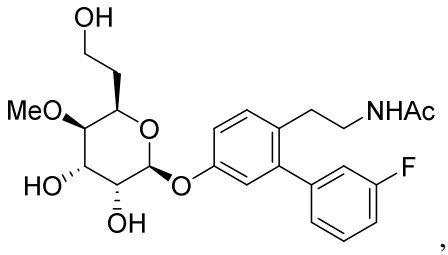
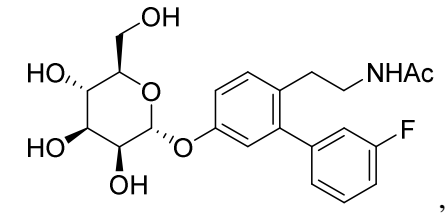
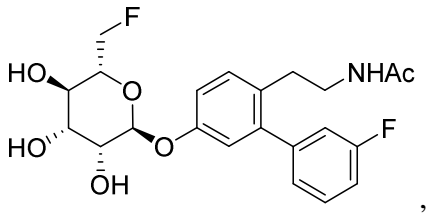
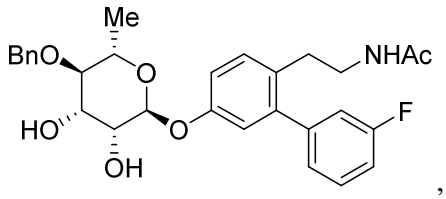
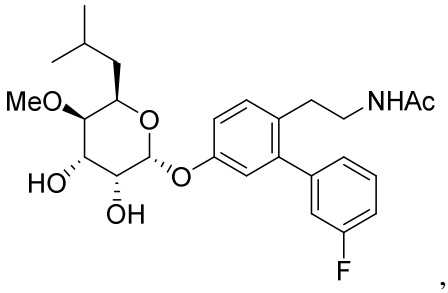
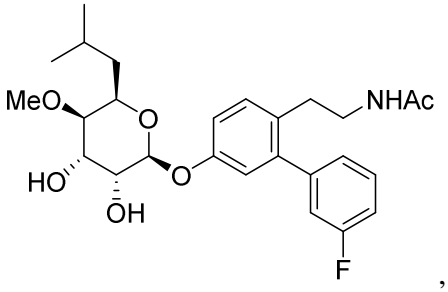
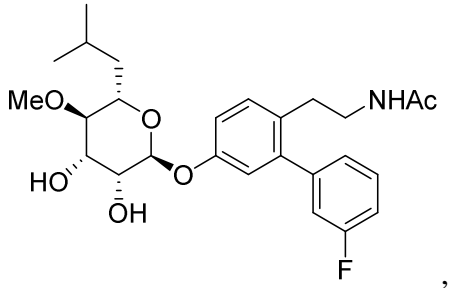

