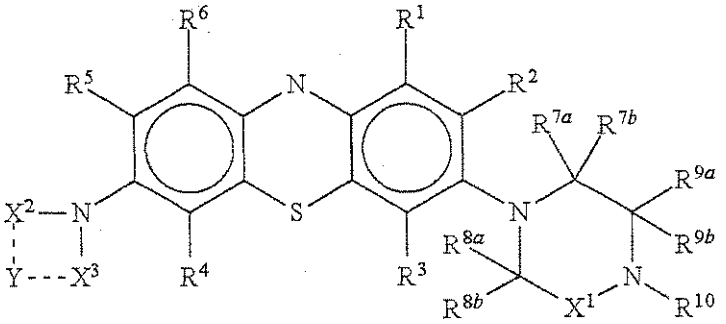
2 Summary ~~of Embodiments of the Invention~~

[0012a] In one aspect of the invention, there is provided a compound having the structure:



and its pharmaceutically acceptable salts, hydrates, and coordination compounds, wherein:

R^6 is halo or optionally substituted alkyl,

R^1-R^5 and R^{7a}-R^{9b} are selected independently from the group consisting of: hydrogen, halo, cyano, nitro, thio, amino, carboxyl, formyl, and optionally substituted alkyl, alkylcarbonyloxy, arylcarbonyloxy, heteroarylcarbonyloxy, cycloalkylcarbonyloxy, cycloheteroalkylcarbonyloxy, aralkylcarbonyloxy, heteroaralkylcarbonyloxy, (cycloalkyl)alkylcarbonyloxy, (cycloheteroalkyl)alkylcarbonyloxy, alkylcarbonyl, arylcarbonyl, heteroarylcarbonyl, cycloalkylcarbonyl, cycloheteroalkylcarbonyl, aralkylcarbonyl, heteroaralkylcarbonyl, (cycloalkyl)alkylcarbonyl, (cycloheteroalkyl)alkylcarbonyl, alkylaminocarbonyl, arylaminocarbonyl, aralkylaminocarbonyl, heteroarylaminocarbonyl, heteroaralkylaminocarbonyl, alkylcarbonylamino, arylcarbonylamino, heteroarylcarbonylamino, cycloalkylcarbonylamino, cycloheteroalkylcarbonylamino, aralkylcarbonylamino, heteroaralkylcarbonylamino, (cycloalkyl)alkylcarbonylamino, (cycloheteroalkyl)alkylcarbonylamino, dialkylamino, arylamino, diarylamino, aralkylamino, diaralkylamino, heteroarylamino, diheteroarylamino, heteroaralkylamino, diheteroaralkylamino, alkylsulfonyl, arylsulfonyl, heteroarylsuonyl, cycloalkylsulfonyl, aralkylcarbonylthiooxy, carbonylthio, heteroaralkylcarbonylthio, (cycloalkyloxy)carbonylthio, (cycloheteroalkyl)alkylcarbonylthio, alkyloxycarbonyl, aryloxycarbonyl, heteroaryloxycarbonyl, cycloalkyloxycarbonyl, cycloheteroalkyloxycarbonyl, aralkyloxycarbonyloxioxycarbonyl, heteroaralkyloxycarbonyl, (cycloalkyl)alkyloxycarbonyl, (cycloheteroalkyl)alkyloxycarbonyl, iminoalkyl, iminocycloalkyl, iminocycloheteroalkyl, iminoaralkyl, iminoheteroaralkyl, (cycloalkyl)iminoalkyl, and (cycloheteroalkyl)iminoalkyl;

R^{10} is hydrogen or optionally substituted alkyl, alkylcarbonyl, arylcarbonyl, heteroarylcarbonyl, cycloalkylcarbonyl, cycloheteroalkylcarbonyl, aralkylcarbonyl, heteroaralkylcarbonyl, (cycloalkyl)alkylcarbonyl, (cycloheteroalkyl)alkylcarbonyl,

alkylaminocarbonyl, arylaminocarbonyl, aralkylaminocarbonyl, heteroarylaminocarbonyl, heteroaralkylaminocarbonyl, alkylsulfonyl, arylsulfonyl, heteroarylsufonyl, cycloalkylsulfonyl, alkyloxycarbonyl, aryloxycarbonyl, heteroaryloxycarbonyl, cycloalkyloxycarbonyl, cycloheteroalkyloxycarbonyl, aralkyloxycarbonyloxycarbonyl, heteroaralkyloxycarbonyl, (cycloalkyl)alkyloxycarbonyl, and (cycloheteroalkyl)alkyloxycarbonyl;

X^1 is $(CR^{11}R^{11'})_m$, wherein m is either 1 or 2 such that each of R^{11} and $R^{11'}$, independently for each value of m, is selected independently from the group consisting of: hydrogen, halo, cyano, nitro, thio, amino, carboxyl, formyl, and optionally substituted alkyl, alkylcarbonyloxy, arylcarbonyloxy, heteroarylcarbonyloxy, cycloalkylcarbonyloxy, cycloheteroalkylcarbonyloxy, aralkylcarbonyloxy, heteroaralkylcarbonyloxy, (cycloalkyl)alkylcarbonyloxy, (cycloheteroalkyl)alkylcarbonyloxy, alkylcarbonyl, arylcarbonyl, heteroarylcarbonyl, cycloalkylcarbonyl, cycloheteroalkylcarbonyl, aralkylcarbonyl, heteroaralkylcarbonyl, (cycloalkyl)alkylcarbonyl, (cycloheteroalkyl)alkylcarbonyl, alkylaminocarbonyl, arylaminocarbonyl, aralkylaminocarbonyl, heteroarylaminocarbonyl, heteroaralkylaminocarbonyl, alkylcarbonylamino, arylcarbonylamino, heteroarylcarbonylamino, cycloalkylcarbonylamino, cycloheteroalkylcarbonylamino, aralkylcarbonylamino, heteroaralkylcarbonylamino, (cycloalkyl)alkylcarbonylamino, (cycloheteroalkyl)alkylcarbonylamino, dialkylamino, arylamino, diarylamino, aralkylamino, diaralkylamino, heteroarylamino, diheteroarylamino, heteroaralkylamino, diheteroaralkylamino, alkylsulfonyl, arylsulfonyl, heteroarylsulfonyl, cycloalkylsulfonyl, aralkylcarbonylthiooxy, carbonylthio, heteroaralkylcarbonylthio, (cycloalkyloxy)carbonylthio, (cycloheteroalkyl)alkylcarbonylthio, alkyloxycarbonyl, aryloxycarbonyl, heteroaryloxycarbonyl, cycloalkyloxycarbonyl, cycloheteroalkyloxycarbonyl, aralyoxycarbonyloxloxycarbonyl, heteroaralkyloxycarbonyl, (cycloalkyl)alkyloxycarbonyl, (cycloheteroalkyl)alkyloxycarbonyl, iminoalkyl, iminocycloalkyl, iminocycloheteroalkyl, iminoaralkyl, iminoheteroaralkyl, (cycloalkyl)iminoalkyl, and (cycloheteroalkyl)iminoalkyl

Y is optionally present; and

when Y is present, Y is NR^{12}, O, S, SO, or SO^2, or a single or double bond between X^2 and X^3;

R^{12} is hydrogen or optionally substituted alkyl, alkylcarbonyl, arylcarbonyl, heteroarylcarbonyl, cycloalkylcarbonyl, cycloheteroalkylcarbonyl, aralkylcarbonyl, heteroaralkylcarbonyl, (cycloalkyl)alkylcarbonyl, (cycloheteroalkyl)alkylcarbonyl, alkylaminocarbonyl, arylaminocarbonyl, aralkylaminocarbonyl, heteroarylaminocarbonyl, heteroaralkylaminocarbonyl, alkylsulfonyl, arylsulfonyl, heteroarylsufonyl, cycloalkylsulfonyl, alkyloxycarbonyl, aryloxycarbonyl, heteroaryloxycarbonyl, cycloalkyloxycarbonyl, cycloheteroalkyloxycarbonyl, aralkyloxycarbonyloxycarbonyl, heteroaralkyloxycarbonyl, (cycloalkyl)alkyloxycarbonyl, and (cycloheteroalkyl)alkyloxycarbonyl; and

X^2 and X^3 are $(CR^{13}R^{13'})_n$ and $(CR^{14}R^{14'})_o$ respectively, wherein each of n and o is independently either 1, 2, or 3 such that the sum n + o is either 3, 4, or 5, and independently for each value of the n and o methylene units of X^2 and X^3, each of R^{13}, $R^{13'}$, R^{14}, and $R^{14'}$ is selected independently from the group consisting of: hydrogen, halo, cyano, nitro, thio, amino, carboxy, formyl, and optionally substituted alkyl, alkylcarbonyloxy, arylcarbonyloxy, heteroarylcarbonyloxy, cycloalkylcarbonyloxy, cycloheteroalkylcarbonyloxy, aralkylcarbonyloxy, heteroaralkylcarbonyloxy, (cycloalkyl)alkylcarbonyloxy, (cycloheteroalkyl)alkylcarbonyloxy, alkylcarbonyl, arylcarbonyl, heteroarylcarbonyl, cycloalkylcarbonyl, cycloheteroalkylcarbonyl, aralkylcarbonyl, heteroaralkylcarbonyl, (cycloalkyl)alkylcarbonyl, (cycloheteroalkyl)alkylcarbonyl, alkylaminocarbonyl, arylaminocarbonyl, aralkylaminocarbonyl, heteroarylaminocarbonyl, heteroaralkylaminocarbonyl, alkylcarbonylamino, arylcarbonylamino, heteroarylcarbonylamino, cycloalkylcarbonylamino, cycloheteroalkylcarbonylamino, aralkylcarbonylamino, heteroaralkylcarbonylamino, (cycloalkyl)alkylcarbonylamino, (cycloheteroalkyl)alkylcarbonylamino, dialkylamino, arylamino, diarylamino, aralkylamino, diaralkylamino, heteroarylamino, diheteroarylamino, heteroaralkylamino, diheteroaralkylamino, alkylsulfonyl, arylsulfonyl, heteroarylsulfonyl, cycloalkylsulfonyl, aralkylcarbonylthiooxy, carbonylthio, heteroaralkylcarbonylthio, (cycloalkyloxy)carbonylthio, (cycloheteroalkyl)alkylcarbonylthio, alkyloxycarbonyl, aryloxycarbonyl, heteroaryloxycarbonyl, cycloalkyloxycarbonyl, cycloheteroalkyloxycarbonyl, aralyoxycarbonyloxloxycarbonyl, heteroaralkyloxycarbonyl, (cycloalkyl)alkyloxycarbonyl, (cycloheteroalkyl)alkyloxycarbonyl, iminoalkyl, iminocycloalkyl, iminocycloheteroalkyl, iminoaralkyl, iminoheteroaralkyl, (cycloalkyl)iminoalkyl, and (cycloheteroalkyl)iminoalkyl; and

when Y is not present X^2 is R^{15} and X^3 is R^{16}, wherein

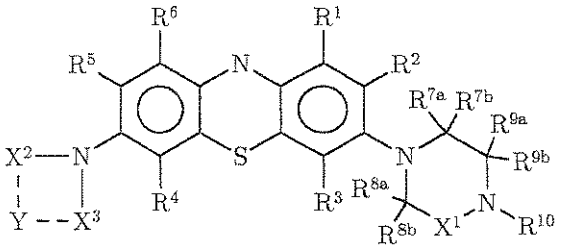
R^{15} and R^{16} are selected independently from the group consisting of: hydrogen and optionally substituted alkyl, alkylcarbonyl, arylcarbonyl, heteroarylcarbonyl, cycloalkylcarbonyl, cycloheteroalkylcarbonyl, aralkylcarbonyl, heteroaralkylcarbonyl, (cycloalkyl)alkylcarbonyl, (cycloheteroalkyl)alkylcarbonyl, alkylaminocarbonyl, arylaminocarbonyl, aralkylaminocarbonyl, heteroarylaminocarbonyl, heteroaralkylaminocarbonyl, alkylsulfonyl, arylsulfonyl, heteroarylsufonyl, cycloalkylsulfonyl, alkyloxycarbonyl, aryloxycarbonyl, heteroaryloxycarbonyl, cycloalkyloxycarbonyl, cycloheteralkyloxycarbonyl, aralkyloxycarbonyloxycarbonyl, heteroaralkyloxycarbonyl, (cycloalkyl)alkyloxycarbonyl, and (cycloheteroalkyl)alkyloxycarbonyl

wherein when said optionally substituted alkyl is substituted, said substitution is with a group which is hydrooxyl, nitro, amino, imino, cyano, halo, thio, thioamido, amidino, oxo, oxamidino, methoxamidino, imidino, guanidino, sulfonamido, carboxyl, formyl, lower alkyl, halolower alkyl, lower alkoxy, halolower alkoxy, lower alkoxyalkyl, alkylcarbonyl, arylcarbonyl,

aralkylcarbonyl, heteroarylcarbonyl, heteroaralkylcarbonyl, alkylthio, aminoalkyl, or cyanoalkyl.

[0013] The present disclosure~~invention~~ provides a variety of compounds, methods, and compostions for treating viral infections, especially those described above. Various embodiments of the invention include, but are not limited to, the following:

[0014] Disclosed herein are~~In a first aspect, the invention provides novel~~ compounds having useful antiviral activity. In one embodiment, the present disclosure~~invention~~ provides compounds having the structure:



and their pharmaceutically acceptable salts, hydrates, and coordination compounds. R^1–R^{9b} are selected independently from the group consisting of: hydrogen, halo, cyano, nitro, thio, amino, carboxyl, formyl, and optionally substituted alkyl, alkylcarbonyloxy, arylcarbonyloxy, heteroarylcarbonyloxy, cycloalkylcarbonyloxy, cycloheteroalkylcarbonyloxy, aralkycarbonyloxy, heteroaralkylcarbonyloxy, (cycloalkyl)alkylcarbonyloxy, (cycloheteroalkyl)alkylcarbonyloxy, alkylcarbonyl, arylcarbonyl, heteroarylcarbonyl, cycloalkycarbonyl, cycloheteroalkycarbonyl, aralkycarbonyl, heteroaralkylcarbonyl, (cycloalkyl)alkylcarbonyl, (cycloheteroalkyl)alkylcarbonyl, alkylaminocarbonyl, arylaminocarbonyl, aralkylaminocarbonyl, heteroarylaminocarbonyl, heteroaralkylaminocarbonyl, alkylcarbonylamino, arylcarbonylamino, heteroarylcarbonylamino, cycloalkylcarbonylamino, cycloheteroalkylcarbonylamino, aralkylcarbonylamino, heteroaralkylcarbonylamino, (cycloalkyl)alkylcarbonylamino, (cycloheteroalkyl)alkylcarbonylamino, dialkylamino, arylamino, diarylamino, aralkylamino, diaralkylamino, heteroarylamino, diheteroarylamino, heteroaralkylamino, diheteroaralkylamino, alkylsulfonyl, arylsulonyl, heteroarylsuonyl, cycloalkylsulfonyl, aralkycarbonylthiooxy, carbonylthio, heteroaralkylcarbonylthio, (cycloalkyloxy)carbonylthio, (cycloheteroalkyl)alkylcarbonylthio, alkyloxycarbonyl, aryloxy-

teroaralkylamino, diheteroaralkylamino, alkylsulfonyl, arylsulonyl, heteroarylsuony, cycloalkylsulfonyl, aralkycarbonylthioooxy, carbonylythio, heteroaralkylcarbonylthio, (cycloalkyloxy)carbonylthio, (cycloheteroalkyl)alkylcarbonylthio, alkyloxycarbonyl, aryloxycarbonyl, heteroaryloxycarbonyl, cycloalkyloxycarbonyl, cycloheteroalkyloxycarbonyl, aralyoxycarbonyloxloxycarbonyl, heteroaralkyloxycarbonyl, (cycloalkyl)alkyloxycarbonyl, (cycloheteroalkyl)alkyloxycarbonyl, iminoalkyl, iminocycloalkyl, iminocycloheteroalkyl, iminoaralkyl, iminoheteroaralkyl, (cycloalkyl)iminoalkyl, and (cycloheteroalkyl)iminoalkyl.

[0024] In another embodimentaspect, the present disclosureinvention provides methods for treating a viral disease in a mammal afflicted with such disease, comprising administering to such mammal a therapeutically effective amount of the compound as disclosed hereinof the invention. In more specific embodiments, the viral disease is an etiological component of a respiratory syndrome selected from the group consisting of: bronchiolitis, the common cold, croup, influenze, and pneumonia.

3 Brief Description of the Drawings

[0025] The Figure is a table showing the anti-viral activies of some compounds of the invention as determined by the methods described herein.

