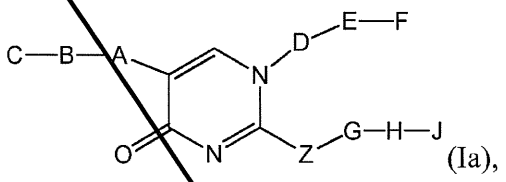
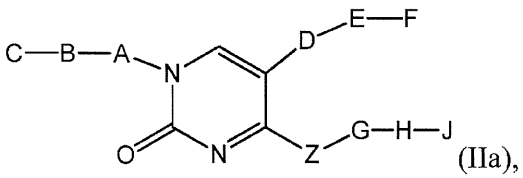
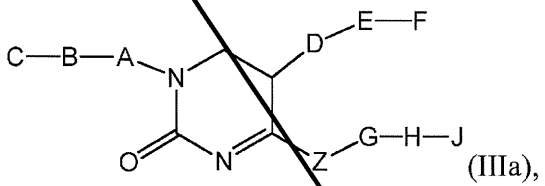
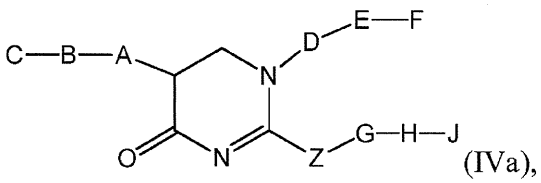
What is claimed is:

1. A compound having the formula:

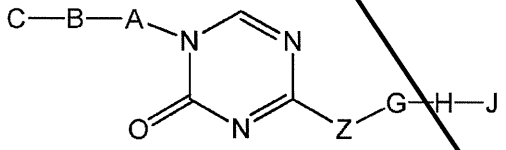

(Ia),


(IIa),


(IIIa),

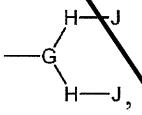

(IVa),

or


(Va)

wherein Z is selected from the group consisting of O, NR^4, $S(O)_n$, NR^4CO, $CONR^4$, or NR^4CONR^4,

wherein –G–H–J, alternatively, is selected from



wherein each H and J are independently selected,

C–B–A–, –D–E–F, and –G–H–J are chemical moieties, wherein

A, D and G are independently selected from the group consisting of:

(a) a single bond, (b) –(C_{1-8} alkyl)– , (c) –(C_{2-8} alkenyl)–, (d) –(C_{2-8} alkynyl)–, wherein

i) 0–4 carbon atoms in any of (b)–(d) immediately above optionally is replaced by a moiety selected from the group consisting of –O–, $–S(O)_p–$, $–NR^6–$, –(C=O)–, $–S(O)_pNR^6–$, $–NR^6S(O)_p–$, and $–NR^6S(O)_pNR^6–$,

ii) any of (b)–(d) immediately above optionally is substituted with one or more R^5 groups, and

iii) any of (b)–(d) immediately above optionally is substituted with –(C_{1-8} alkyl)–R^5 groups;

(e) –O–, (f) –NR^6–, (g) –$S(O)_p$–, (h) –C(O)–, (i) –C(O)O–, (j) –OC(O)–, k) –OC(O)O–, (l) –$C(O)NR^6$–, (m) –NR^6CO–, (n) –$NR^6C(O)NR^6$–, (o) –$C(=NR^6)$–, (p) –$C(=NR^6)O$–, (q) –$OC(=NR^6)$–, (r) –$C(=NR^6)NR^6$–, (s) –$NR^6C(=NR^6)$–, (t) –C(=S)–, (u) –C(=S)NR^6–, (v) –$NR^6C(=S)$–, (w) –C(O)S–, (x) –SC(O)–, (y) –OC(=S)–, (z) –C(=S)O–, (aa) –$NR^6(CNR^6)NR^6$–, (bb) –$CR^6R^6C(O)$–, (cc) –$C(O)NR^6(CR^6R^6)_t$–, (dd) a 3–14 member saturated, unsaturated, or aromatic heterocycle containing one or more heteroatoms selected from the group consisting of nitrogen, oxygen, and sulfur, (ee) a 3–14 member saturated, unsaturated, or aromatic carbocycle, and (ff) –$(CR^6R^6)_t$–,

wherein (dd) or (ee) is optionally substituted with one or more R^5 groups;

B, E, and H are independently selected from the group consisting of:

(a) a single bond,

(b) a 3–14 member saturated, unsaturated, or aromatic heterocycle containing one or more heteroatoms selected from the group consisting of nitrogen, oxygen, and sulfur,

(c) a 3–14 member saturated, unsaturated, or aromatic carbocycle,

wherein (b) or (c) is optionally substituted with one or more R^5 groups;