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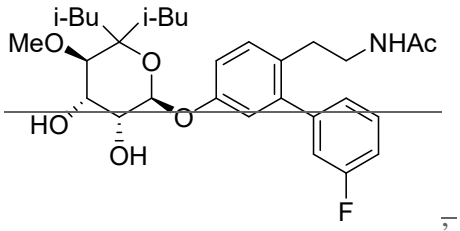
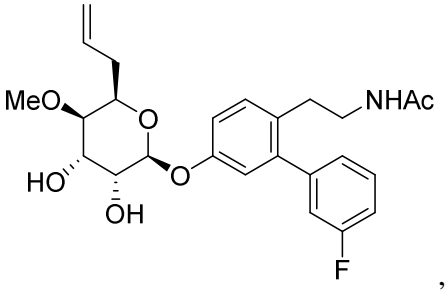
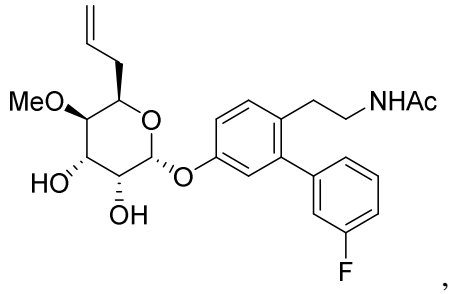
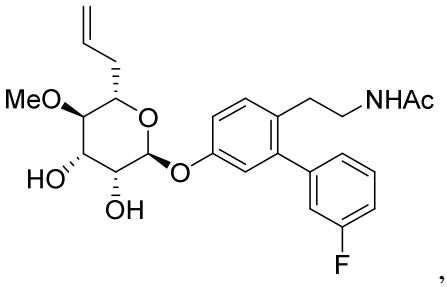
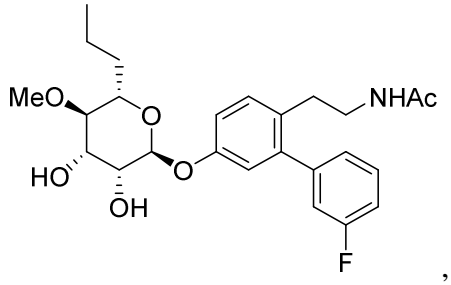
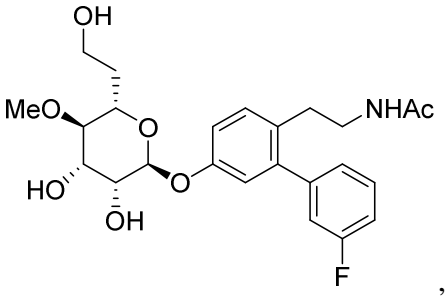
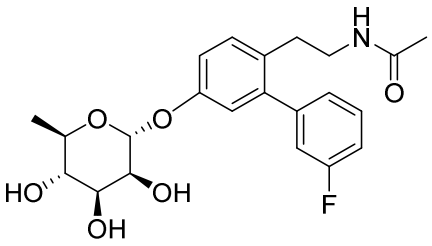
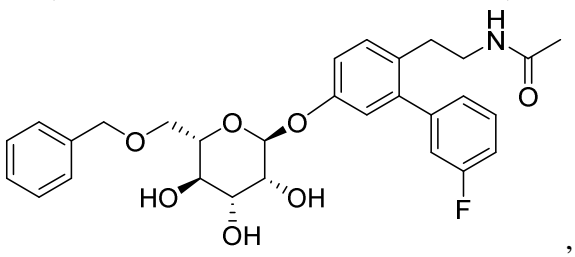
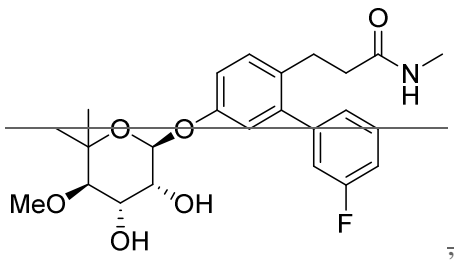
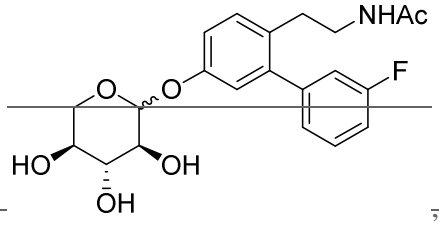
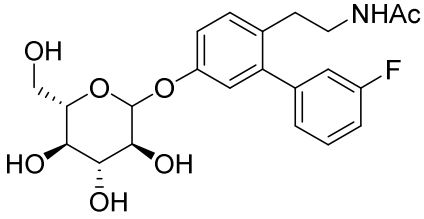
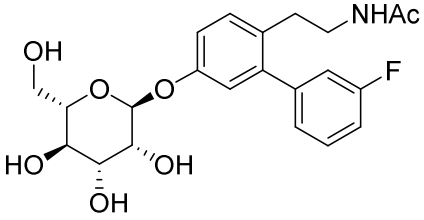








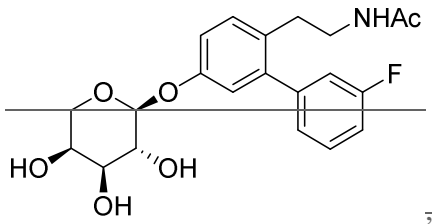
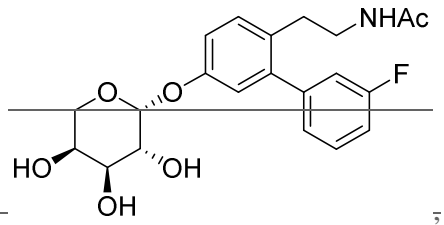