4 Detailed Description of Some Embodiments of the Invention

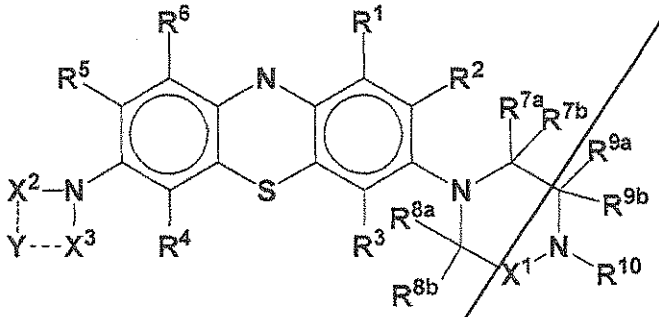
4.1 Definitions

[0026] The following terms are used herein as defined below unless specifically stated otherwise:

Optionally substituted refers to the replacement of hydrogen with a univalent or divalent radical. Suitable substitution groups include, for example, hydroxyl, nitro, amino, imino, cyano, halo, thio, thioamido, amidino, oxo, oxamidino, methoxamidino, imidino, guanidino, sulfonamido, carboxyl, form-

CLAIMS

1. A compound having the structure:



and its pharmaceutically acceptable salts, hydrates, and coordination compounds, wherein:

R^1 and R^6 are independently optionally substituted alkyl or halo,

R^2–R^5 and R^7-R^{9b} are selected independently from the group consisting of: hydrogen, halo, cyano, nitro, thio, amino, carboxyl, formyl, and optionally substituted alkyl, R^1–R^{9b} are selected independently from the group consisting of: hydrogen, halo, cyano, nitro, thio, amino, carboxyl, formyl, and optionally substituted alkyl, alkylcarbonyloxy, arylcarbonyloxy, heteroarylcarbonyloxy, cycloalkylcarbonyloxy, cycloheteroalkylcarbonyloxy, aralkylcarbonyloxy, heteroaralkylcarbonyloxy, (cycloalkyl)alkylcarbonyloxy, (cycloheteroalkyl)alkylcarbonyloxy, alkylcarbonyl, arylcarbonyl, heteroarylcarbonyl, cycloalkylcarbonyl, cycloheteroalkylcarbonyl, aralkylcarbonyl, heteroaralkylcarbonyl, (cycloalkyl)alkylcarbonyl, (cycloheteroalkyl)alkylcarbonyl, alkylaminocarbonyl, arylaminocarbonyl, aralkylaminocarbonyl, heteroarylaminocarbonyl, heteroaralkylaminocarbonyl, alkylcarbonylamino, arylcarbonylamino, heteroarylcarbonylamino, cycloalkylcarbonylamino, cycloheteroalkylcarbonylamino, aralkylcarbonylamino, heteroaralkylcarbonylamino, (cycloalkyl)alkylcarbonylamino, (cycloheteroalkyl)alkylcarbonylamino, dialkylamino, arylamino, diarylamino, aralkylamino, diaralkylamino, heteroarylamino, diheteroarylamino, heteroaralkylamino, diheteroaralkylamino, alkylsulfonyl, arylsulfonyl, heteroarylsuonyl, cycloalkylsulfonyl, aralkylcarbonylthiooxy, carbonylthio, heteroaralkylcarbonylthio, (cycloalkyloxy)carbonylthio, (cycloheteroalkyl)alkylcarbonylthio, alkyloxycarbonyl, aryloxycarbonyl,

heteroaryloxycarbonyl, cycloalkyloxycarbonyl, cycloheteroalkyloxycarbonyl, aralkyloxycarbonyloxloxycarbonyl, heteroaralkyloxycarbonyl, (cycloalkyl)alkyloxycarbonyl, (cycloheteroalkyl)alkyloxycarbonyl, iminoalkyl, iminocycloalkyl, iminocycloheteroalkyl, iminoaralkyl, iminoheteroaralkyl, (cycloalkyl)iminoalkyl, and (cycloheteroalkyl)iminoalkyl;

R^{10} is hydrogen or optionally substituted alkyl, alkylcarbonyl, arylcarbonyl, heteroarylcarbonyl, cycloalkylcarbonyl, cycloheteroalkylcarbonyl, aralkylcarbonyl, heteroaralkylcarbonyl, (cycloalkyl)alkylcarbonyl, (cycloheteroalkyl)alkylcarbonyl, alkylaminocarbonyl, arylaminocarbonyl, aralkylaminocarbonyl, heteroarylaminocarbonyl, heteroaralkylaminocarbonyl, alkylsulfonyl, arylsulfonyl, heteroarylsufonyl, cycloalkylsulfonyl, alkyloxycarbonyl, aryloxycarbonyl, heteroaryloxycarbonyl, cycloalkyloxycarbonyl, cycloheteroalkyloxycarbonyl, aralkyloxycarbonyloxycarbonyl, heteroaralkyloxycarbonyl, (cycloalkyl)alkyloxycarbonyl, and (cycloheteroalkyl)alkyloxycarbonyl;

X^1 is $(CR^{11}R^{11'})_m$, wherein m is either 1 or 2 such that each of R^{11} and $R^{11'}$, independently for each value of m, is selected independently from the group consisting of: hydrogen, halo, cyano, nitro, thio, amino, carboxyl, formyl, and optionally substituted alkyl, alkylcarbonyloxy, arylcarbonyloxy, heteroarylcarbonyloxy, cycloalkylcarbonyloxy, cycloheteroalkylcarbonyloxy, aralkylcarbonyloxy, heteroaralkylcarbonyloxy, (cycloalkyl)alkylcarbonyloxy, (cycloheteroalkyl)alkylcarbonyloxy, alkylcarbonyl, arylcarbonyl, heteroarylcarbonyl, cycloalkylcarbonyl, cycloheteroalkylcarbonyl, aralkylcarbonyl, heteroaralkylcarbonyl, (cycloalkyl)alkylcarbonyl, (cycloheteroalkyl)alkylcarbonyl, alkylaminocarbonyl, arylaminocarbonyl, aralkylaminocarbonyl, heteroarylaminocarbonyl, heteroaralkylaminocarbonyl, alkylcarbonylamino, arylcarbonylamino, heteroarylcarbonylamino, cycloalkylcarbonylamino, cycloheteroalkylcarbonylamino, aralkylcarbonylamino, heteroaralkylcarbonylamino, (cycloalkyl)alkylcarbonylamino, (cycloheteroalkyl)alkylcarbonylamino, dialkylamino, arylamino, diarylamino, aralkylamino, diaralkylamino, heteroarylamino, diheteroarylamino, heteroaralkylamino, diheteroaralkylamino, alkylsulfonyl, arylsulfonyl, heteroarylsulfonyl, cycloalkylsulfonyl, aralkylcarbonylthiooxy, carbonylthio,

heteroaralkylcarbonylthio, (cycloalkyloxy)carbonylthio, (cycloheteroalkyl)alkylcarbonylthio, alkyloxycarbonyl, aryloxycarbonyl, heteroaryloxycarbonyl, cycloalkyloxycarbonyl, cycloheteroalkyloxycarbonyl, aralyoxycarbonyloxloxycarbonyl, heteroaralkyloxycarbonyl, (cycloalkyl)alkyloxycarbonyl, (cycloheteroalkyl)alkyloxycarbonyl, iminoalkyl, iminocycloalkyl, iminocycloheteroalkyl, iminoaralkyl, iminoheteroaralkyl, (cycloalkyl)iminoalkyl, and (cycloheteroalkyl)iminoalkyl

Y is optionally present; and

when Y is present, Y is NR^{12}, O, S, SO, or SO^2, or a single or double bond between X^2 and X^3;

R^{12} is hydrogen or optionally substituted alkyl, alkylcarbonyl, arylcarbonyl, heteroarylcarbonyl, cycloalkylcarbonyl, cycloheteroalkylcarbonyl, aralkylcarbonyl, heteroaralkylcarbonyl, (cycloalkyl)alkylcarbonyl, (cycloheteroalkyl)alkylcarbonyl, alkylaminocarbonyl, arylaminocarbonyl, aralkylaminocarbonyl, heteroarylaminocarbonyl, heteroaralkylaminocarbonyl, alkylsulfonyl, arylsulfonyl, heteroarylsufonyl, cycloalkylsulfonyl, alkyloxycarbonyl, aryloxycarbonyl, heteroaryloxycarbonyl, cycloalkyloxycarbonyl, cycloheteroalkyloxycarbonyl, aralkyloxycarbonyloxycarbonyl, heteroaralkyloxycarbonyl, (cycloalkyl)alkyloxycarbonyl, and (cycloheteroalkyl)alkyloxycarbonyl; and

X^2 and X^3 are $(CR^{13}R^{13'})_n$ and $(CR^{14}R^{14'})_o$ respectively, wherein each of m and o independently either 1, 2, or 3 such that the sum m + o is either 3, 4, or 5, and for each of the m and o methylene units of X^2 and X^3, each of R^{13a}–R^{14b} is selected independently from the group consisting of: hydrogen, halo, cyano, nitro, thio, amino, carboxy, formyl, and optionally substituted alkyl, alkylcarbonyloxy, arylcarbonyloxy, heteroarylcarbonyloxy, cycloalkylcarbonyloxy, cycloheteroalkylcarbonyloxy, aralkylcarbonyloxy, heteroaralkylcarbonyloxy, (cycloalkyl)alkylcarbonyloxy, (cycloheteroalkyl)alkylcarbonyloxy, alkylcarbonyl, arylcarbonyl,

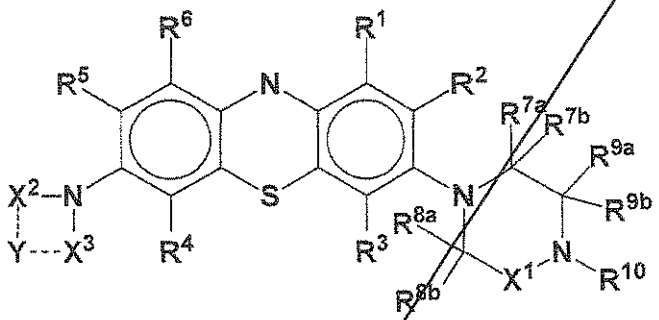
heteroarylcarbonyl, cycloalkylcarbonyl, cycloheteroalkylcarbonyl, aralkylcarbonyl, heteroaralkylcarbonyl, (cycloalkyl)alkylcarbonyl, (cycloheteroalkyl)alkylcarbonyl, alkylaminocarbonyl, arylaminocarbonyl, aralkylaminocarbonyl, heteroarylaminocarbonyl, heteroaralkylaminocarbonyl, alkylcarbonylamino, arylcarbonylamino, heteroarylcarbonylamino, cycloalkylcarbonylamino, cycloheteroalkylcarbonylamino, aralkylcarbonylamino, heteroaralkylcarbonylamino, (cycloalkyl)alkylcarbonylamino, (cycloheteroalkyl)alkylcarbonylamino, dialkylamino, arylamino, diarylamino, aralkylamino, diaralkylamino, heteroarylamino, diheteroarylamino, heteroaralkylamino, diheteroaralkylamino, alkylsulfonyl, arylsulfonyl, heteroarylsulfonyl, cycloalkylsulfonyl, aralkylcarbonylthiooxy, carbonylthio, heteroaralkylcarbonylthio, (cycloalkyloxy)carbonylthio, (cycloheteroalkyl)alkylcarbonylthio, alkyloxycarbonyl, aryloxycarbonyl, heteroaryloxycarbonyl, cycloalkyloxycarbonyl, cycloheteroalkyloxycarbonyl, aralyoxycarbonyloxloxycarbonyl, heteroaralkyloxycarbonyl, (cycloalkyl)alkyloxycarbonyl, (cycloheteroalkyl)alkyloxycarbonyl, iminoalkyl, iminocycloalkyl, iminocycloheteroalkyl, iminoaralkyl, iminoheteroaralkyl, (cycloalkyl)iminoalkyl, and (cycloheteroalkyl)iminoalkyl; and

when Y is not present X^2 is R^{15} and X^3 is R^{16}, wherein

R^{15} and R^{16} are selected independently from the group consisting of: hydrogen and optionally substituted alkyl, alkylcarbonyl, arylcarbonyl, heteroarylcarbonyl, cycloalkylcarbonyl, cycloheteroalkylcarbonyl, aralkylcarbonyl, heteroaralkylcarbonyl, (cycloalkyl)alkylcarbonyl, (cycloheteroalkyl)alkylcarbonyl, alkylaminocarbonyl, arylaminocarbonyl, aralkylaminocarbonyl, heteroarylaminocarbonyl, heteroaralkylaminocarbonyl, alkylsulfonyl, arylsulfonyl, heteroarylsufonyl, cycloalkylsulfonyl, alkyloxycarbonyl, aryloxycarbonyl, heteroaryloxycarbonyl, cycloalkyloxycarbonyl,

cycloheteralkyloxycarbonyl, aralkyloxycarbonyloxycarbonyl, heteroaralkyloxycarbonyl, (cycloalkyl)alkyloxycarbonyl, and (cycloheteroalkyl)alkyloxycarbonyl.

2. A compound having the structure:



and its pharmaceutically acceptable salts, hydrates, and coordination compounds, wherein:

R^1 is independently optionally substituted alkyl or halo,

R^2–R^{9b} are selected independently from the group consisting of: hydrogen, halo, cyano, nitro, thio, amino, carboxyl, formyl, and optionally substituted alkyl, R^1–R^{9b} are selected independently from the group consisting of: hydrogen, halo, cyano, nitro, thio, amino, carboxyl, formyl, and optionally substituted alkyl, alkylcarbonyloxy, arylcarbonyloxy, heteroarylcarbonyloxy, cycloalkylcarbonyloxy, cycloheteroalkylcarbonyloxy, aralkylcarbonyloxy, heteroaralkylcarbonyloxy, (cycloalkyl)alkylcarbonyloxy, (cycloheteroalkyl)alkylcarbonyloxy, alkylcarbonyl, arylcarbonyl, heteroarylcarbonyl, cycloalkylcarbonyl, cycloheteroalkylcarbonyl, aralkylcarbonyl, heteroaralkylcarbonyl, (cycloalkyl)alkylcarbonyl, (cycloheteroalkyl)alkylcarbonyl, alkylaminocarbonyl, arylaminocarbonyl, aralkylaminocarbonyl, heteroarylaminocarbonyl, heteroaralkylaminocarbonyl, alkylcarbonylamino, arylcarbonylamino, heteroarylcarbonylamino, cycloalkylcarbonylamino, cycloheteroalkylcarbonylamino, aralkylcarbonylamino, heteroaralkylcarbonylamino, (cycloalkyl)alkylcarbonylamino, (cycloheteroalkyl)alkylcarbonylamino, dialkylamino, arylamino, diarylamino, aralkylamino, diaralkylamino, heteroarylamino, diheteroarylamino, heteroaralkylamino, diheteroaralkylamino, alkylsulfonyl, arylsulfonyl, heteroarylsuonyl, cycloalkylsulfonyl, aralkylcarbonylthiooxy, carbonylthio,

heteroaralkylcarbonylthio, (cycloalkyloxy)carbonylthio, (cycloheteroalkyl)alkylcarbonylthio, alkyloxycarbonyl, aryloxycarbonyl, heteroaryloxycarbonyl, cycloalkyloxycarbonyl, cycloheteroalkyloxycarbonyl, aralkyloxycarbonyloxloxycarbonyl, heteroaralkyloxycarbonyl, (cycloalkyl)alkyloxycarbonyl, (cycloheteroalkyl)alkyloxycarbonyl, iminoalkyl, iminocycloalkyl, iminocycloheteroalkyl, iminoaralkyl, iminoheteroaralkyl, (cycloalkyl)iminoalkyl, and (cycloheteroalkyl)iminoalkyl;

R^{10} is hydrogen or optionally substituted alkyl, alkylcarbonyl, arylcarbonyl, heteroarylcarbonyl, cycloalkylcarbonyl, cycloheteroalkylcarbonyl, aralkylcarbonyl, heteroaralkylcarbonyl, (cycloalkyl)alkylcarbonyl, (cycloheteroalkyl)alkylcarbonyl, alkylaminocarbonyl, arylaminocarbonyl, aralkylaminocarbonyl, heteroarylaminocarbonyl, heteroaralkylaminocarbonyl, alkylsulfonyl, arylsulfonyl, heteroarylsufonyl, cycloalkylsulfonyl, alkyloxycarbonyl, aryloxycarbonyl, heteroaryloxycarbonyl, cycloalkyloxycarbonyl, cycloheteroalkyloxycarbonyl, aralkyloxycarbonyloxycarbonyl, heteroaralkyloxycarbonyl, (cycloalkyl)alkyloxycarbonyl, and (cycloheteroalkyl)alkyloxycarbonyl;

X^1 is $(CR^{11}R^{11'})_m$, wherein m is either 1 or 2 such that each of R^{11} and $R^{11'}$, independently for each value of m, is selected independently from the group consisting of: hydrogen, halo, cyano, nitro, thio, amino, carboxyl, formyl, and optionally substituted alkyl, alkylcarbonyloxy, arylcarbonyloxy, heteroarylcarbonyloxy, cycloalkylcarbonyloxy, cycloheteroalkylcarbonyloxy, aralkylcarbonyloxy, heteroaralkylcarbonyloxy, (cycloalkyl)alkylcarbonyloxy, (cycloheteroalkyl)alkylcarbonyloxy, alkylcarbonyl, arylcarbonyl, heteroarylcarbonyl, cycloalkylcarbonyl, cycloheteroalkylcarbonyl, aralkylcarbonyl, heteroaralkylcarbonyl, (cycloalkyl)alkylcarbonyl, (cycloheteroalkyl)alkylcarbonyl, alkylaminocarbonyl, arylaminocarbonyl, aralkylaminocarbonyl, heteroarylaminocarbonyl, heteroaralkylaminocarbonyl, alkylcarbonylamino, arylcarbonylamino, heteroarylcarbonylamino, cycloalkylcarbonylamino, cycloheteroalkylcarbonylamino, aralkylcarbonylamino, heteroaralkylcarbonylamino, (cycloalkyl)alkylcarbonylamino, (cycloheteroalkyl)alkylcarbonylamino, dialkylamino, arylamino, diarylamino, aralkylamino, diaralkylamino, heteroarylamino, diheteroarylamino,

heteroaralkylamino, diheteroaralkylamino, alkylsulfonyl, arylsulfonyl, heteroarylsulfonyl, cycloalkylsulfonyl, aralkylcarbonylthiooxy, carbonylthio, heteroaralkylcarbonylthio, (cycloalkyloxy)carbonylthio, (cycloheteroalkyl)alkylcarbonylthio, alkyloxycarbonyl, aryloxycarbonyl, heteroaryloxycarbonyl, cycloalkyloxycarbonyl, cycloheteroalkyloxycarbonyl, aralyoxycarbonyloxloxycarbonyl, heteroaralkyloxycarbonyl, (cycloalkyl)alkyloxycarbonyl, (cycloheteroalkyl)alkyloxycarbonyl, iminoalkyl, iminocycloalkyl, iminocycloheteroalkyl, iminoaralkyl, iminoheteroaralkyl, (cycloalkyl)iminoalkyl, and (cycloheteroalkyl)iminoalkyl