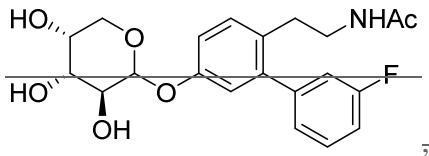



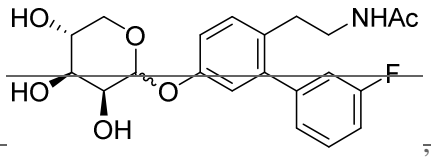



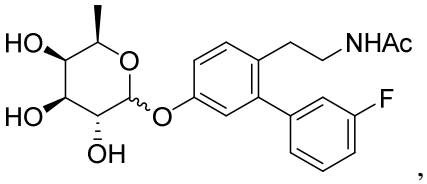

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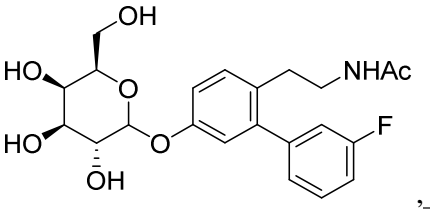

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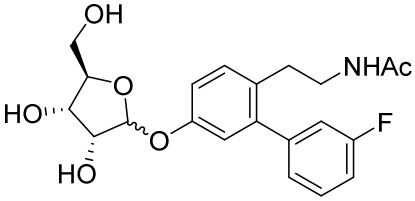



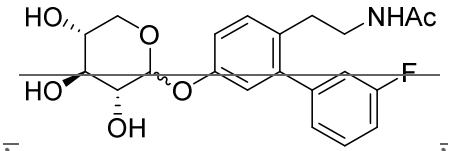


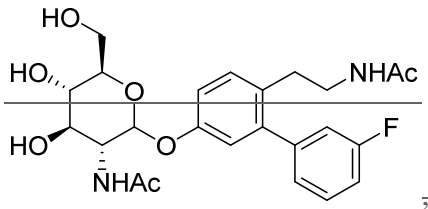
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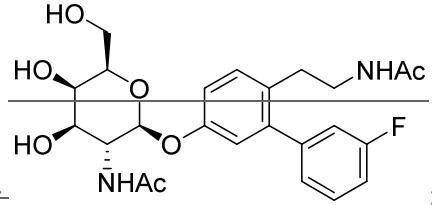
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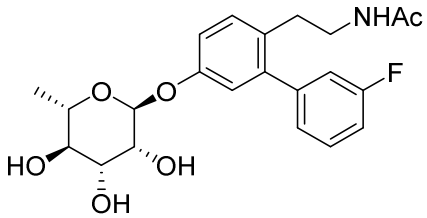
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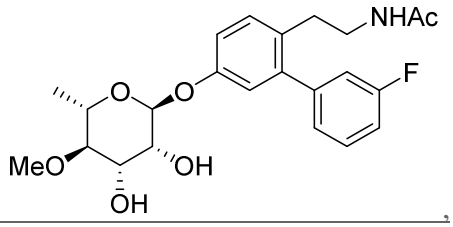
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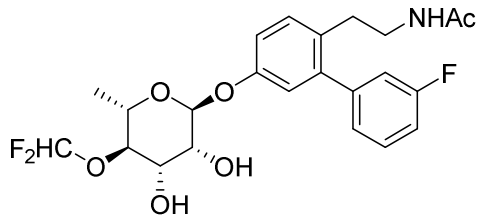
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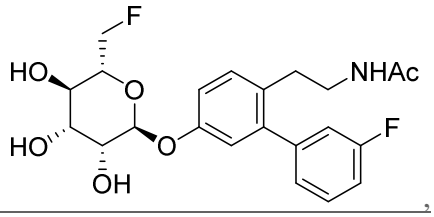
or a pharmaceutically acceptable salt of any of these formulas.