Y is optionally present; and

when Y is present, Y is NR^{12}, O, S, SO, or SO^2, or a single or double bond between X^2 and X^3;

R^{12} is hydrogen or optionally substituted alkyl, alkylcarbonyl, arylcarbonyl, heteroarylcarbonyl, cycloalkylcarbonyl, cycloheteroalkylcarbonyl, aralkylcarbonyl, heteroaralkylcarbonyl, (cycloalkyl)alkylcarbonyl, (cycloheteroalkyl)alkylcarbonyl, alkylaminocarbonyl, arylaminocarbonyl, aralkylaminocarbonyl, heteroarylaminocarbonyl, heteroaralkylaminocarbonyl, alkylsulfonyl, arylsulfonyl, heteroarylsufonyl, cycloalkylsulfonyl, alkyloxycarbonyl, aryloxycarbonyl, heteroaryloxycarbonyl, cycloalkyloxycarbonyl, cycloheteroalkyloxycarbonyl, aralkyloxycarbonyloxycarbonyl, heteroaralkyloxycarbonyl, (cycloalkyl)alkyloxycarbonyl, and (cycloheteroalkyl)alkyloxycarbonyl; and

X^2 and X^3 are $(CR^{13}R^{13'})_n$ and $(CR^{14}R^{14'})_o$ respectively, wherein each of m and o independently either 1, 2, or 3 such that the sum m + o is either 3, 4, or 5, and for each of the m and o methylene units of X^2 and X^3, each of R^{13a}--R^{14b} is selected independently from the group consisting of: hydrogen, halo, cyano, nitro, thio, amino, carboxy, formyl, and optionally substituted alkyl, alkylcarbonyloxy, arylcarbonyloxy, heteroarylcarbonyloxy, cycloalkylcarbonyloxy, cycloheteroalkylcarbonyloxy, aralkylcarbonyloxy,

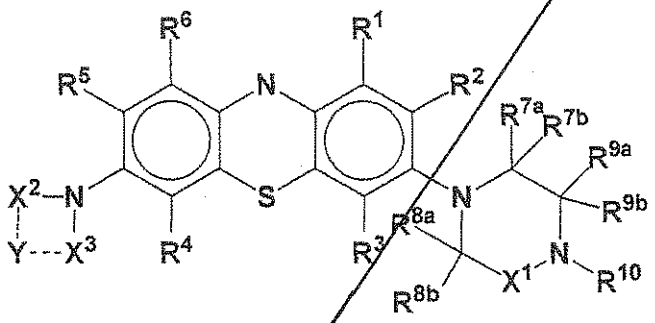
heteroaralkylcarbonyloxy, (cycloalkyl)alkylcarbonyloxy, (cycloheteroalkyl)alkylcarbonyloxy, alkylcarbonyl, arylcarbonyl, heteroarylcarbonyl, cycloalkylcarbonyl, cycloheteroalkylcarbonyl, aralkylcarbonyl, heteroaralkylcarbonyl, (cycloalkyl)alkylcarbonyl, (cycloheteroalkyl)alkylcarbonyl, alkylaminocarbonyl, arylaminocarbonyl, aralkylaminocarbonyl, heteroarylaminocarbonyl, heteroaralkylaminocarbonyl, alkylcarbonylamino, arylcarbonylamino, heteroarylcarbonylamino, cycloalkylcarbonylamino, cycloheteroalkylcarbonylamino, aralkylcarbonylamino, heteroaralkylcarbonylamino, (cycloalkyl)alkylcarbonylamino, (cycloheteroalkyl)alkylcarbonylamino, dialkylamino, arylamino, diarylamino, aralkylamino, diaralkylamino, heteroarylamino, diheteroarylamino, heteroaralkylamino, diheteroaralkylamino, alkylsulfonyl, arylsulfonyl, heteroarylsulfonyl, cycloalkylsulfonyl, aralkylcarbonylthiooxy, carbonylthio, heteroaralkylcarbonylthio, (cycloalkyloxy)carbonylthio, (cycloheteroalkyl)alkylcarbonylthio, alkyloxycarbonyl, aryloxycarbonyl, heteroaryloxycarbonyl, cycloalkyloxycarbonyl, cycloheteroalkyloxycarbonyl, aralyoxycarbonyloxloxycarbonyl, heteroaralkyloxycarbonyl, (cycloalkyl)alkyloxycarbonyl, (cycloheteroalkyl)alkyloxycarbonyl, iminoalkyl, iminocycloalkyl, iminocycloheteroalkyl, iminoaralkyl, iminoheteroaralkyl, (cycloalkyl)iminoalkyl, and (cycloheteroalkyl)iminoalkyl; and

when Y is not present X^2 is R^{15} and X^3 is R^{16}, wherein

R^{15} and R^{16} are selected independently from the group consisting of: hydrogen and optionally substituted alkyl, alkylcarbonyl, arylcarbonyl, heteroarylcarbonyl, cycloalkylcarbonyl, cycloheteroalkylcarbonyl, aralkylcarbonyl, heteroaralkylcarbonyl, (cycloalkyl)alkylcarbonyl, (cycloheteroalkyl)alkylcarbonyl, alkylaminocarbonyl, arylaminocarbonyl, aralkylaminocarbonyl, heteroarylaminocarbonyl, heteroaralkylaminocarbonyl, alkylsulfonyl, arylsulfonyl,

heteroarylsufonyl, cycloalkylsulfonyl, alkyloxycarbonyl, aryloxycarbonyl, heteroaryloxycarbonyl, cycloalkyloxycarbonyl, cycloheteralkyloxycarbonyl, aralkyloxycarbonyloxycarbonyl, heteroaralkyloxycarbonyl, (cycloalkyl)alkyloxycarbonyl, and (cycloheteroalkyl)alkyloxycarbonyl.

3. A compound having the structure:



and its pharmaceutically acceptable salts, hydrates, and coordination compounds, wherein:

R^6 is independently optionally substituted alkyl or halo,

R^1–R^5 and R^7-R^{9b} are selected independently from the group consisting of: hydrogen, halo, cyano, nitro, thio, amino, carboxyl, formyl, and optionally substituted alkyl, R^1–R^{9b} are selected independently from the group consisting of: hydrogen, halo, cyano, nitro, thio, amino, carboxyl, formyl, and optionally substituted alkyl, alkylcarbonyloxy, arylcarbonyloxy, heteroarylcarbonyloxy, cycloalkylcarbonyloxy, cycloheteroalkylcarbonyloxy, aralkylcarbonyloxy, heteroaralkylcarbonyloxy, (cycloalkyl)alkylcarbonyloxy, (cycloheteroalkyl)alkylcarbonyloxy, alkylcarbonyl, arylcarbonyl, heteroarylcarbonyl, cycloalkylcarbonyl, cycloheteroalkylcarbonyl, aralkylcarbonyl, heteroaralkylcarbonyl, (cycloalkyl)alkylcarbonyl, (cycloheteroalkyl)alkylcarbonyl, alkylaminocarbonyl, arylaminocarbonyl, aralkylaminocarbonyl, heteroarylaminocarbonyl, heteroaralkylaminocarbonyl, alkylcarbonylamino, arylcarbonylamino, heteroarylcarbonylamino, cycloalkylcarbonylamino, cycloheteroalkylcarbonylamino, aralkylcarbonylamino, heteroaralkylcarbonylamino, (cycloalkyl)alkylcarbonylamino, (cycloheteroalkyl)alkylcarbonylamino, dialkylamino, arylamino, diarylamino, aralkylamino, diaralkylamino, heteroarylamino, diheteroarylamino,

heteroaralkylamino, diheteroaralkylamino, alkylsulfonyl, arylsulfonyl, heteroarylsuonyl, cycloalkylsulfonyl, aralkylcarbonylthiooxy, carbonylthio, heteroaralkylcarbonylthio, (cycloalkyloxy)carbonylthio, (cycloheteroalkyl)alkylcarbonylthio, alkyloxycarbonyl, aryloxycarbonyl, heteroaryloxycarbonyl, cycloalkyloxycarbonyl, cycloheteroalkyloxycarbonyl, aralkyloxycarbonyloxloxycarbonyl, heteroaralkyloxycarbonyl, (cycloalkyl)alkyloxycarbonyl, (cycloheteroalkyl)alkyloxycarbonyl, iminoalkyl, iminocycloalkyl, iminocycloheteroalkyl, iminoaralkyl, iminoheteroaralkyl, (cycloalkyl)iminoalkyl, and (cycloheteroalkyl)iminoalkyl;

R^{10} is hydrogen or optionally substituted alkyl, alkylcarbonyl, arylcarbonyl, heteroarylcarbonyl, cycloalkylcarbonyl, cycloheteroalkylcarbonyl, aralkylcarbonyl, heteroaralkylcarbonyl, (cycloalkyl)alkylcarbonyl, (cycloheteroalkyl)alkylcarbonyl, alkylaminocarbonyl, arylaminocarbonyl, aralkylaminocarbonyl, heteroarylaminocarbonyl, heteroaralkylaminocarbonyl, alkylsulfonyl, arylsulfonyl, heteroarylsufonyl, cycloalkylsulfonyl, alkyloxycarbonyl, aryloxycarbonyl, heteroaryloxycarbonyl, cycloalkyloxycarbonyl, cycloheteroalkyloxycarbonyl, aralkyloxycarbonyloxycarbonyl, heteroaralkyloxycarbonyl, (cycloalkyl)alkyloxycarbonyl, and (cycloheteroalkyl)alkyloxycarbonyl;

X^1 is $(CR^{11}R^{11'})_m$, wherein m is either 1 or 2 such that each of R^{11} and $R^{11'}$, independently for each value of m, is selected independently from the group consisting of: hydrogen, halo, cyano, nitro, thio, amino, carboxyl, formyl, and optionally substituted alkyl, alkylcarbonyloxy, arylcarbonyloxy, heteroarylcarbonyloxy, cycloalkylcarbonyloxy, cycloheteroalkylcarbonyloxy, aralkylcarbonyloxy, heteroaralkylcarbonyloxy, (cycloalkyl)alkylcarbonyloxy, (cycloheteroalkyl)alkylcarbonyloxy, alkylcarbonyl, arylcarbonyl, heteroarylcarbonyl, cycloalkylcarbonyl, cycloheteroalkylcarbonyl, aralkylcarbonyl, heteroaralkylcarbonyl, (cycloalkyl)alkylcarbonyl, (cycloheteroalkyl)alkylcarbonyl, alkylaminocarbonyl, arylaminocarbonyl, aralkylaminocarbonyl, heteroarylaminocarbonyl, heteroaralkylaminocarbonyl, alkylcarbonylamino, arylcarbonylamino, heteroarylcarbonylamino, cycloalkylcarbonylamino, cycloheteroalkylcarbonylamino, aralkylcarbonylamino, heteroaralkylcarbonylamino, (cycloalkyl)alkylcarbonylamino,

(cycloheteroalkyl)alkylcarbonylamino, dialkylamino, arylamino, diarylamino, aralkylamino, diaralkylamino, heteroarylamino, diheteroarylamino, heteroaralkylamino, diheteroaralkylamino, alkylsulfonyl, arylsulfonyl, heteroarylsulfonyl, cycloalkylsulfonyl, aralkylcarbonylthiooxy, carbonylthio, heteroaralkylcarbonylthio, (cycloalkyloxy)carbonylthio, (cycloheteroalkyl)alkylcarbonylthio, alkyloxycarbonyl, aryloxycarbonyl, heteroaryloxycarbonyl, cycloalkyloxycarbonyl, cycloheteroalkyloxycarbonyl, aralyoxycarbonyloxloxycarbonyl, heteroaralkyloxycarbonyl, (cycloalkyl)alkyloxycarbonyl, (cycloheteroalkyl)alkyloxycarbonyl, iminoalkyl, iminocycloalkyl, iminocycloheteroalkyl, iminoaralkyl, iminoheteroaralkyl, (cycloalkyl)iminoalkyl, and (cycloheteroalkyl)iminoalkyl

Y is optionally present; and

when Y is present, Y is NR^{12}, O, S, SO, or SO^2, or a single or double bond between X^2 and X^3;

R^{12} is hydrogen or optionally substituted alkyl, alkylcarbonyl, arylcarbonyl, heteroarylcarbonyl, cycloalkylcarbonyl, cycloheteroalkylcarbonyl, aralkylcarbonyl, heteroaralkylcarbonyl, (cycloalkyl)alkylcarbonyl, (cycloheteroalkyl)alkylcarbonyl, alkylaminocarbonyl, arylaminocarbonyl, aralkylaminocarbonyl, heteroarylaminocarbonyl, heteroaralkylaminocarbonyl, alkylsulfonyl, arylsulfonyl, heteroarylsufonyl, cycloalkylsulfonyl, alkyloxycarbonyl, aryloxycarbonyl, heteroaryloxycarbonyl, cycloalkyloxycarbonyl, cycloheteroalkyloxycarbonyl, aralkyloxycarbonyloxycarbonyl, heteroaralkyloxycarbonyl, (cycloalkyl)alkyloxycarbonyl, and (cycloheteroalkyl)alkyloxycarbonyl; and

X^2 and X^3 are $(CR^{13}R^{13'})_n$ and $(CR^{14}R^{14'})_o$ respectively, wherein each of m and o independently either 1, 2, or 3 such that the sum m + o is either 3, 4, or 5, and for each of the m and o methylene units of X^2 and X^3, each of R^{13a}–R^{14b} is selected independently from the group consisting of: hydrogen, halo, cyano, nitro, thio, amino, carboxy, formyl, and optionally substituted alkyl, alkylcarbonyloxy, arylcarbonyloxy,

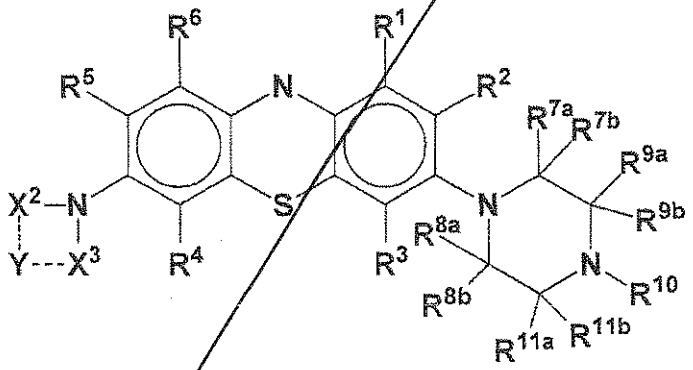
heteroarylcarbonyloxy, cycloalkylcarbonyloxy, cycloheteroalkylcarbonyloxy, aralkylcarbonyloxy, heteroaralkylcarbonyloxy, (cycloalkyl)alkylcarbonyloxy, (cycloheteroalkyl)alkylcarbonyloxy, alkylcarbonyl, arylcarbonyl, heteroarylcarbonyl, cycloalkylcarbonyl, cycloheteroalkylcarbonyl, aralkylcarbonyl, heteroaralkylcarbonyl, (cycloalkyl)alkylcarbonyl, (cycloheteroalkyl)alkylcarbonyl, alkylaminocarbonyl, arylaminocarbonyl, aralkylaminocarbonyl, heteroarylaminocarbonyl, heteroaralkylaminocarbonyl, alkylcarbonylamino, arylcarbonylamino, heteroarylcarbonylamino, cycloalkylcarbonylamino, cycloheteroalkylcarbonylamino, aralkylcarbonylamino, heteroaralkylcarbonylamino, (cycloalkyl)alkylcarbonylamino, (cycloheteroalkyl)alkylcarbonylamino, dialkylamino, arylamino, diarylamino, aralkylamino, diaralkylamino, heteroarylamino, diheteroarylamino, heteroaralkylamino, diheteroaralkylamino, alkylsulfonyl, arylsulfonyl, heteroarylsulfonyl, cycloalkylsulfonyl, aralkylcarbonylthiooxy, carbonylthio, heteroaralkylcarbonylthio, (cycloalkyloxy)carbonylthio, (cycloheteroalkyl)alkylcarbonylthio, alkyloxycarbonyl, aryloxycarbonyl, heteroaryloxycarbonyl, cycloalkyloxycarbonyl, cycloheteroalkyloxycarbonyl, aralyoxycarbonyloxloxycarbonyl, heteroaralkyloxycarbonyl, (cycloalkyl)alkyloxycarbonyl, (cycloheteroalkyl)alkyloxycarbonyl, iminoalkyl, iminocycloalkyl, iminocycloheteroalkyl, iminoaralkyl, iminoheteroaralkyl, (cycloalkyl)iminoalkyl, and (cycloheteroalkyl)iminoalkyl; and

when Y is not present X^2 is R^{15} and X^3 is R^{16}, wherein

R^{15} and R^{16} are selected independently from the group consisting of: hydrogen and optionally substituted alkyl, alkylcarbonyl, arylcarbonyl, heteroarylcarbonyl, cycloalkylcarbonyl, cycloheteroalkylcarbonyl, aralkylcarbonyl, heteroaralkylcarbonyl, (cycloalkyl)alkylcarbonyl, (cycloheteroalkyl)alkylcarbonyl, alkylaminocarbonyl,

arylaminocarbonyl, aralkylaminocarbonyl, heteroarylaminocarbonyl, heteroaralkylaminocarbonyl, alkylsulfonyl, arylsulfonyl, heteroarylsufonyl, cycloalkylsulfonyl, alkyloxycarbonyl, aryloxycarbonyl, heteroaryloxycarbonyl, cycloalkyloxycarbonyl, cycloheter-alkyloxycarbonyl, aralkyloxycarbonyloxycarbonyl, heteroaralkyloxycarbonyl, (cycloalkyl)alkyloxycarbonyl, and (cycloheteroalkyl)alkyloxycarbonyl.

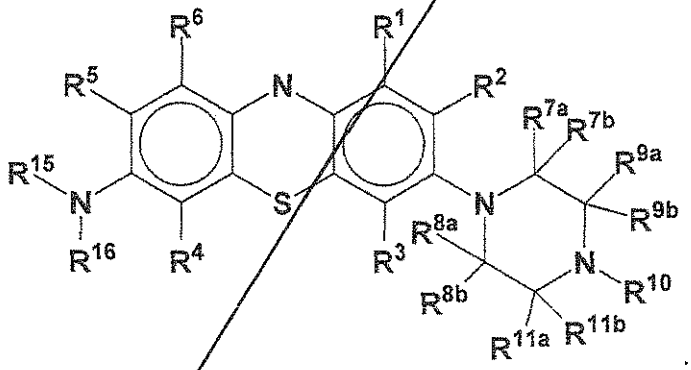
4. A compound of any one of claims **1** to **3**, wherein m is 1, such that X^1 is $(CR^{11}R^{11'})$, thereby defining X^1 as $(CR^{11a}R^{11b})$, said compound having the structure:



wherein R^{11a} and R^{11b} are selected independently from the group consisting of: hydrogen, halo, cyano, nitro, thio, amino, carboxy, formyl, and optionally substituted alkyl, alkylcarbonyloxy, arylcarbonyloxy, heteroarylcarbonyloxy, cycloalkylcarbonyloxy, cycloheteroalkylcarbonyloxy, aralkylcarbonyloxy, heteroaralkylcarbonyloxy, (cycloalkyl)alkylcarbonyloxy, (cycloheteroalkyl)alkylcarbonyloxy, alkylcarbonyl, arylcarbonyl, heteroarylcarbonyl, cycloalkylcarbonyl, cycloheteroalkylcarbonyl, aralkylcarbonyl, heteroaralkylcarbonyl, (cycloalkyl)alkylcarbonyl, (cycloheteroalkyl)alkylcarbonyl, alkylaminocarbonyl, arylaminocarbonyl, aralkylaminocarbonyl, heteroarylaminocarbonyl, heteroaralkylaminocarbonyl, alkylcarbonylamino, arylcarbonylamino, heteroarylcarbonylamino, cycloalkylcarbonylamino, cycloheteroalkylcarbonylamino, aralkylcarbonylamino, heteroaralkylcarbonylamino, (cycloalkyl)alkylcarbonylamino, (cycloheteroalkyl)alkylcarbonylamino, dialkylamino, arylamino, diarylamino, aralkylamino, diaralkylamino, heteroarylamino, diheteroarylamino, heteroaralkylamino,

diheteroaralkylamino, alkylsulfonyl, arylsulfonyl, heteroarylsulfonyl, cycloalkylsulfonyl, aralkylcarbonylthiooxy, carbonylthio, heteroaralkylcarbonylthio, (cycloalkyloxy)carbonylthio, (cycloheteroalkyl)alkylcarbonylthio, alkyloxycarbonyl, aryloxycarbonyl, heteroaryloxycarbonyl, cycloalkyloxycarbonyl, cycloheteroalkyloxycarbonyl, aralyoxycarbonyloxloxycarbonyl, heteroaralkyloxycarbonyl, (cycloalkyl)alkyloxycarbonyl, (cycloheteroalkyl)alkyloxycarbonyl, iminoalkyl, iminocycloalkyl, iminocycloheteroalkyl, iminoaralkyl, iminoheteroaralkyl, (cycloalkyl)iminoalkyl, and (cycloheteroalkyl)iminoalkyl.

5. A compound of claim 4, wherein Y is not present, said compound having the structure:



6. A compound of claim 5, wherein each of R^{15} and R^{16} is hydrogen.

7. A compound of claim 6, wherein each of R^2–R^5, R^{7a}–R^{9b}, R^{11a}, and R^{11b} is hydrogen, and R^{10} is optionally substituted alkyl or alkylsulfonyl.

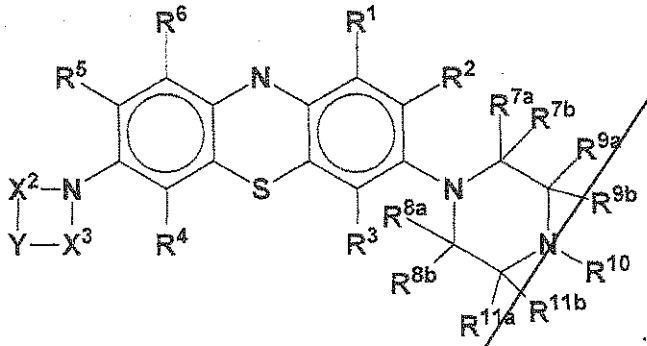
8. A compound of claim 5, wherein each of R^{15} and R^{16} independently is alkyl or alkyloxyalkyl.

9. A compound of claim 8, wherein each of R^{15} and R^{16} independently is alkyl.

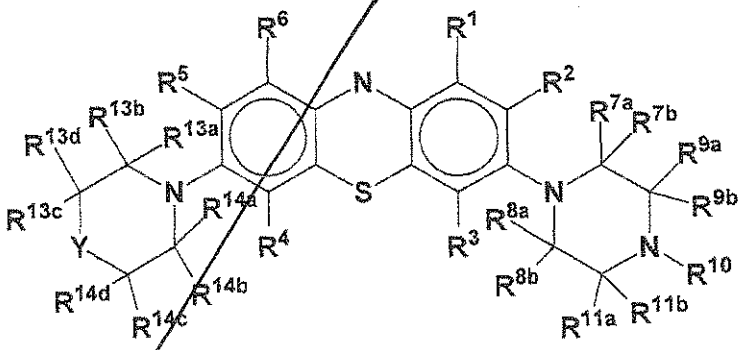
10. A compound of claim 9, wherein each of R^{15} and R^{16} independently is methyl or ethyl.

11. A compound of claim 10, wherein each of R^2–R^5, R^{7a}–R^{9b}, R^{11a}, and R^{11b} is hydrogen, and R^{10} is hydrogen, or optionally substituted alkyl, alkyloxycarbonyl, alkylsulfonyl, cycloalkylsulfonyl, and alkylaminosulfonyl.

12. A compound of claim 4, wherein Y is present, said compound having the structure:



13. A compound of claim 5, wherein each of n and o is 2, such that X^1 and X^2 have the form $(CR^{13}R^{13'})_2$ and $(CR^{14}R^{14'})_2$ respectively, defining thereby X^1 as $(CR^{13a}R^{13b})$ $(CR^{13c}R^{13d})$ and X^2 as $(CR^{14a}R^{14b})$ $(CR^{14c}R^{14d})$, said compound having the structure:



wherein R^{13a}–R^{14d} are selected independently from the group consisting of: hydrogen, halo, cyano, nitro, thio, amino, carboxy, formyl, and optionally substituted alkyl, alkylcarbonyloxy, arylcarbonyloxy, heteroarylcarbonyloxy, cycloalkylcarbonyloxy, cycloheteroalkylcarbonyloxy, aralkylcarbonyloxy, heteroaralkylcarbonyloxy, (cycloalkyl)alkylcarbonyloxy, (cycloheteroalkyl)alkylcarbonyloxy, alkylcarbonyl, arylcarbonyl, heteroarylcarbonyl, cycloalkylcarbonyl, cycloheteroalkylcarbonyl, aralkylcarbonyl, heteroaralkylcarbonyl, (cycloalkyl)alkylcarbonyl, (cycloheteroalkyl)alkylcarbonyl, alkylaminocarbonyl, arylaminocarbonyl, aralkylaminocarbonyl, heteroarylaminocarbonyl, heteroaralkylaminocarbonyl, alkylcarbonylamino, arylcarbonylamino, heteroarylcarbonylamino, cycloalkylcarbonylamino, cycloheteroalkylcarbonylamino, aralkylcarbonylamino, heteroaralkylcarbonylamino, (cycloalkyl)alkylcarbonylamino,

(cycloheteroalkyl)alkylcarbonylamino, dialkylamino, arylamino, diarylamino, aralkylamino, diaralkylamino, heteroarylamino, diheteroarylamino, heteroaralkylamino, diheteroaralkylamino, alkylsulfonyl, arylsulfonyl, heteroarylsulfonyl, cycloalkylsulfonyl, aralkylcarbonylthiooxy, carbonylthio, heteroaralkylcarbonylthio, (cycloalkyloxy)carbonylthio, (cycloheteroalkyl)alkylcarbonylthio, alkyloxycarbonyl, aryloxycarbonyl, heteroaryloxycarbonyl, cycloalkyloxycarbonyl, cycloheteroalkyloxycarbonyl, aralyoxycarbonyloxloxycarbonyl, heteroaralkyloxycarbonyl, (cycloalkyl)alkyloxycarbonyl, (cycloheteroalkyl)alkyloxycarbonyl, iminoalkyl, iminocycloalkyl, iminocycloheteroalkyl, iminoaralkyl, iminoheteroaralkyl, (cycloalkyl)iminoalkyl, and (cycloheteroalkyl)iminoalkyl.

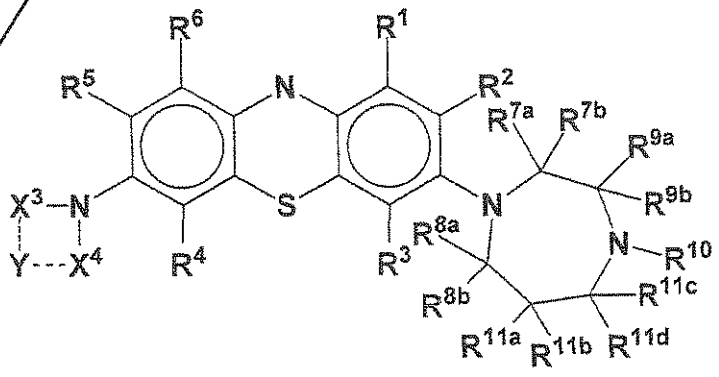
14. A compound of claim 13, wherein each of R^2–R^5, R^{7a}–R^{9b}, R^{11a}, R^{11b}, and R^{13a}–R^{14d} is hydrogen.

15. A compound of claim 14, wherein Y is NR^{12} or O.

16. A compound of claim 15, wherein Y is NR^{12}, and R^{10} and R^{12} are selected independently from the group consisting of: hydrogen, or optionally substituted alkyl, alkyloxycarbonyl, alkylsulfonyl, cycloalkylsulfonyl, and alkylaminosulfonyl.

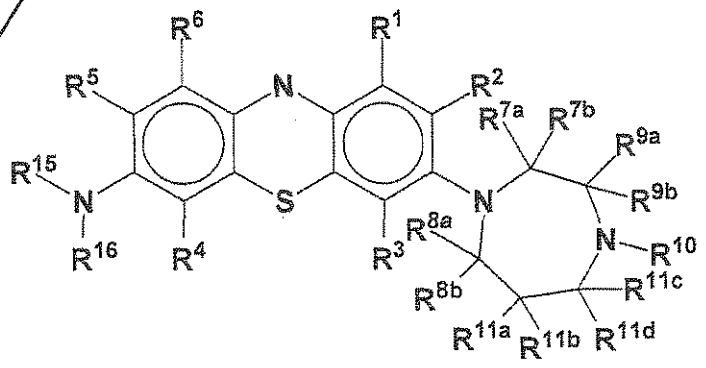
17. A compound of claim 15, wherein Y is O.

18. A compound of any one of claims 1 to 3, wherein *m* is 2, such that X^1 is $(CR^{11}R^{11'})_2$, thereby defining X^1 as $(CR^{11a}R^{11b})(CR^{11c}R^{11d})$, said compound having the structure:



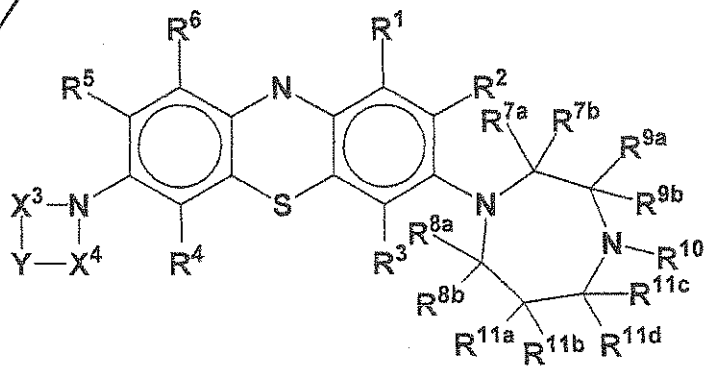
wherein R^{11a}–R^{11d} are selected independently from the group consisting of: hydrogen, halo, cyano, nitro, thio, amino, carboxy, formyl, and optionally substituted alkyl, alkylcarbonyloxy, arylcarbonyloxy, heteroarylcarbonyloxy, cycloalkylcarbonyloxy, cycloheteroalkylcarbonyloxy, aralkylcarbonyloxy, heteroaralkylcarbonyloxy, (cycloalkyl)alkylcarbonyloxy, (cycloheteroalkyl)alkylcarbonyloxy, alkylcarbonyl, arylcarbonyl, heteroarylcarbonyl, cycloalkylcarbonyl, cycloheteroalkylcarbonyl, aralkylcarbonyl, heteroaralkylcarbonyl, (cycloalkyl)alkylcarbonyl, (cycloheteroalkyl)alkylcarbonyl, alkylaminocarbonyl, arylaminocarbonyl, aralkylaminocarbonyl, heteroarylaminocarbonyl, heteroaralkylaminocarbonyl, alkylcarbonylamino, arylcarbonylamino, heteroarylcarbonylamino, cycloalkylcarbonylamino, cycloheteroalkylcarbonylamino, aralkylcarbonylamino, heteroaralkylcarbonylamino, (cycloalkyl)alkylcarbonylamino, (cycloheteroalkyl)alkylcarbonylamino, dialkylamino, arylamino, diarylamino, aralkylamino, diaralkylamino, heteroarylamino, diheteroarylamino, heteroaralkylamino, diheteroaralkylamino, alkylsulfonyl, arylsulfonyl, heteroarylsulfonyl, cycloalkylsulfonyl, aralkylcarbonylthiooxy, carbonylthio, heteroaralkylcarbonylthio, (cycloalkyloxy)carbonylthio, (cycloheteroalkyl)alkylcarbonylthio, alkyloxycarbonyl, aryloxycarbonyl, heteroaryloxycarbonyl, cycloalkyloxycarbonyl, cycloheteroalkyloxycarbonyl, aralyoxycarbonyloxloxycarbonyl, heteroaralkyloxycarbonyl, (cycloalkyl)alkyloxycarbonyl, (cycloheteroalkyl)alkyloxycarbonyl, iminoalkyl, iminocycloalkyl, iminocycloheteroalkyl, iminoaralkyl, iminoheteroaralkyl, (cycloalkyl)iminoalkyl, and (cycloheteroalkyl)iminoalkyl.