16. The compound of claim 15, wherein the compound is further defined as:

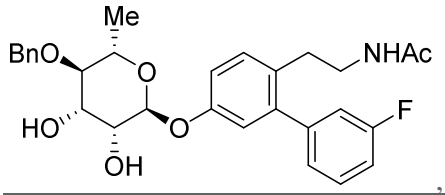
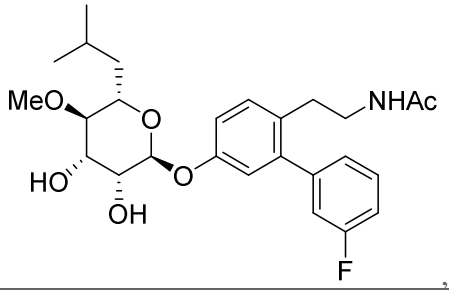
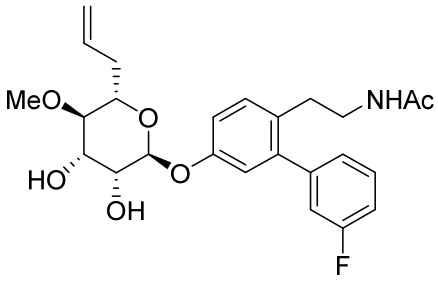
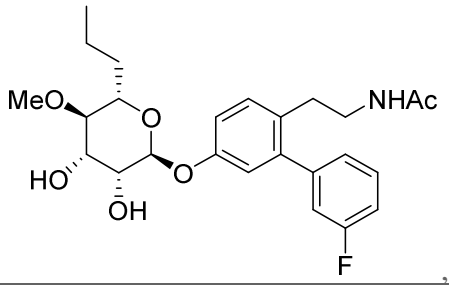
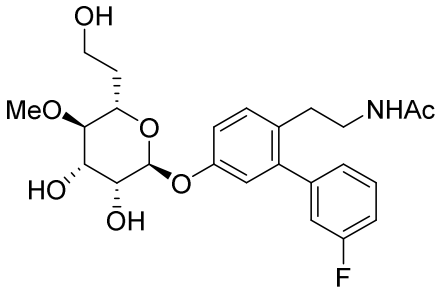
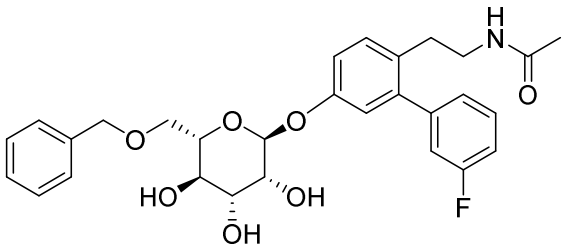
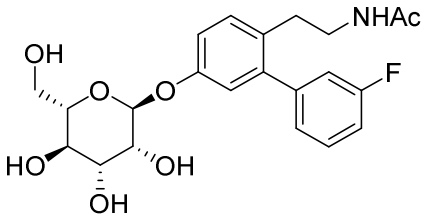
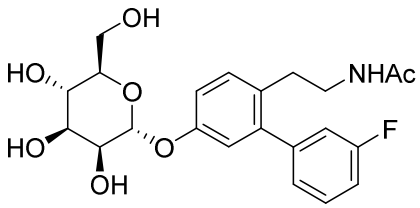
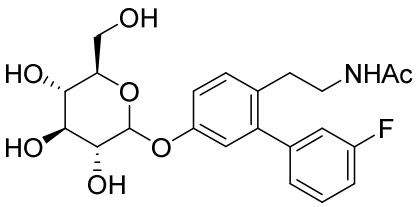
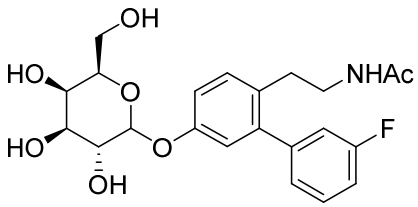
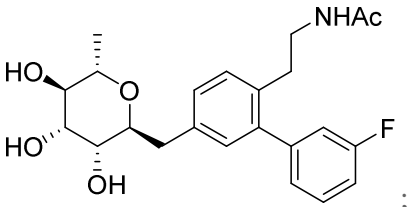


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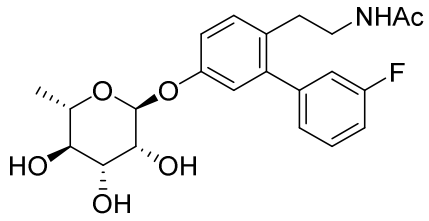
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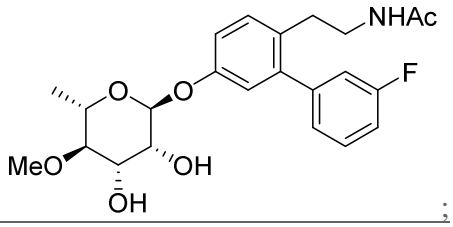

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or a pharmaceutically acceptable salt of any of these formulas.

17. The compound of claim 16, wherein the compound is further defined as:



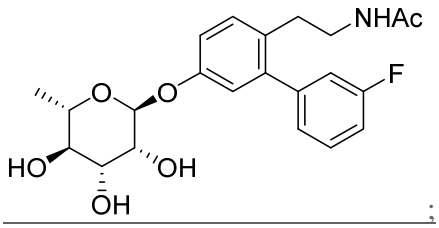
or



;

or a pharmaceutically acceptable salt of any of these formulas.