19. A compound of claim 18, wherein Y is not present, said compound having the structure:



wherein R^{11a}–R^{11d} are selected independently from the group consisting of: hydrogen, halo, cyano, nitro, thio, amino, carboxy, formyl, and optionally substituted alkyl, alkylcarbonyloxy, arylcarbonyloxy, heteroarylcarbonyloxy, cycloalkylcarbonyloxy, cycloheteroalkylcarbonyloxy, aralkylcarbonyloxy, heteroaralkylcarbonyloxy, (cycloalkyl)alkylcarbonyloxy, (cycloheteroalkyl)alkylcarbonyloxy, alkylcarbonyl, arylcarbonyl, heteroarylcarbonyl, cycloalkylcarbonyl, cycloheteroalkylcarbonyl, aralkylcarbonyl, heteroaralkylcarbonyl, (cycloalkyl)alkylcarbonyl, (cycloheteroalkyl)alkylcarbonyl, alkylaminocarbonyl, arylaminocarbonyl, aralkylaminocarbonyl, heteroarylaminocarbonyl, heteroaralkylaminocarbonyl, alkylcarbonylamino, arylcarbonylamino, heteroarylcarbonylamino, cycloalkylcarbonylamino, cycloheteroalkylcarbonylamino, aralkylcarbonylamino, heteroaralkylcarbonylamino, (cycloalkyl)alkylcarbonylamino, (cycloheteroalkyl)alkylcarbonylamino, dialkylamino, arylamino, diarylamino, aralkylamino, diaralkylamino, heteroarylamino, diheteroarylamino, heteroaralkylamino, diheteroaralkylamino, alkylsulfonyl, arylsulfonyl, heteroarylsulfonyl, cycloalkylsulfonyl, aralkylcarbonylthiooxy, carbonylthio, heteroaralkylcarbonylthio, (cycloalkyloxy)carbonylthio, (cycloheteroalkyl)alkylcarbonylthio, alkyloxycarbonyl, aryloxycarbonyl, heteroaryloxycarbonyl, cycloalkyloxycarbonyl, cycloheteroalkyloxycarbonyl, aralyoxycarbonyloxloxycarbonyl, heteroaralkyloxycarbonyl, (cycloalkyl)alkyloxycarbonyl, (cycloheteroalkyl)alkyloxycarbonyl, iminoalkyl, iminocycloalkyl, iminocycloheteroalkyl, iminoaralkyl, iminoheteroaralkyl, (cycloalkyl)iminoalkyl, and (cycloheteroalkyl)iminoalkyl.

20. A compound of claim 18, wherein Y is present, said compound having the structure:



wherein R^{11a}–R^{11d} are selected independently from the group consisting of: hydrogen, halo, cyano, nitro, thio, amino, carboxy, formyl, and optionally substituted alkyl, alkylcarbonyloxy, arylcarbonyloxy, heteroarylcarbonyloxy, cycloalkylcarbonyloxy, cycloheteroalkylcarbonyloxy, aralkylcarbonyloxy, heteroaralkylcarbonyloxy, (cycloalkyl)alkylcarbonyloxy, (cycloheteroalkyl)alkylcarbonyloxy, alkylcarbonyl, arylcarbonyl, heteroarylcarbonyl, cycloalkylcarbonyl, cycloheteroalkylcarbonyl, aralkylcarbonyl, heteroaralkylcarbonyl, (cycloalkyl)alkylcarbonyl, (cycloheteroalkyl)alkylcarbonyl, alkylaminocarbonyl, arylaminocarbonyl, aralkylaminocarbonyl, heteroarylaminocarbonyl, heteroaralkylaminocarbonyl, alkylcarbonylamino, arylcarbonylamino, heteroarylcarbonylamino, cycloalkylcarbonylamino, cycloheteroalkylcarbonylamino, aralkylcarbonylamino, heteroaralkylcarbonylamino, (cycloalkyl)alkylcarbonylamino, (cycloheteroalkyl)alkylcarbonylamino, dialkylamino, arylamino, diarylamino, aralkylamino, diaralkylamino, heteroarylamino, diheteroarylamino, heteroaralkylamino, diheteroaralkylamino, alkylsulfonyl, arylsulfonyl, heteroarylsulfonyl, cycloalkylsulfonyl, aralkylcarbonylthiooxy, carbonylthio, heteroaralkylcarbonylthio, (cycloalkyloxy)carbonylthio, (cycloheteroalkyl)alkylcarbonylthio, alkyloxycarbonyl, aryloxycarbonyl, heteroaryloxycarbonyl, cycloalkyloxycarbonyl, cycloheteroalkyloxycarbonyl, aralyoxycarbonyloxloxycarbonyl, heteroaralkyloxycarbonyl, (cycloalkyl)alkyloxycarbonyl, (cycloheteroalkyl)alkyloxycarbonyl, iminoalkyl, iminocycloalkyl, iminocycloheteroalkyl, iminoaralkyl, iminoheteroaralkyl, (cycloalkyl)iminoalkyl, and (cycloheteroalkyl)iminoalkyl.

21. Use of a therapeutically effective amount of a compound according to any one of claims 1 to 3 in the manufacture of a medicament for treating a viral disease in a mammal afflicted with such disease.

22. The use of claim 21, wherein said viral disease is an etiological component of a respiratory syndrome selected from the group consisting of: bronchiolitis, the common cold, croup, influenza, and pneumonia.

23. The use of claim 21, wherein said viral disease is flu.

24. The use of claim 21, wherein said viral disease is HIV.

25. The compound of any one of claims **1** to **20** for use in therapy.

26. A compound of claim **1**, which is a member selected from
3-amino-7-(4-isopropylpiperazin-1-yl)-1,9-dimethylphenothiazin-5-ium,
3-amino-1,9-dimethyl-7-(4-(methylsulfonyl)piperazin-1-yl)phenothiazin-5-ium,
3-amino-1,9-dimethyl-7-(4-(trifluoromethylsulfonyl)piperazin-1-yl)phenothiazin-5-ium, and
3-amino-7-(4-(isopropylsulfonyl)piperazin-1-yl)-1,9-dimethylphenothiazin-5-ium.

27. A compound of claim **1**, which is a member selected from
3-(dimethylamino)-1,9-dimethyl-7-(4-methylpiperazin-1-yl)phenothiazin-5-ium,
3-(4-(tert-butoxycarbonyl)piperazin-1-yl)-7-(dimethylamino)-1,9-dimethylphenothiazin-5-ium,
3-(dimethylamino)-1,9-dimethyl-7-(piperazin-1-yl)phenothiazin-5-ium,
3,7-bis(4-(tert-butoxycarbonyl)piperazin-1-yl)-1,9-dimethylphenothiazin-5-ium,
3-(butyl(methyl)amino)-7-(4-(2-methoxyethyl)piperazin-1-yl)-1,9-dimethylphenothiazin-5-ium,
3-(4-(cyclopropylsulfonyl)piperazin-1-yl)-7-(dimethylamino)-1,9-dimethylphenothiazin-5-ium,
3-(dimethylamino)-7-(4-(isopropylsulfonyl)piperazin-1-yl)-1,9-dimethylphenothiazin-5-ium,
3-(dimethylamino)-1,9-dimethyl-7-(4-(2,2,2-trifluoroethylsulfonyl)piperazin-1-yl)phenothiazin-5-ium,
4-carboxy-3-(dimethylamino)-1,9-dimethyl-7-(4-methylpiperazin-1-yl)phenothiazin-5-ium,
4-carboxy-7-(dimethylamino)-1,9-dimethyl-3-(4-methylpiperazin-1-yl)phenothiazin-5-ium,
3-(4-(cyclopropylsulfonyl)piperazin-1-yl)-7-(dimethylamino)-1-isopropyl-9-methylphenothiazin-5-ium,
3-(diethylamino)-1,9-dimethyl-7-(4-(methylsulfonyl)piperazin-1-yl)phenothiazin-5-ium,
3-(diethylamino)-1,9-dimethyl-7-(piperazin-1-yl)phenothiazin-5-ium,
3-(diethylamino)-7-(4-isopropylpiperazin-1-yl)-1,9-dimethylphenothiazin-5-ium,
3-(diethylamino)-7-(4-isopropylpiperazin-1-yl)-1,9-dimethylphenothiazin-5-ium,
1,9-diethyl-3-dimethylamino-7-[4-isopropylpiperazinyl]-phenothiazinium,
3-(butyl(methyl)amino)-1,9-dimethyl-7-(4-methylpiperazin-1-yl)phenothiazin-5-ium,
3-(dimethylamino)-1,9-diethyl-7-((4-trifluoromethylsulfonyl)piperazin-1-yl)phenothiazin-5-ium,

3-(4-(cyclopentylsulfonyl)piperazin-1-yl)-7-(dimethylamino)-1,9-diethylphenothiazin-5-ium,
3-(dimethylamino)-9-ethyl-1-isopropyl-7-(4-isopropylpiperazin-1-yl)phenothiazin-5-ium,
3-(butyl(methyl)amino)-7-((4-cyclopropylsulfonyl)piperazin-1-yl)-1,9-diethylphenothiazin-5-ium,
3-(4-cyclopentylpiperazin-1-yl)-7-(dimethylamino)-1,9-diethylphenothiazin-5-ium,
3-(dimethylamino)-1,9-diethyl-7-(4-(2-methoxyethyl)piperazin-1-yl)phenothiazin-5-ium,
3-(4-(cyclopropylsulfonyl)piperazin-1-yl)-7-(dimethylamino)-1-ethyl-9-isopropylphenothiazin-5-ium,
3-(dimethylamino)-9-ethyl-1-isopropyl-7-((4-trifluoromethylsulfonyl)piperazin-1-yl)phenothiazin-5-ium,
3-(dimethylamino)-7-(4-(N,N-dimethylsulfamoyl)piperazin-1-yl)-1,9-diethylphenothiazin-5-ium,
3-(4-(cyclopropylsulfonyl)piperazin-1-yl)-7-(dimethylamino)-1,9-diethylphenothiazin-5-ium,
3-((4-tert-butylcarbamoyl)piperazin-1-yl)-7-(dimethylamino)-1,9-diethylphenothiazin-5-ium,
3-(4-butylpiperazin-1-yl)-7-(dimethylamino)-1,9-diethylphenothiazin-5-ium,
3-(4-acetylpiperazin-1-yl)-7-(methyl(n-butyl)amino)-1,9-dimethylphenothiazin-5-ium,
3-(4-boc-piperazin-1-yl)-7-(methyl(n-butyl)amino)-1,9-dimethylphenothiazin-5-ium,
3-(piperazin-1-yl)-7-(methyl(n-butyl)amino)-1,9-dimethylphenothiazin-5-ium,
3-(dimethylamino)-1-ethyl-9-methyl-7-(4-methylpiperazin-1-yl)-phenothiazin-5-ium,
3-(dimethylamino)-1-ethyl-9-methyl-7-(4-(trifluoromethylsulfonyl)piperazin-1-yl)phenothiazin-5-ium,
3-(4-(cyclopropylsulfonyl)piperazin-1-yl)-7-(dimethylamino)-9-ethyl-1-methyl-phenothiazin-5-ium, and
3-(bis(2-methoxyethyl)amino)-1-ethyl-9-methyl-7-(4-methylpiperazin-1-yl)phenothiazin-5-ium.

28. A compound of claim 1, which is a member selected from
1,9-dimethyl-3,7-bis(4-methylpiperazin-1-yl)phenothiazin-5-ium,
3,7-bis(4-(tert-butoxycarbonyl)piperazin-1-yl)-1,9-dimethylphenothiazin-5-ium,
3,7-bis[4-(2-methoxyethyl)piperazin-1-yl]-1,9-dimethyl-phenothiazin-5-ium,
1,9-dimethyl-3,7-bis(4-sulfamoylpiperazin-1-yl)phenothiazin-5-ium,
3,7-bis(4-isopropylpiperazin-1-yl)-1,9-dimethylphenothiazin-5-ium,
3, 7 bis(4(cyclopropanecarbonyl)piperazin-1-yl)-1,9-diethylphenothiazin-5-ium,
3,7-bis(4-(cyclopropylsulfonyl)piperazin-1-yl)-1,9-diethyl-phenothiazin-5-ium,

3,7-di(4-acetylpiperazin-1-yl)-1,9-dimethylphenothiazin-5-ium, and
3,7-(di(4-methylpiperazin-1-yl))-1-ethyl-9-methylphenothiazin-5-ium.

29. A compound of claim 1, which is a member selected from
1,9-dimethyl-3-morpholino-7-(4-sulfamoylpiperazin-1-yl)phenothiazin-5-ium,
3-((2R,6S)-2,6-dimethylmorpholino)-1,9-dimethyl-7-(4-sulfamoylpiperazin-1-yl)phenothiazin-5-ium,
3-((2R,6R)-2,6-dimethylmorpholino)-1,9-dimethyl-7-(4-sulfamoylpiperazin-1-yl)phenothiazin-5-ium,
1,9-diethyl-3-morpholino-7-(4-sulfamoylpiperazin-1-yl)phenothiazin-5-ium,
3-(4-(tert-butoxycarbonyl)-3-(methoxycarbonyl)-piperazin-1-yl)-1,9-diethyl-7-morpholinophenothiazin-5-ium,
3-(4-boc-piperazin-1-yl)-1-ethyl-9-methyl-7-morpholino-phenothiazin-5-ium, and
1-ethyl-9-methyl-7-morpholino-3-(piperazin-1-yl)-phenothiazin-5-ium.

30. A compound of claim 1, which is a member selected from
3-(azetidin-1-yl)-7-(4-(isopropylsulfonyl)piperazin-1-yl)-1,9-dimethylphenothiazin-5-ium,
1,9-dimethyl-3-(pyrrolidin-1-yl)-7-(4-(2,2,2-trifluoroethylsulfonyl)piperazin-1-yl)phenothiazin-5-ium, and
3-(4-(cyclopropylsulfonyl)piperazin-1-yl)-9-ethyl-1-methyl-7-(pyrrolidin-1-yl)-phenothiazin-5-ium.

31. A compound of claim 2 or 3, which is a member selected from
7-(4-(tert-butoxycarbonyl)piperazin-1-yl)-1-chloro-3-(diethylamino)phenothiazin-5-ium,
1-chloro-3-(diethylamino)-7-(piperazin-1-yl)phenothiazin-5-ium,
7-(4-(tert-butoxycarbonyl)piperazin-1-yl)-3-(diethylamino)-1-ethylphenothiazin-5-ium,
3-(diethylamino)-1-ethyl-7-(piperazin-1-yl)phenothiazin-5-ium,
7-(diethylamino)-1-ethyl-3-(piperazin-1-yl)phenothiazin-5-ium,
3-(bis(2-methoxyethyl)amino)-7-(4-(tertbutoxycarbonyl)piperazin-1-yl)-1-ethylphenothiazin-5-ium.

7-(bis(2-methoxyethyl)-amino)-3-(4-(tert-butoxycarbonyl)piperazin-1-yl)-1-ethylphenothiazin-5-ium,
3-(bis(2-methoxyethyl)amino)-1,9-dichloro-7-(piperazin-1-yl)phenothiazin-5-ium,
7-(dimethylamino)-1-trifluoromethyl-3-(4-methylpiperazin-1-yl)-phenothiazin-5-ium,
7-(dimethylamino)-1-trifluoromethyl-3-(4-boc-piperazin-1-yl)-phenothiazin-5-ium,
7-(dimethylamino)-1-trifluoromethyl-3-(piperazin-1-yl)phenothiazin-5-ium, and
7-(bis(2-methoxyethyl)amino)-3-(piperazin-1-yl)-1-(trifluoromethyl)phenothiazin-5-ium.

32. A compound of claim **2** or **3**, which is a member selected from
1,9-dichloro-3,7-di(piperazin-1-yl)phenothiazin-5-ium,
1-trifluoromethyl-3,7-di(4-methylpiperazin-1-yl)phenothiazin-5-ium,
3,7-(di(4-Boc-piperazin-1-yl))-1-trifluoromethylphenothiazin-5-ium,
3,7-dipiperazinyl-1-trifluoromethylphenothiazin-5-ium,
3,7-di(4-methylpiperazin-1-yl)-1-n-butylphenothiazin-5-ium,
3,7-di(4-methylpiperazin-1-yl)-1-methylphenothiazin-5-ium,
1-(tert-butyl)-3,7-bis(4-methylpiperazin-1-yl)phenothiazin-5-ium, and
3,7-di(4-methylpiperazin-1-yl)-1-isopropylphenothiazin-5-ium.

33. A compound of claim **2** or **3**, which is 1,9-dichloro-3-(piperazin-1-yl)-7-(pyrrolidin-1-yl)phenothiazin-5-ium.

34. A compound of claim **1**, which is a member selected from
3-(4-(cyclopropylsulfonyl)-1,4-diazepan-1-yl)-7-(dimethylamino)-1,9-diethylphenothiazin-5-ium,
3-(dimethylamino)-1,9-diethyl-7-((methylsulfonyl)-1,4-diazepan-1-yl)phenothiazin-5-ium,
3-(dimethylamino)-1,9-diethyl-7-(4-(ethylsulfonyl)-1,4-diazepan-1-yl)phenothiazin-5-ium,
3-(4-(tert-butylcarbamoyl)-1,4-diazepan-1-yl)-7-(dimethylamino)-1,9-diethylphenothiazin-5-ium,
3-(dimethylamino)-1,9-diethyl-7-(4-sulfamoyl-1,4-diazepan-1-yl)phenothiazin-5-ium,
3-(dimethylamino)-1,9-diethyl-7 -(4-(isopropylsulfonyl)-1,4-diazepan-1-yl)phenothiazin-5-ium,
3-(dimethylamino)-1,9-diethyl-7-(4-(methylbut-2-enyl)-1,4-diazepan-1-yl)phenothiazin-5-ium,

3-(4-(tert-butoxycarbonyl)-1,4-diazepan-1-yl)-7-(dimethylamino)-1,9-diethylphenothiazin-5-ium, and
3-(1,4-diazepan-1-yl)-7-(dimethylamino)-1,9-diethylphenothiazin-5-ium.

35. A compound of claim 1, which is a member selected from
3,7-di(1,4-diazepan-1-yl)-1,9-dimethylphenothiazin-5-ium,
3-(1,4-diazepan-1-yl)-1,9-diethyl-7-(4-ureidopiperidin-1-yl)phenothiazin-5-ium,
3-(4-(tert-butoxycarbonyl)-1,4-diazepan-1-yl)-1,9-diethyl-7-(2-methylpyrrolidin-1-yl)phenothiazin-5-ium,
3-(1,4-diazepan-1-yl)-1,9-diethyl-7-(2-methylpyrrolidin-1-yl)phenothiazin-5-ium,
3,7-bis(4-(tert-butoxycarbonyl)-1,4-diazepan-1-yl)-1,9-diethylphenothiazin-5-ium,
1-ethyl-9-methyl-7-((4-methylsulfonyl)-1,4-diazepan-1-yl)-3-(pyrrolidin-1-yl)-phenothiazin-5-ium,
3,7-bis(4-boc-1,4-diazepan-1-yl)-1-ethyl-9-methyl-phenothiazin-5-ium,
3-(4-boc-1,4-diazepan-1-yl)-1-ethyl-9-methyl-7-(pyrrolidin-1-yl)-phenothiazin-5-ium,
3,7-di(1,4-diazepan-1-yl)-1-ethyl-9-methyl-phenothiazin-5-ium, and
3-(1,4-diazepan-1-yl)-1-ethyl-9-methyl-7-(pyrrolidin-1-yl)-phenothiazin-5-ium.

36. A compound of claim 2 or 3, which is 3,7-di(1,4-diazepan-1-yl)-1-trifluoromethylphenothiazin-5-ium.

37. A compound of claim 1, which is 3-(1,4-diazepan-1-yl)-7-(dimethylamino)-1,9-diethylphenothiazin-5-ium.

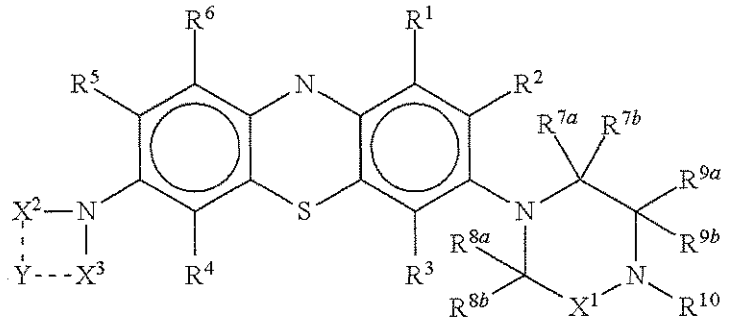
38. A compound of claim 1, which is 3-(4-(cyclopropylsulfonyl)piperazin-1-yl)-7-(dimethylamino)-1,9-diethylphenothiazin-5-ium.

39. A compound of claim 2 or 3, which is 3-(diethylamino)-1-ethyl-7-(piperazin-1-yl)phenothiazin-5-ium.

40. A compound of claim 2 or 3, which is 3,7-di(4-methylpiperazin-1-yl)-1-t-butylphenothiazin-5-ium.

CLAIMS

1. A compound having the structure:



and its pharmaceutically acceptable salts, hydrates, and coordination compounds, wherein:

R^6 is halo or optionally substituted alkyl,

R^1-R^5 and R^{7a}-R^{9b} are selected independently from the group consisting of: hydrogen, halo, cyano, nitro, thio, amino, carboxyl, formyl, and optionally substituted alkyl, alkylcarbonyloxy, arylcarbonyloxy, heteroarylcarbonyloxy, cycloalkylcarbonyloxy, cycloheteroalkylcarbonyloxy, aralkylcarbonyloxy, heteroaralkylcarbonyloxy, (cycloalkyl)alkylcarbonyloxy, (cycloheteroalkyl)alkylcarbonyloxy, alkylcarbonyl, arylcarbonyl, heteroarylcarbonyl, cycloalkylcarbonyl, cycloheteroalkylcarbonyl, aralkylcarbonyl, heteroaralkylcarbonyl, (cycloalkyl)alkylcarbonyl, (cycloheteroalkyl)alkylcarbonyl, alkylaminocarbonyl, arylaminocarbonyl, aralkylaminocarbonyl, heteroarylaminocarbonyl, heteroaralkylaminocarbonyl, alkylcarbonylamino, arylcarbonylamino, heteroarylcarbonylamino, cycloalkylcarbonylamino, cycloheteroalkylcarbonylamino, aralkylcarbonylamino, heteroaralkylcarbonylamino, (cycloalkyl)alkylcarbonylamino, (cycloheteroalkyl)alkylcarbonylamino, dialkylamino, arylamino, diarylamino, aralkylamino, diaralkylamino, heteroarylamino, diheteroarylamino, heteroaralkylamino, diheteroaralkylamino, alkylsulfonyl, arylsulfonyl, heteroarylsuonyl, cycloalkylsulfonyl, aralkylcarbonylthiooxy, carbonylthio, heteroaralkylcarbonylthio, (cycloalkyloxy)carbonylthio, (cycloheteroalkyl)alkylcarbonylthio, alkyloxycarbonyl, aryloxycarbonyl, heteroaryloxycarbonyl, cycloalkyloxycarbonyl, cycloheteroalkyloxycarbonyl, aralkyloxycarbonyloxloxycarbonyl, heteroaralkyloxycarbonyl, (cycloalkyl)alkyloxycarbonyl, (cycloheteroalkyl)alkyloxycarbonyl, iminoalkyl, iminocycloalkyl, iminocycloheteroalkyl, iminoaralkyl, iminoheteroaralkyl, (cycloalkyl)iminoalkyl, and (cycloheteroalkyl)iminoalkyl;

R^{10} is hydrogen or optionally substituted alkyl, alkylcarbonyl, arylcarbonyl, heteroarylcarbonyl, cycloalkylcarbonyl, cycloheteroalkylcarbonyl, aralkylcarbonyl, heteroaralkylcarbonyl, (cycloalkyl)alkylcarbonyl, (cycloheteroalkyl)alkylcarbonyl,

alkylaminocarbonyl, arylaminocarbonyl, aralkylaminocarbonyl, heteroarylaminocarbonyl, heteroaralkylaminocarbonyl, alkylsulfonyl, arylsulfonyl, heteroarylsufonyl, cycloalkylsulfonyl, alkyloxycarbonyl, aryloxycarbonyl, heteroaryloxycarbonyl, cycloalkyloxycarbonyl, cycloheteroalkyloxycarbonyl, aralkyloxycarbonyloxycarbonyl, heteroaralkyloxycarbonyl, (cycloalkyl)alkyloxycarbonyl, and (cycloheteroalkyl)alkyloxycarbonyl;

X^1 is $(CR^{11}R^{11'})_m$, wherein m is either 1 or 2 such that each of R^{11} and $R^{11'}$, independently for each value of m, is selected independently from the group consisting of: hydrogen, halo, cyano, nitro, thio, amino, carboxyl, formyl, and optionally substituted alkyl, alkylcarbonyloxy, arylcarbonyloxy, heteroarylcarbonyloxy, cycloalkylcarbonyloxy, cycloheteroalkylcarbonyloxy, aralkylcarbonyloxy, heteroaralkylcarbonyloxy, (cycloalkyl)alkylcarbonyloxy, (cycloheteroalkyl)alkylcarbonyloxy, alkylcarbonyl, arylcarbonyl, heteroarylcarbonyl, cycloalkylcarbonyl, cycloheteroalkylcarbonyl, aralkylcarbonyl, heteroaralkylcarbonyl, (cycloalkyl)alkylcarbonyl, (cycloheteroalkyl)alkylcarbonyl, alkylaminocarbonyl, arylaminocarbonyl, aralkylaminocarbonyl, heteroarylaminocarbonyl, heteroaralkylaminocarbonyl, alkylcarbonylamino, arylcarbonylamino, heteroarylcarbonylamino, cycloalkylcarbonylamino, cycloheteroalkylcarbonylamino, aralkylcarbonylamino, heteroaralkylcarbonylamino, (cycloalkyl)alkylcarbonylamino, (cycloheteroalkyl)alkylcarbonylamino, dialkylamino, arylamino, diarylamino, aralkylamino, diaralkylamino, heteroarylamino, diheteroarylamino, heteroaralkylamino, diheteroaralkylamino, alkylsulfonyl, arylsulfonyl, heteroarylsulfonyl, cycloalkylsulfonyl, aralkylcarbonylthiooxy, carbonylthio, heteroaralkylcarbonylthio, (cycloalkyloxy)carbonylthio, (cycloheteroalkyl)alkylcarbonylthio, alkyloxycarbonyl, aryloxycarbonyl, heteroaryloxycarbonyl, cycloalkyloxycarbonyl, cycloheteroalkyloxycarbonyl, aralyoxycarbonyloxloxycarbonyl, heteroaralkyloxycarbonyl, (cycloalkyl)alkyloxycarbonyl, (cycloheteroalkyl)alkyloxycarbonyl, iminoalkyl, iminocycloalkyl, iminocycloheteroalkyl, iminoaralkyl, iminoheteroaralkyl, (cycloalkyl)iminoalkyl, and (cycloheteroalkyl)iminoalkyl

Y is optionally present; and

when Y is present, Y is NR^{12}, O, S, SO, or SO^2, or a single or double bond between X^2 and X^3;

R^{12} is hydrogen or optionally substituted alkyl, alkylcarbonyl, arylcarbonyl, heteroarylcarbonyl, cycloalkylcarbonyl, cycloheteroalkylcarbonyl, aralkylcarbonyl, heteroaralkylcarbonyl, (cycloalkyl)alkylcarbonyl, (cycloheteroalkyl)alkylcarbonyl, alkylaminocarbonyl, arylaminocarbonyl, aralkylaminocarbonyl, heteroarylaminocarbonyl, heteroaralkylaminocarbonyl, alkylsulfonyl, arylsulfonyl, heteroarylsufonyl, cycloalkylsulfonyl, alkyloxycarbonyl, aryloxycarbonyl, heteroaryloxycarbonyl, cycloalkyloxycarbonyl, cycloheteroalkyloxycarbonyl, aralkyloxycarbonyloxycarbonyl, heteroaralkyloxycarbonyl, (cycloalkyl)alkyloxycarbonyl, and (cycloheteroalkyl)alkyloxycarbonyl; and

X^2 and X^3 are $(CR^{13}R^{13'})_n$ and $(CR^{14}R^{14'})_o$ respectively, wherein each of n and o is independently either 1, 2, or 3 such that the sum n + o is either 3, 4, or 5, and independently for each value of the n and o methylene units of X^2 and X^3, each of R^{13}, $R^{13'}$, R^{14}, and $R^{14'}$ is selected independently from the group consisting of: hydrogen, halo, cyano, nitro, thio, amino, carboxy, formyl, and optionally substituted alkyl, alkylcarbonyloxy, arylcarbonyloxy, heteroarylcarbonyloxy, cycloalkylcarbonyloxy, cycloheteroalkylcarbonyloxy, aralkylcarbonyloxy, heteroaralkylcarbonyloxy, (cycloalkyl)alkylcarbonyloxy, (cycloheteroalkyl)alkylcarbonyloxy, alkylcarbonyl, arylcarbonyl, heteroarylcarbonyl, cycloalkylcarbonyl, cycloheteroalkylcarbonyl, aralkylcarbonyl, heteroaralkylcarbonyl, (cycloalkyl)alkylcarbonyl, (cycloheteroalkyl)alkylcarbonyl, alkylaminocarbonyl, arylaminocarbonyl, aralkylaminocarbonyl, heteroarylaminocarbonyl, heteroaralkylaminocarbonyl, alkylcarbonylamino, arylcarbonylamino, heteroarylcarbonylamino, cycloalkylcarbonylamino, cycloheteroalkylcarbonylamino, aralkylcarbonylamino, heteroaralkylcarbonylamino, (cycloalkyl)alkylcarbonylamino, (cycloheteroalkyl)alkylcarbonylamino, dialkylamino, arylamino, diarylamino, aralkylamino, diaralkylamino, heteroarylamino, diheteroarylamino, heteroaralkylamino, diheteroaralkylamino, alkylsulfonyl, arylsulfonyl, heteroarylsulfonyl, cycloalkylsulfonyl, aralkylcarbonylthiooxy, carbonylthio, heteroaralkylcarbonylthio, (cycloalkyloxy)carbonylthio, (cycloheteroalkyl)alkylcarbonylthio, alkyloxycarbonyl, aryloxycarbonyl, heteroaryloxycarbonyl, cycloalkyloxycarbonyl, cycloheteroalkyloxycarbonyl, aralyoxycarbonyloxloxycarbonyl, heteroaralkyloxycarbonyl, (cycloalkyl)alkyloxycarbonyl, (cycloheteroalkyl)alkyloxycarbonyl, iminoalkyl, iminocycloalkyl, iminocycloheteroalkyl, iminoaralkyl, iminoheteroaralkyl, (cycloalkyl)iminoalkyl, and (cycloheteroalkyl)iminoalkyl; and

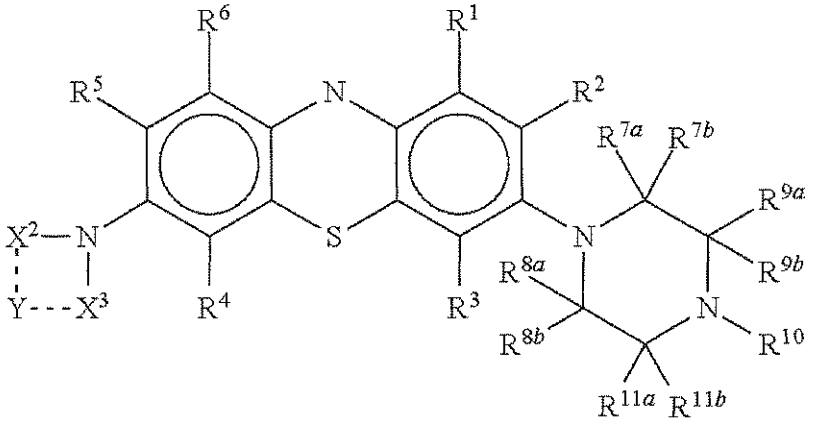
when Y is not present X^2 is R^{15} and X^3 is R^{16}, wherein

R^{15} and R^{16} are selected independently from the group consisting of: hydrogen and optionally substituted alkyl, alkylcarbonyl, arylcarbonyl, heteroarylcarbonyl, cycloalkylcarbonyl, cycloheteroalkylcarbonyl, aralkylcarbonyl, heteroaralkylcarbonyl, (cycloalkyl)alkylcarbonyl, (cycloheteroalkyl)alkylcarbonyl, alkylaminocarbonyl, arylaminocarbonyl, aralkylaminocarbonyl, heteroarylaminocarbonyl, heteroaralkylaminocarbonyl, alkylsulfonyl, arylsulfonyl, heteroarylsufonyl, cycloalkylsulfonyl, alkyloxycarbonyl, aryloxycarbonyl, heteroaryloxycarbonyl, cycloalkyloxycarbonyl, cycloheter-alkyloxycarbonyl, aralkyloxycarbonyloxycarbonyl, heteroaralkyloxycarbonyl, (cycloalkyl)alkyloxycarbonyl, and (cycloheteroalkyl)alkyloxycarbonyl

wherein when said optionally substituted alkyl is substituted, said substitution is with a group which is hydrooxyl, nitro, amino, imino, cyano, halo, thio, thioamido, amidino, oxo, oxamidino, methoxamidino, imidino, guanidino, sulfonamido, carboxyl, formyl, lower alkyl, halo loweralkyl, loweralkoxy, halo loweralkoxy, lower alkoxyalkyl, alkylcarbonyl, arylcarbonyl,

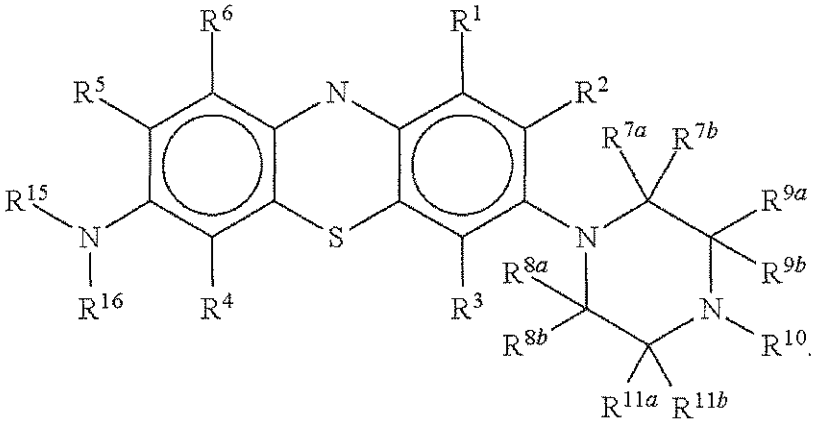
aralkylcarbonyl, heteroarylcarbonyl, heteroaralkylcarbonyl, alkylthio, aminoalkyl, or cyanoalkyl.