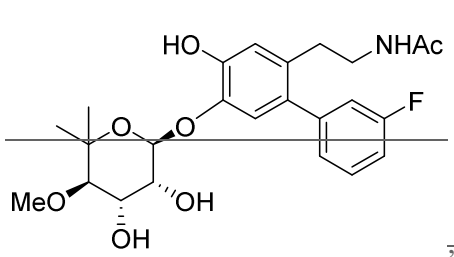
18. The compound of claim 17, wherein the compound is further defined as:



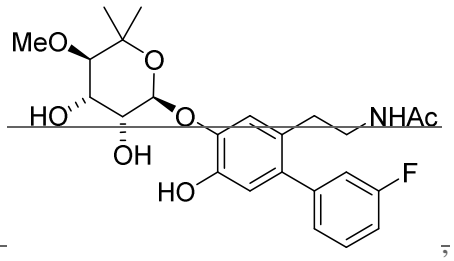
;

or a pharmaceutically acceptable salt of this formula.

~~16. A compound of the formula:~~



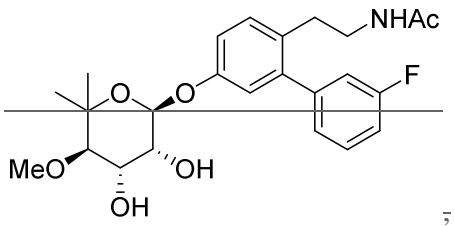
~~,~~



~~,~~

~~or a pharmaceutically acceptable salt of either of these formulas.~~

~~17. A compound of the formula:~~

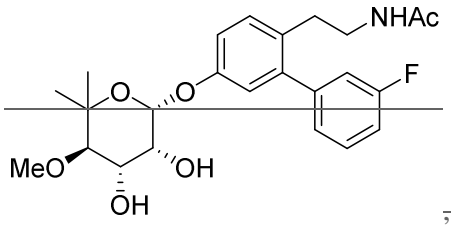


~~,~~

~~wherein the compound is essentially free of any other stereoisomers;~~

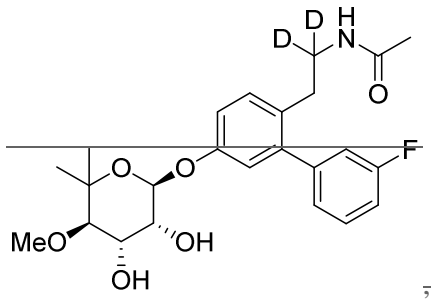
~~or a pharmaceutically acceptable salt of the formula.~~

~~18. A compound of the formula:~~



~~wherein the compound is essentially free of any other stereoisomers;~~
~~or a pharmaceutically acceptable salt of the formula.~~

~~19. A compound of the formula, or a pharmaceutically acceptable salt of the formula:~~



~~wherein the compound is greater than 90% deuterated at the positions indicated in the formula.~~

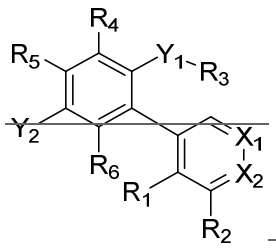
~~20~~19. A pharmaceutical composition comprising:

(A) a compound according to any one of claims 1-~~19~~18; and

(B) an excipient.

~~21~~20. A therapeutically effective amount of a compound or composition according to any one of claims 1-~~20~~ 19 for use in therapy.

~~22. A compound of the formula:~~



(XXXIII),

wherein:

n is 0, 1, or 2;

Y_1 is –alkanediyl$_{(C\leq 6)}$–, –C(O)–alkanediyl$_{(C\leq 6)}$–, –alkanediyl$_{(C\leq 6)}$–C(O)R_{17}, or a substituted version of any of these groups, wherein:

R_{17} is alkyl$_{(C\leq 6)}$ or substituted alkyl$_{(C\leq 6)}$;

Y_2 is hydroxy or mercapto;

R_1 is hydrogen, amino, halo, hydroxy, carboxy, or alkyl$_{(C\leq 6)}$, alkenyl$_{(C\leq 6)}$, alkynyl$_{(C\leq 6)}$, cycloalkyl$_{(C\leq 8)}$, heterocycloalkyl$_{(C\leq 8)}$, amido$_{(C\leq 6)}$, alkoxy$_{(C\leq 6)}$, alkylsulfonyl$_{(C\leq 6)}$, or a substituted version of any of these groups;