2. A compound of claim 1, wherein m is 1, such that X^1 is ($CR^{11'}$), thereby defining X^1 as ($CR^{11a}R^{11b}$), said compound having the structure:



wherein R^{11a} and R^{11b} are selected independently from the group consisting of: hydrogen, halo, cyano, nitro, thio, amino, carboxy, formyl, and optionally substituted alkyl, alkylcarbonyloxy, arylcarbonyloxy, heteroarylcarbonyloxy, cycloalkylcarbonyloxy, cycloheteroalkylcarbonyloxy, aralkylcarbonyloxy, heteroaralkylcarbonyloxy, (cycloalkyl)alkylcarbonyloxy, (cycloheteroalkyl)alkylcarbonyloxy, alkylcarbonyl, arylcarbonyl, heteroarylcarbonyl, cycloalkylcarbonyl, cycloheteroalkylcarbonyl, aralkylcarbonyl, heteroaralkylcarbonyl, (cycloalkyl)alkylcarbonyl, (cycloheteroalkyl)alkylcarbonyl, alkylaminocarbonyl, arylaminocarbonyl, aralkylaminocarbonyl, heteroarylaminocarbonyl, heteroaralkylaminocarbonyl, alkylcarbonylamino, arylcarbonylamino, heteroarylcarbonylamino, cycloalkylcarbonylamino, cycloheteroalkylcarbonylamino, aralkylcarbonylamino, heteroaralkylcarbonylamino, (cycloalkyl)alkylcarbonylamino, (cycloheteroalkyl)alkylcarbonylamino, dialkylamino, arylamino, diarylamino, aralkylamino, diaralkylamino, heteroarylamino, diheteroarylamino, heteroaralkylamino, diheteroaralkylamino, alkylsulfonyl, arylsulfonyl, heteroarylsulfonyl, cycloalkylsulfonyl, aralkylcarbonylthiooxy, carbonylthio, heteroaralkylcarbonylthio, (cycloalkyloxy)carbonylthio, (cycloheteroalkyl)alkylcarbonylthio, alkyloxycarbonyl, aryloxycarbonyl, heteroaryloxycarbonyl, cycloalkyloxycarbonyl, cycloheteroalkyloxycarbonyl, aralyoxycarbonyloxloxycarbonyl, heteroaralkyloxycarbonyl, (cycloalkyl)alkyloxycarbonyl, (cycloheteroalkyl)alkyloxycarbonyl, iminoalkyl, iminocycloalkyl, iminocycloheteroalkyl, iminoaralkyl, iminoheteroaralkyl, (cycloalkyl)iminoalkyl, and (cycloheteroalkyl)iminoalkyl.

3. A compound of claim 2, wherein Y is not present, said compound having the structure:



4. A compound of claim 3, wherein each of R^{15} and R^{16} is hydrogen.

5. A compound of claim 4, wherein each of R^2-R^5, R^{7a}-R^{9b}, R^{11a}, and R^{11b} is hydrogen, each of R^1 and R^6 independently is optionally substituted alkyl, and R^{10} is optionally substituted alkyl or alkylsulfonyl.

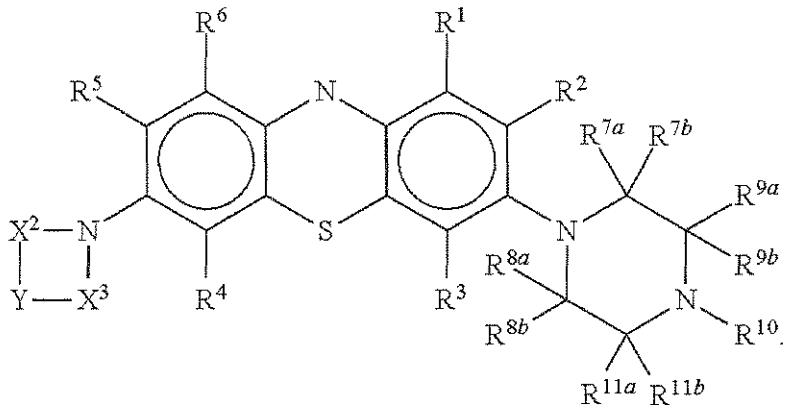
6. A compound of claim 3, wherein each of R^{15} and R^{16} independently is alkyl or alkyloxyalkyl.

7. A compound of claim 6, wherein each of R^{15} and R^{16} independently is alkyl.

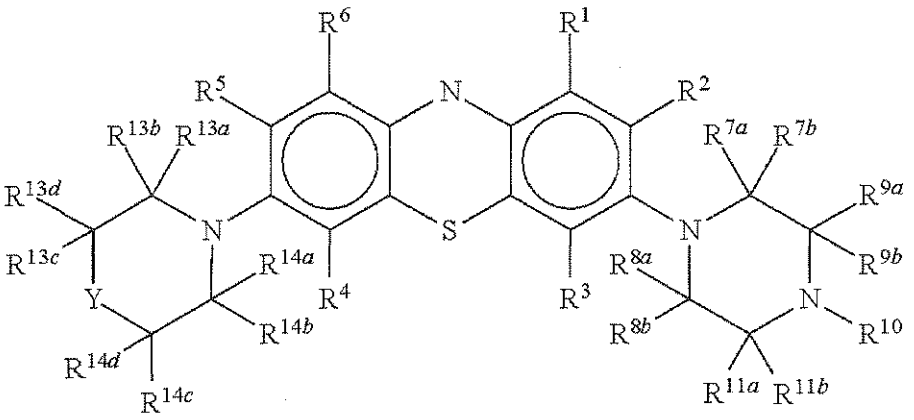
8. A compound of claim 7, wherein each of R^{15} and R^{16} independently is methyl or ethyl.

9. A compound of claim 8, wherein each of R^2-R^5, R^{7a}-R^{9b}, R^{11a}, and R^{11b} is hydrogen, and R^{10} is hydrogen, or optionally substituted alkyl, alkyloxycarbonyl, alkylsulfonyl, cycloalkylsulfonyl, and alkylaminosulfonyl.

10. A compound of claim 2, wherein Y is present, said compound having the structure:



11. A compound of claim 10, wherein each of n and o is 2, such that X^2 and X^3 have the form $(CR^{13}R^{13'})_2$ and $(CR^{14}R^{14b})_2$ respectively defining thereby X^2 as $(CR^{13a}R^{13b})(CR^{13c}R^{13d})$ and X^3 as $(CR^{14a}R^{14b})$ $(CR^{14c}R^{14d})$, said compound having the structure:



wherein R^{13a}-R^{14d} are selected independently from the group consisting of: hydrogen, halo, cyano, nitro, thio, amino, carboxy, formyl, and optionally substituted alkyl, alkylcarbonyloxy, arylcarbonyloxy, heteroarylcarbonyloxy, cycloalkylcarbonyloxy, cycloheteroalkylcarbonyloxy, aralkylcarbonyloxy, heteroaralkylcarbonyloxy, (cycloalkyl)alkylcarbonyloxy, (cycloheteroalkyl)alkylcarbonyloxy, alkylcarbonyl, arylcarbonyl, heteroarylcarbonyl, cycloalkylcarbonyl, cycloheteroalkylcarbonyl, aralkylcarbonyl, heteroaralkylcarbonyl, (cycloalkyl)alkylcarbonyl, (cycloheteroalkyl)alkylcarbonyl, alkylaminocarbonyl, arylaminocarbonyl, aralkylaminocarbonyl, heteroarylaminocarbonyl, heteroaralkylaminocarbonyl, alkylcarbonylamino, arylcarbonylamino, heteroarylcarbonylamino, cycloalkylcarbonylamino, cycloheteroalkylcarbonylamino, aralkylcarbonylamino, heteroaralkylcarbonylamino, (cycloalkyl)alkylcarbonylamino, (cycloheteroalkyl)alkylcarbonylamino, dialkylamino, arylamino, diarylamino, aralkylamino, diaralkylamino, heteroarylamino, diheteroarylamino, heteroaralkylamino, diheteroaralkylamino, alkylsulfonyl, arylsulfonyl, heteroarylsulfonyl, cycloalkylsulfonyl, aralkylcarbonylthiooxy, carbonylthio, heteroaralkylcarbonylthio, (cycloalkyloxy)carbonylthio, (cycloheteroalkyl)alkylcarbonylthio, alkyloxycarbonyl, aryloxycarbonyl, heteroaryloxycarbonyl, cycloalkyloxycarbonyl, cycloheteroalkyloxycarbonyl, aralyoxycarbonyloxloxycarbonyl, heteroaralkyloxycarbonyl, (cycloalkyl)alkyloxycarbonyl, (cycloheteroalkyl)alkyloxycarbonyl, iminoalkyl, iminocycloalkyl, iminocycloheteroalkyl, iminoaralkyl, iminoheteroaralkyl, (cycloalkyl)iminoalkyl, and (cycloheteroalkyl)iminoalkyl.

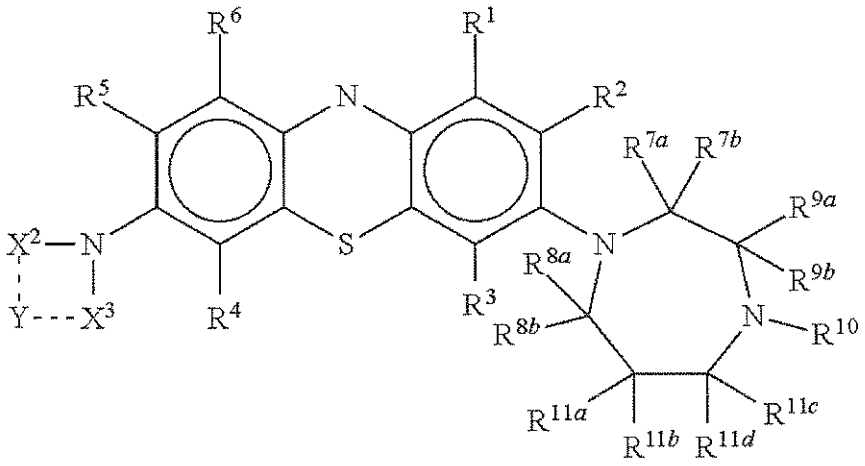
12. A compound of claim 11, wherein each of R^2-R^5, R^{7a}-R^{9b}, R^{11a}, R^{11b}, and R^{13a}-R^{14d} is hydrogen.

13. A compound of claim 12, wherein Y is NR^{12} or O.

14. A compound of claim 13, wherein Y is NR^{12}, and R^{10} and R^{12} are selected independently from the group consisting of: hydrogen, or optionally substituted alkyl, alkyloxycarbonyl, alkylsulfonyl, cycloalkylsulfonyl, and alkylaminosulfonyl.

15. A compound of claim 13, wherein Y is O.

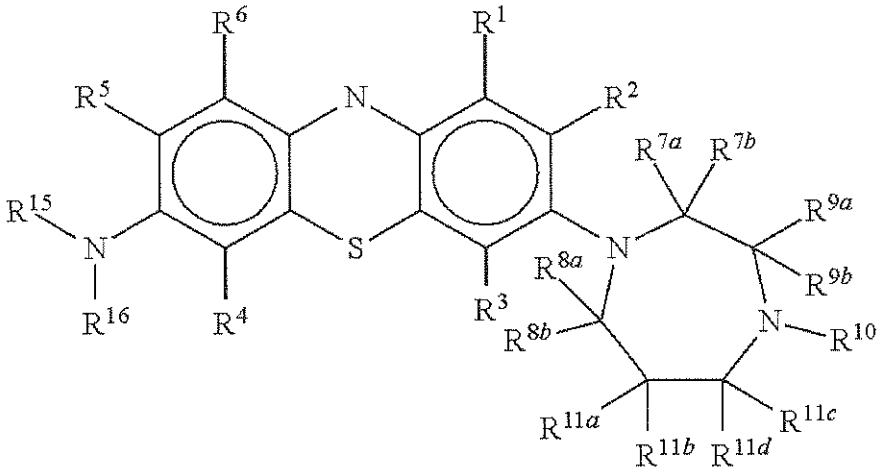
16. A compound of claim 1, wherein m is 2, such that X^1 is $(CR^{11}R^{11'})_2$, thereby defining X^1 as $(CR^{11a}R^{11b})(CR^{11c}R^{11d})$, said compound having the structure:



wherein R^{11a}-R^{11d} are selected independently from the group consisting of: hydrogen, halo, cyano, nitro, thio, amino, carboxy, formyl, and optionally substituted alkyl, alkylcarbonyloxy, arylcarbonyloxy, heteroarylcarbonyloxy, cycloalkylcarbonyloxy, cycloheteroalkylcarbonyloxy, aralkylcarbonyloxy, heteroaralkylcarbonyloxy, (cycloalkyl)alkylcarbonyloxy, (cycloheteroalkyl)alkylcarbonyloxy, alkylcarbonyl, arylcarbonyl, heteroarylcarbonyl, cycloalkylcarbonyl, cycloheteroalkylcarbonyl, aralkylcarbonyl, heteroaralkylcarbonyl, (cycloalkyl)alkylcarbonyl, (cycloheteroalkyl)alkylcarbonyl, alkylaminocarbonyl, arylaminocarbonyl, aralkylaminocarbonyl, heteroarylaminocarbonyl, heteroaralkylaminocarbonyl, alkylcarbonylamino, arylcarbonylamino, heteroarylcarbonylamino, cycloalkylcarbonylamino, cycloheteroalkylcarbonylamino, aralkylcarbonylamino, heteroaralkylcarbonylamino, (cycloalkyl)alkylcarbonylamino, (cycloheteroalkyl)alkylcarbonylamino, dialkylamino, arylamino, diarylamino, aralkylamino, diaralkylamino, heteroarylamino, diheteroarylamino, heteroaralkylamino, diheteroaralkylamino, alkylsulfonyl, arylsulfonyl, heteroarylsulfonyl, cycloalkylsulfonyl, aralkylcarbonylthiooxy, carbonylthio, heteroaralkylcarbonylthio, (cycloalkyloxy)carbonylthio, (cycloheteroalkyl)alkylcarbonylthio, alkyloxycarbonyl, aryloxycarbonyl,

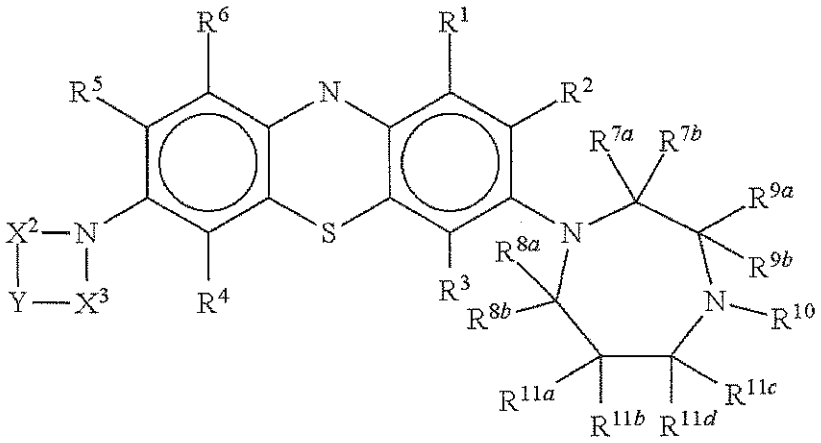
heteroaryloxycarbonyl, cycloalkyloxycarbonyl, cycloheteroalkyloxycarbonyl, aralyoxycarbonyloxloxycarbonyl, heteroaralkyloxycarbonyl, (cycloalkyl)alkyloxycarbonyl, (cycloheteroalkyl)alkyloxycarbonyl, iminoalkyl, iminocycloalkyl, iminocycloheteroalkyl, iminoaralkyl, iminoheteroaralkyl, (cycloalkyl)iminoalkyl, and (cycloheteroalkyl)iminoalkyl.

17. A compound of claim 16, wherein Y is not present, said compound having the structure:



wherein R^{11a}-R^{11d} selected independently from the group consisting of: hydrogen, halo, cyano, nitro, thio, amino, carboxy, formyl, and optionally substituted alkyl, alkylcarbonyloxy, arylcarbonyloxy, heteroarylcarbonyloxy, cycloalkylcarbonyloxy, cycloheteroalkylcarbonyloxy, aralkylcarbonyloxy, heteroaralkylcarbonyloxy, (cycloalkyl)alkylcarbonyloxy, (cycloheteroalkyl)alkylcarbonyloxy, alkylcarbonyl, arylcarbonyl, heteroarylcarbonyl, cycloalkylcarbonyl, cycloheteroalkylcarbonyl, aralkylcarbonyl, heteroaralkylcarbonyl, (cycloalkyl)alkylcarbonyl, (cycloheteroalkyl)alkylcarbonyl, alkylaminocarbonyl, arylaminocarbonyl, aralkylaminocarbonyl, heteroarylaminocarbonyl, heteroaralkylaminocarbonyl, alkylcarbonylamino, arylcarbonylamino, heteroarylcarbonylamino, cycloalkylcarbonylamino, cycloheteroalkylcarbonylamino, aralkylcarbonylamino, heteroaralkylcarbonylamino, (cycloalkyl)alkylcarbonylamino, (cycloheteroalkyl)alkylcarbonylamino, dialkylamino, arylamino, diarylamino, aralkylamino, diaralkylamino, heteroarylamino, diheteroarylamino, heteroaralkylamino, diheteroaralkylamino, alkylsulfonyl, arylsulfonyl, heteroarylsulfonyl, cycloalkylsulfonyl, aralkylcarbonylthiooxy, carbonylthio, heteroaralkylcarbonylthio, (cycloalkyloxy)carbonylthio, (cycloheteroalkyl)alkylcarbonylthio, alkyloxycarbonyl, aryloxycarbonyl, heteroaryloxycarbonyl, cycloalkyloxycarbonyl, cycloheteroalkyloxycarbonyl, aralyoxycarbonyloxloxycarbonyl, heteroaralkyloxycarbonyl, (cycloalkyl)alkyloxycarbonyl, (cycloheteroalkyl)alkyloxycarbonyl, iminoalkyl, iminocycloalkyl, iminocycloheteroalkyl, iminoaralkyl, iminoheteroaralkyl, (cycloalkyl)iminoalkyl, and (cycloheteroalkyl)iminoalkyl.