R_2 is hydrogen, amino, halo, hydroxy, carboxy, or alkyl$_{(C\leq 6)}$, alkenyl$_{(C\leq 6)}$, alkynyl$_{(C\leq 6)}$, cycloalkyl$_{(C\leq 8)}$, heterocycloalkyl$_{(C\leq 8)}$, aryl$_{(C\leq 12)}$, aralkyl$_{(C\leq 12)}$, amido$_{(C\leq 6)}$, alkoxy$_{(C\leq 6)}$, alkylthio$_{(C\leq 6)}$, alkylsulfonyl$_{(C\leq 6)}$, or a substituted version of any of these groups;

R_2 and R_{15} are taken together and are alkanediyl$_{(C\leq 6)}$, alkoxydiyl$_{(C\leq 6)}$, alkylaminodiyl$_{(C\leq 6)}$, or a substituted version of any of these groups;

R_3 is carboxy, –$NR_{11}R_{11}'$, or –C(O)$NR_{12}R_{12}'$, wherein:

R_{11} and R_{11}' are each independently hydrogen, alkyl$_{(C\leq 6)}$, substituted alkyl$_{(C\leq 6)}$, acyl$_{(C\leq 6)}$, or substituted acyl$_{(C\leq 6)}$;

R_{12} and R_{12}' are each independently hydrogen, alkyl$_{(C\leq 6)}$, or substituted alkyl$_{(C\leq 6)}$;

R_4, R_5, and R_6 are each independently absent, hydrogen, halo, alkyl$_{(C\leq 6)}$, substituted alkyl$_{(C\leq 6)}$, alkoxy$_{(C\leq 6)}$, substituted alkoxy$_{(C\leq 6)}$, aralkoxy$_{(C\leq 12)}$, substituted aralkoxy$_{(C\leq 12)}$, acyloxy$_{(C\leq 6)}$, or substituted acyloxy$_{(C\leq 6)}$;

X_1 is CR_{14} or N, wherein:

R_{14} is hydrogen, halo, hydroxy, or alkyl$_{(C\leq6)}$, alkenyl$_{(C\leq6)}$, alkynyl$_{(C\leq6)}$, alkoxy$_{(C\leq6)}$, alkylamino$_{(C\leq6)}$, –alkanediyl$_{(C\leq6)}$–heterocycloalkyl$_{(C\leq8)}$, or a substituted version of any of these groups; or

R_{14} and R_{15} are taken together and are alkanediyl$_{(C\leq6)}$, alkenediyl$_{(C\leq6)}$, alkoxydiyl$_{(C\leq6)}$, alkylaminodiyl$_{(C\leq6)}$, or a substituted version of any of these groups; and

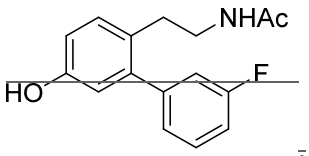
X_2 is CR_{15} or N, wherein:

R_{15} is hydrogen, halo, hydroxy, or alkyl$_{(C\leq6)}$, alkenyl$_{(C\leq6)}$, alkynyl$_{(C\leq6)}$, alkoxy$_{(C\leq6)}$, alkylamino$_{(C\leq6)}$, –alkanediyl$_{(C\leq6)}$–heterocycloalkyl$_{(C\leq8)}$, or a substituted version of any of these groups;

R_{15} and R_{14} are taken together and are alkanediyl$_{(C\leq6)}$, alkenediyl$_{(C\leq6)}$, alkoxydiyl$_{(C\leq6)}$, alkylaminodiyl$_{(C\leq6)}$, or a substituted version of any of these groups; or

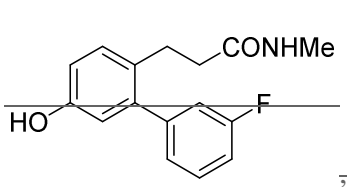
R_{15} and R_2 are taken together and are alkanediyl$_{(C\leq6)}$, alkoxydiyl$_{(C\leq6)}$, alkylaminodiyl$_{(C\leq6)}$, or a substituted version of any of these groups;

provided that the compound is not a compound of the formula:

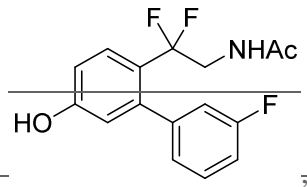


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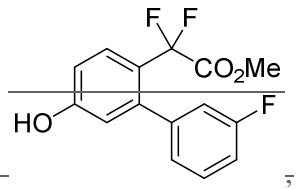
23. The compound of claim 22, wherein the compound is further defined as:



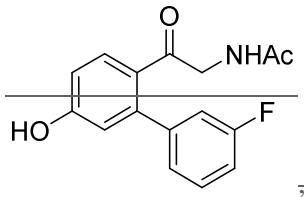
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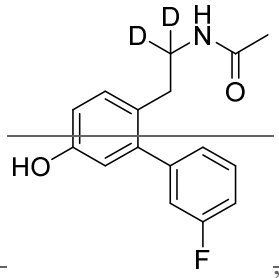
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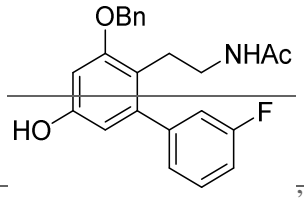
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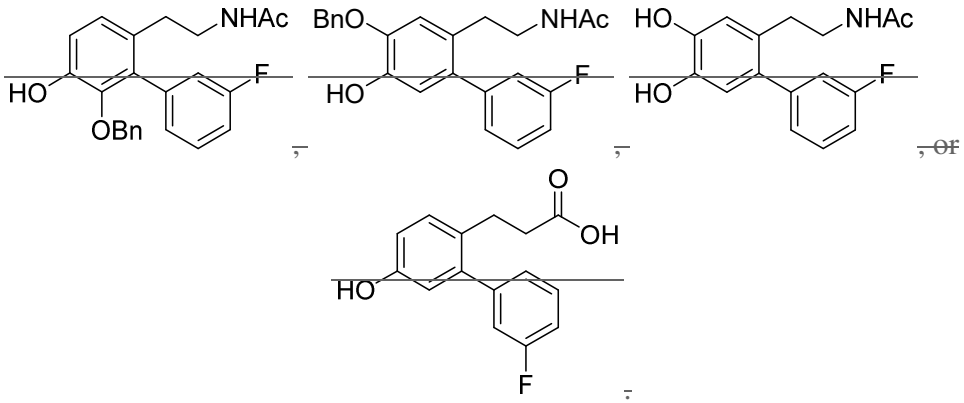
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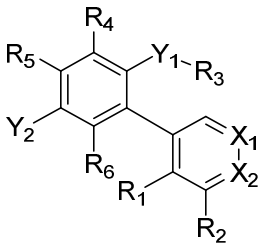


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2421. A method of making a compound according to any one of claims 1-19, comprising reacting (a) with (b) in the presence of a coupling agent:

(a) a compound of the formula:



(XXXIII),

wherein:

n is 0, 1, or 2;

Y_1 is −alkanediyl$_{(C\leq6)}$−, −C(O)−alkanediyl$_{(C\leq6)}$−, −alkanediyl$_{(C\leq6)}$−C(O)R_{17}, or a substituted version of any of these groups, wherein:

R_{17} is alkyl$_{(C\leq6)}$ or substituted alkyl$_{(C\leq6)}$;

Y_2 is hydroxy or mercapto;

R_1 is hydrogen, amino, halo, hydroxy, carboxy, or alkyl$_{(C\leq6)}$, alkenyl$_{(C\leq6)}$, alkynyl$_{(C\leq6)}$, cycloalkyl$_{(C\leq8)}$, heterocycloalkyl$_{(C\leq8)}$, amido$_{(C\leq6)}$, alkoxy$_{(C\leq6)}$, alkylsulfonyl$_{(C\leq6)}$, or a substituted version of any of these groups;

R_2 is hydrogen, amino, halo, hydroxy, carboxy, or alkyl$_{(C\leq6)}$, alkenyl$_{(C\leq6)}$, alkynyl$_{(C\leq6)}$, cycloalkyl$_{(C\leq8)}$, heterocycloalkyl$_{(C\leq8)}$, aryl$_{(C\leq12)}$, aralkyl$_{(C\leq12)}$, amido$_{(C\leq6)}$, alkoxy$_{(C\leq6)}$, alkylthio$_{(C\leq6)}$, alkylsulfonyl$_{(C\leq6)}$, or a substituted version of any of these groups;

R_2 and R_{15} are taken together and are alkanediyl$_{(C\leq6)}$, alkoxydiyl$_{(C\leq6)}$, alkylaminodiyl$_{(C\leq6)}$, or a substituted version of any of these groups;