18. A compound of claim 16, wherein Y is present, said compound having the structure:



wherein R^{11a}-R^{11d} are selected independently from the group consisting of: hydrogen, halo, cyano, nitro, thio, amino, carboxy, formyl, and optionally substituted alkyl, alkylcarbonyloxy, arylcarbonyloxy, heteroarylcarbonyloxy, cycloalkylcarbonyloxy, cycloheteroalkylcarbonyloxy, aralkylcarbonyloxy, heteroaralkylcarbonyloxy, (cycloalkyl)alkylcarbonyloxy, (cycloheteroalkyl)alkylcarbonyloxy, alkylcarbonyl, arylcarbonyl, heteroarylcarbonyl, cycloalkylcarbonyl, cycloheteroalkylcarbonyl, aralkylcarbonyl, heteroaralkylcarbonyl, (cycloalkyl)alkylcarbonyl, (cycloheteroalkyl)alkylcarbonyl, alkylaminocarbonyl, arylaminocarbonyl, aralkylaminocarbonyl, heteroarylaminocarbonyl, heteroaralkylaminocarbonyl, alkylcarbonylamino, arylcarbonylamino, heteroarylcarbonylamino, cycloalkylcarbonylamino, cycloheteroalkylcarbonylamino, aralkylcarbonylamino, heteroaralkylcarbonylamino, (cycloalkyl)alkylcarbonylamino, (cycloheteroalkyl)alkylcarbonylamino, dialkylamino, arylamino, diarylamino, aralkylamino, diaralkylamino, heteroarylamino, diheteroarylamino, heteroaralkylamino, diheteroaralkylamino, alkylsulfonyl, arylsulfonyl, heteroarylsulfonyl, cycloalkylsulfonyl, aralkylcarbonylthiooxy, carbonylthio, heteroaralkylcarbonylthio, (cycloalkyloxy)carbonylthio, (cycloheteroalkyl)alkylcarbonylthio, alkyloxycarbonyl, aryloxycarbonyl, heteroaryloxycarbonyl, cycloalkyloxycarbonyl, cycloheteroalkyloxycarbonyl, aralyoxycarbonyloxloxycarbonyl, heteroaralkyloxycarbonyl, (cycloalkyl)alkyloxycarbonyl, (cycloheteroalkyl)alkyloxycarbonyl, iminoalkyl, iminocycloalkyl, iminocycloheteroalkyl, iminoaralkyl, iminoheteroaralkyl, (cycloalkyl)iminoalkyl, and (cycloheteroalkyl)iminoalkyl.

19. A compound of claim 1, which is 3-(diethylamino)-1-ethyl-7-(piperazin-1-yl)phenothiazin-5-ium.

20. A compound of claim 1, which is 3-(1,4-diazepan-1-yl)-7-(dimethylamino)-1,9-diethylphenothiazin-5-ium.

21. A compound of claim 1, which is 3-(4-(cyclopropylsulfonyl)piperazin-1-yl)-7-(dimethylamino)-1,9-diethylphenothiazin-5-ium.

22. A compound of claim 1, which is 3,7-di(4-methylpiperazin-1-yl)-1-t-butylphenothiazin-5-ium.

23. A compound of claim 1, which is 1,9-dichloro-3-(piperazin-1-yl)-7-(pyrrolidin-1-yl)phenothiazin-5-ium.

24. A compound of claim 1, which is 3,7-(di(4-methylpiperazin-1-yl))-1-ethyl-9-methylphenothiazin-5-ium.

25. A compound of claim 1, which is 3,7-di(1,4-diazepan-1-yl)-1-ethyl-9-methylphenothiazin-5-ium.

26. A compound of claim 1, which is 3-(dimethylamino)-1-ethyl-9-methyl-7-(4-(trifluoromethylsulfonyl)piperazin-1-yl)phenothiazin-5-ium.

27. A compound of claim 1, which is 3,7-di(1,4-diazepan-1-yl)-1-trifluoromethylphenothiazin-5-ium.

28. A compound of claim 1, which is a member selected from 3-amino-7-(4-isopropylpiperazin-1-yl)-1,9-dimethylphenothiazin-5-ium, 3-amino-1,9-dimethyl-7-(4-(methylsulfonyl)piperazin-1-yl)phenothiazin-5-ium, 3-amino-1,9-dimethyl-7-(4-(trifluoromethylsulfonyl)piperazin-1-yl)phenothiazin-5-ium, and 3-amino-7-(4-(isopropylsulfonyl)piperazin-1-yl)-1,9-dimethylphenothiazin-5-ium.

29. A compound of claim 1, which is a member selected from
7-(4-(tert-butoxycarbonyl)piperazin-1-yl)-1-chloro-3-(diethylamino)phenothiazin-5-ium,
1-chloro-3-(diethylamino)-7-(piperazin-1-yl)phenothiazin-5-ium,
7-(4-(tert-butoxycarbonyl)piperazin-1-yl)-3-(diethylamino)-1-ethylphenothiazin-5-ium,
3-(diethylamino)-1-ethyl-7-(piperazin-1-yl)phenothiazin-5-ium,
3-(bis(2-methoxyethyl)amino)-7-(4-(tertbutoxycarbonyl)piperazin-1-yl)-1-ethylphenothiazin-5-ium, and
3-(bis(2-methoxyethyl)amino)-1,9-dichloro-7-(piperazin-1-yl)phenothiazin-5-ium.

30. A compound of claim 1, which is a member selected from
1,9-dichloro-3,7-di(piperazin-1-yl)phenothiazin-5-ium,

1-trifluoromethyl-3,7-di(4-methylpiperazin-1-yl)phenothiazin-5-ium,
3,7-(di(4-Boc-piperazin-1-yl))-1-trifluoromethylphenothiazin-5-ium,
3,7-dipiperazinyl-1-trifluoromethylphenothiazin-5-ium,
3,7-di(4-methylpiperazin-1-yl)-1-n-butylphenothiazin-5-ium,
3,7-di(4-methylpiperazin-1-yl)-1-methylphenothiazin-5-ium,
1-(tert-butyl)-3,7-bis(4-methylpiperazin-1-yl)phenothiazin-5-ium, and
3,7-di(4-methylpiperazin-1-yl)-1-isopropylphenothiazin-5-ium.

31. A compound of claim 1, which is a member selected from
3-(dimethylamino)-1,9-dimethyl-7-(4-methylpiperazin-1-yl)phenothiazin-5-ium,
3-(4-(tert-butoxycarbonyl)piperazin-1-yl)-7-(dimethylamino)-1,9-dimethylphenothiazin-5-ium,
3-(dimethylamino)-1,9-dimethyl-7-(piperazin-1-yl)phenothiazin-5-ium,
3,7-bis(4-(tert-butoxycarbonyl)piperazin-1-yl)-1,9-dimethylphenothiazin-5-ium,
3-(butyl(methyl)amino)-7-(4-(2-methoxyethyl)piperazin-1-yl)-1,9-dimethylphenothiazin-5-ium,
3-(4-(cyclopropylsulfonyl)piperazin-1-yl)-7-(dimethylamino)-1,9-dimethylphenothiazin-5-ium,
3-(dimethylamino)-7-(4-(isopropylsulfonyl)piperazin-1-yl)-1,9-dimethylphenothiazin-5-ium,
3-(dimethylamino)-1,9-dimethyl-7-(4-(2,2,2-trifluoroethylsulfonyl)piperazin-1-yl)phenothiazin-5-ium,
4-carboxy-3-(dimethylamino)-1,9-dimethyl-7-(4-methylpiperazin-1-yl)phenothiazin-5-ium,
4-carboxy-7-(dimethylamino)-1,9-dimethyl-3-(4-methylpiperazin-1-yl)phenothiazin-5-ium,
3-(4-(cyclopropylsulfonyl)piperazin-1-yl)-7-(dimethylamino)-1-isopropyl-9-methylphenothiazin-5-ium,
3-(diethylamino)-1,9-dimethyl-7-(4-(methylsulfonyl)piperazin-1-yl)phenothiazin-5-ium,
3-(diethylamino)-1,9-dimethyl-7-(piperazin-1-yl)phenothiazin-5-ium,
3-(diethylamino)-7-(4-isopropylpiperazin-1-yl)-1,9-dimethylphenothiazin-5-ium,
3-(diethylamino)-7-(4-isopropylpiperazin-1-yl)-1,9-dimethylphenothiazin-5-ium,
1,9-diethyl-3-dimethylamino-7-[4-isopropylpiperazinyl]-phenothiazinium,
3-(butyl(methyl)amino)-1,9-dimethyl-7-(4-methylpiperazin-1-yl)phenothiazin-5-ium,
3-(dimethylamino)-1,9-diethyl-7-((4-trifluoromethylsulfonyl)piperazin-1-yl)phenothiazin-5-ium,
3-(4-(cyclopentylsulfonyl)piperazin-1-yl)-7-(dimethylamino)-1,9-diethylphenothiazin-5-ium,
3-(dimethylamino)-9-ethyl-1-isopropyl-7-(4-isopropylpiperazin-1-yl)phenothiazin-5-ium,
3-(butyl(methyl)amino)-7-((4-cyclopropylsulfonyl)piperazin-1-yl)-1,9-diethylphenothiazin-5-ium,
3-(4-cyclopentylpiperazin-1-yl)-7-(dimethylamino)-1,9-diethylphenothiazin-5-ium,
3-(dimethylamino)-1,9-diethyl-7-(4-(2-methoxyethyl)piperazin-1-yl)phenothiazin-5-ium,
3-(4-(cyclopropylsulfonyl)piperazin-1-yl)-7-(dimethylamino)-1-ethyl-9-isopropylphenothiazin-5-ium,

3-(dimethylamino)-9-ethyl-1-isopropyl-7-((4-trifluoromethylsulfonyl)piperazin-1-yl)phenothiazin-5-ium,
3-(dimethylamino)-7-(4-(N,N-dimethylsulfamoyl)piperazin-1-yl)-1,9-diethylphenothiazin-5-ium,
3-(4-(cyclopropylsulfonyl)piperazin-1-yl)-7-(dimethylamino)-1,9-diethylphenothiazin-5-ium,
3-((4-tert-butylcarbamoyl)piperazin-1-yl)-7-(dimethylamino)-1,9-diethylphenothiazin-5-ium,
3-(4-butylpiperazin-1-yl)-7-(dimethylamino)-1,9-diethylphenothiazin-5-ium,
3-(4-acetylpiperazin-1-yl)-7-(methyl(n-butyl)amino)-1,9-dimethylphenothiazin-5-ium,
3-(4-boc-piperazin-1-yl)-7-(methyl(n-butyl)amino)-1,9-dimethylphenothiazin-5-ium,
3-(piperazin-1-yl)-7-(methyl(n-butyl)amino)-1,9-dimethylphenothiazin-5-ium,
3-(dimethylamino)-1-ethyl-9-methyl-7-(4-methylpiperazin-1-yl)-phenothiazin-5-ium,
3-(dimethylamino)-1-ethyl-9-methyl-7-(4-(trifluoromethylsulfonyl)piperazin-1-yl)phenothiazin-5-ium,
3-(4-(cyclopropylsulfonyl)piperazin-1-yl)-7-(dimethylamino)-9-ethyl-1-methyl-phenothiazin-5-ium, and
3-(bis(2-methoxyethyl)amino)-1-ethyl-9-methyl-7-(4-methylpiperazin-1-yl)phenothiazin-5-ium.

32. A compound of claim 1, which is a member selected from
1,9-dimethyl-3,7-bis(4-methylpiperazin-1-yl)phenothiazin-5-ium,
3,7-bis(4-(tert-butoxycarbonyl)piperazin-1-yl)-1,9-dimethylphenothiazin-5-ium,
3,7-bis[4-(2-methoxyethyl)piperazin-1-yl]-1,9-dimethyl-phenothiazin-5-ium,
1,9-dimethyl-3,7-bis(4-sulfamoylpiperazin-1-yl)phenothiazin-5-ium,
3,7-bis(4-isopropylpiperazin-1-yl)-1,9-dimethylphenothiazin-5-ium,
3,7-bis(4(cyclopropanecarbonyl)piperazin-1-yl)-1,9-diethylphenothiazin-5-ium,
3,7-bis(4-(cyclopropylsulfonyl)piperazin-1-yl)-1,9-diethyl-phenothiazin-5-ium,
3,7-di(4-acetylpiperazin-1-yl)-1,9-dimethylphenothiazin-5-ium, and
3,7-(di(4-methylpiperazin-1-yl))-1-ethyl-9-methylphenothiazin-5-ium.

33. A compound of claim 1, which is a member selected from
1,9-dimethyl-3-morpholino-7-(4-sulfamoylpiperazin-1-yl)phenothiazin-5-ium,
3-((2R,6S)-2,6-dimethylmorpholino)-1,9-dimethyl-7-(4-sulfamoylpiperazin-1-yl)phenothiazin-5-ium,
3-((2R,6R)-2,6-dimethylmorpholino)-1,9-dimethyl-7-(4-sulfamoylpiperazin-1-yl)phenothiazin-5-ium,
1,9-diethyl-3-morpholino-7-(4-sulfamoylpiperazin-1-yl)phenothiazin-5-ium,
3-(4-(tert-butoxycarbonyl)-3-(methoxycarbonyl)-piperazin-1-yl)-1,9-diethyl-7-morpholinophenothiazin-5-ium,
3-(4-boc-piperazin-1-yl)-1-ethyl-9-methyl-7-morpholino-phenothiazin-5-ium, and

1-ethyl-9-methyl-7-morpholino-3-(piperazin-1-yl)-phenothiazin-5-ium.

34. A compound of claim 1, which is a member selected from
3-(azetidin-1-yl)-7-(4-(isopropylsulfonyl)piperazin-1-yl)-1,9-dimethylphenothiazin-5-ium,
1,9-dimethyl-3-(pyrrolidin-1-yl)-7-(4-(2,2,2-trifluoroethylsulfonyl)piperazin-1-yl)phenothiazin-5-ium, and
3-(4-(cyclopropylsulfonyl)piperazin-1-yl)-9-ethyl-1-methyl-7-(pyrrolidin-1-yl)-phenothiazin-5-ium.

35. A compound of claim 1, which is a member selected from
3-(4-(cyclopropylsulfonyl)-1,4-diazepan-1-yl)-7-(dimethylamino)-1,9-diethylphenothiazin-5-ium,
3-(dimethylamino)-1,9-diethyl-7-((methylsulfonyl)-1,4-diazepan-1-yl)phenothiazin-5-ium,
3-(dimethylamino)-1,9-diethyl-7-(4-(ethylsulfonyl)-1,4-diazepan-1-yl)phenothiazin-5-ium,
3-(4-(tert-butylcarbamoyl)-1,4-'diazepan-1-yl)-7-(dimethylamino)-1,9-diethylphenothiazin-5-ium,
3-(dimethylamino)-1,9-diethyl-7-(4-sulfamoyl-1,4-diazepan-1-yl)phenothiazin-5-ium,
3-(dimethylamino)-1,9-diethyl-7-(4-(isopropylsulfonyl)-1,4-diazepan-1-yl)phenothiazin-5-ium,
3-(dimethylamino)-1,9-diethyl-7-(4-(methylbut-2-enyl)-1,4-diazepan-1-yl)phenothiazin-5-ium,
3-(4-(tert-butoxycarbonyl)-1,4-diazepan-1-yl)-7-(dimethylamino)-1,9-diethylphenothiazin-5-ium, and
3-(1,4-diazepan-1-yl)-7-(dimethylamino)-1,9-diethylphenothiazin-5-ium.

36. A compound of claim 1, which is a member selected from
3,7-di(1,4-diazepan-1-yl)-1,9-dimethylphenothiazin-5-ium,
3-(1,4-diazepan-1-yl)-1,9-diethyl-7-(4-ureidopiperidin-1-yl)phenothiazin-5-ium,
3,7-di(1,4-diazepan-1-yl)-1,9-diethylphenothiazin-5-ium,
3-(4-(tert-butoxycarbonyl)-1,4-diazepan-1-yl)-1,9-diethyl-7-(2-methylpyrrolidin-1-yl)phenothiazin-5-ium,
3-(1,4-diazepan-1-yl)-1,9-diethyl-7-(2-methylpyrrolidin-1-yl)phenothiazin-5-ium,
3,7-bis(4-(tert-butoxycarbonyl)-1,4-diazepan-1-yl)-1,9-diethylphenothiazin-5-ium,
1-ethyl-9-methyl-7-((4-methylsulfonyl)-1,4-diazepan-1-yl)-3-(pyrrolidin-1-yl)-phenothiazin-5-ium,
3,7-bis(4-boc-1,4-diazepan-1-yl)-1-ethyl-9-methyl-phenothiazin-5-ium,
3-(4-boc-1,4-diazepan-1-yl)-1-ethyl-9-methyl-7-(pyrrolidin-1-yl)-phenothiazin-5-ium,
3,7-di(1,4-diazepan-1-yl)-1-ethyl-9-methyl-phenothiazin-5-ium, and
3-(1,4-diazepan-1-yl)-1-ethyl-9-methyl-7-(pyrrolidin-1-yl)-phenothiazin-5-ium.