R_3 is carboxy, $–NR_{11}R_{11}'$, or $–C(O)NR_{12}R_{12}'$, wherein:

R_{11} and R_{11}' are each independently hydrogen, $alkyl_{(C\leq6)}$, substituted $alkyl_{(C\leq6)}$, $acyl_{(C\leq6)}$, or substituted $acyl_{(C\leq6)}$;

R_{12} and R_{12}' are each independently hydrogen, $alkyl_{(C\leq6)}$, or substituted $alkyl_{(C\leq6)}$;

R_4, R_5, and R_6 are each independently absent, hydrogen, halo, $alkyl_{(C\leq6)}$, substituted $alkyl_{(C\leq6)}$, $alkoxy_{(C\leq6)}$, substituted $alkoxy_{(C\leq6)}$, $aralkoxy_{(C\leq12)}$, substituted $aralkoxy_{(C\leq12)}$, $acyloxy_{(C\leq6)}$, or substituted $acyloxy_{(C\leq6)}$;

X_1 is CR_{14} or N, wherein:

R_{14} is hydrogen, halo, hydroxy, or $alkyl_{(C\leq6)}$, $alkenyl_{(C\leq6)}$, $alkynyl_{(C\leq6)}$, $alkoxy_{(C\leq6)}$, $alkylamino_{(C\leq6)}$, $–alkanediyl_{(C\leq6)}–heterocycloalkyl_{(C\leq8)}$, or a substituted version of any of these groups; or

R_{14} and R_{15} are taken together and are $alkanediyl_{(C\leq6)}$, $alkenediyl_{(C\leq6)}$, $alkoxydiyl_{(C\leq6)}$, $alkylaminodiyl_{(C\leq6)}$, or a substituted version of any of these groups;

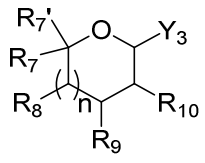
X_2 is CR_{15} or N, wherein:

R_{15} is hydrogen, halo, hydroxy, or $alkyl_{(C\leq6)}$, $alkenyl_{(C\leq6)}$, $alkynyl_{(C\leq6)}$, $alkoxy_{(C\leq6)}$, $alkylamino_{(C\leq6)}$, $–alkanediyl_{(C\leq6)}–heterocycloalkyl_{(C\leq8)}$, or a substituted version of any of these groups;

R_{15} and R_{14} are taken together and are $alkanediyl_{(C\leq6)}$, $alkenediyl_{(C\leq6)}$, $alkoxydiyl_{(C\leq6)}$, $alkylaminodiyl_{(C\leq6)}$, or a substituted version of any of these groups; or

R_{15} and R_2 are taken together and are $alkanediyl_{(C\leq6)}$, $alkoxydiyl_{(C\leq6)}$, $alkylaminodiyl_{(C\leq6)}$, or a substituted version of any of these groups;

(b) a compound of the formula:



(XXXIV),

wherein:

n is 0, 1, or 2;

Y_3 is hydroxy, halo, acyloxy$_{(C\leq 8)}$, iminooxy$_{(C\leq 8)}$,or a substituted version of either of these groups;

R_7 ~~and R_7' are each independently hydrogen,~~ is hydroxy, carboxy, or alkyl$_{(C\leq 8)}$, alkenyl$_{(C\leq 8)}$, alkynyl$_{(C\leq 8)}$, cycloalkyl$_{(C\leq 8)}$, heterocycloalkyl$_{(C\leq 8)}$, aryl$_{(C\leq 12)}$, heteroaryl$_{(C\leq 12)}$, aralkyl$_{(C\leq 12)}$, heteroaralkyl$_{(C\leq 12)}$, −alkanediyl$_{(C\leq 6)}$−OR_{13}, or a substituted version of any of these groups wherein:

R_{13} is aralkyl$_{(C\leq 12)}$ or substituted aralkyl$_{(C\leq 12)}$;

R_7' is hydrogen; ~~R_7 and R_7' are taken together and are −alkanediyl$_{(C\leq 7)}$−, −alkenediyl$_{(C\leq 7)}$−, or a substituted version of either of these groups;~~ and

R_8, R_9, and R_{10} are each independently hydrogen, hydroxy, or alkyl$_{(C\leq 6)}$, alkoxy$_{(C\leq 6)}$, acyl$_{(C\leq 6)}$, acyloxy$_{(C\leq 6)}$, aralkyl$_{(C\leq 12)}$, aralkoxy$_{(C\leq 12)}$, or a substituted version of any of these groups.