(d) –(C_{1-8} alkyl)–, (e) –(C_{2-8} alkenyl)–, (f) –(C_{2-8} alkynyl)–, wherein

i) 0–4 carbon atoms in any of (d)–(f) immediately above optionally is replaced by a moiety selected from the group consisting of –O–, –$S(O)_p$–, –NR^6–, –(C=O)–, –$C(=NR^6)$–, –$S(O)_pNR^6$–, –$NR^6S(O)_p$–, and –$NR^6S(O)_pNR^6$–,

ii) any of (d)–(f) immediately above optionally is substituted with one or more R^5 groups, and

iii) any of (d)–(f) immediately above optionally is substituted with –(C_{1-8} alkyl)–R^5 groups;

and (g) –$(CR^6R^6)_t$–,

C, F, and J are independently selected from the group consisting of:

(a) hydrogen, (c) F, (d) Cl, (e) Br, (f) I, (g) –CF_3, (h) –CN, (i) –N_3 (j) –NO_2, (k) –$NR^6(CR^6R^6)_tR^8$, (l) –OR^8, (m) –$S(O)_p(CR^6R^6)_tR^8$, (n) –$C(O)(CR^6R^6)_tR^8$, (o) –$OC(O)(CR^6R^6)_tR^8$, (p) –$SC(O)(CR^6R^6)_tR^8$, (q) –$C(O)O(CR^6R^6)_tR^8$, (r) –

$NR^6C(O)(CR^6R^6)_tR^8$, (s) $-C(O)NR^6(CR^6R^6)_tR^8$, (t) $-C(=NR^6)(CR^6R^6)_tR^8$, (u) $-C(=NNR^6R^6)(CR^6R^6)_tR^8$, (v) $-C(=NNR^6C(O)R^6)(CR^6R^6)_tR^8$, (w) $-C(=NOR^8)(CR^6R^6)_tR^8$, (x) $-NR^6C(O)O(CR^6R^6)_tR^8$, (y) $-OC(O)NR^6(CR^6R^6)_tR^8$, (z) $-NR^6C(O)NR^6(CR^6R^6)_tR^8$, (aa) $-NR^6S(O)_p(CR^6R^6)_tR^8$, (bb) $-S(O)_pNR^6(CR^6R^6)_tR^8$, (cc) $-NR^6S(O)_pNR^6(CR^6R^6)_tR^8$, (dd) $-NR^6R^8$, (ee) $-NR^6(CR^6R^6)R^8$, (ff) $-OH$, (gg) $-NR^8R^8$, (hh) $-OCH_3$, (ii) $-S(O)_pR^8$, (jj) $-NC(O)R^8$, (kk) $-NR^6C(NR^6)NR^6R^8$, (ll) a C_{1-8} alkyl group, (mm) a C_{2-8} alkenyl group, (nn) a C_{2-8}alkynyl group, (oo) a 3–14 member saturated, unsaturated, or aromatic heterocycle containing one or more heteroatoms selected from the group consisting of nitrogen, oxygen, and sulfur, (pp) a 3–14 member saturated, unsaturated, or aromatic carbocycle, (qq) $-(CR^6R^6)_tNR^6(CR^6R^6)_tR^8$, (rr) $-N[(CR^6R^6)_tR^8][C=O(CR^6R^6)_tR^8]$, (ss) $-(CR^6R^6)_tN[(CR^6R^6)_tR^8][(CR^6R^6)_tR^8]$, (tt) $-(CR^6R^6)_tNR^6(C=O)(CR^6R^6)_tR^8$, (uu) –haloalkyl, (vv) $-C(O)(CR^6)[(CR^6R^6)_tR^8]R^8$, (ww) $-(CR^6R^6)_tC(O)NR^8R^8$, (xx) $-(CR^6R^6)_tC(O)O(CR^6R^6)_tR^8$, (yy) $-NR^6C(O)CR^8R^8R^8$, (zz) $-N[(CR^6R^6)_tR^8]C(O)R^8$, and (aaa) $-S(O)_pNR^8R^8$;

wherein (ll) through (pp) is optionally substituted with one or more R^7 groups;

R^5 is selected from (a) hydrogen, (b) F, (c) Cl, (d) Br, (e) I, (f) $-CF_3$, (g) –CN, (h) $-N_3$ (i) $-NO_2$, (j) $-NR^6R^6$, (k) $-OR^8$, (l) $-NR^6(CNR^6)NR^6R^6$, (m) $-C_{1-8}$ alkyl, (n) $-C_{1-8}$ alkenyl, (o) $-C_{1-8}$ alkynyl, (p) $-(C_{1-8}$ alkyl)–(3–14 member saturated, unsaturated, or aromatic heterocycle containing one or more heteroatoms selected from the group consisting of nitrogen, oxygen, and sulfur), (q) $-(C_{1-8}$ alkyl)–(3–14 member saturated, unsaturated, or aromatic carbocycle), (r) –haloalkyl, (s) $-SR^6$, (t) –3–14 member saturated, unsaturated, or aromatic heterocycle containing one or more heteroatoms selected from the group consisting of nitrogen, oxygen, and sulfur, and (u) –3–14 member saturated, unsaturated, or aromatic carbocycle; alternatively, two R^5 groups are taken together to form a carbocycle,

wherein (m) through (r) and (t) through (u) is optionally substituted with one or more R^8;

R^6 is selected from (a) hydrogen, (b) $-C_{1-8}$ alkyl or alternatively two R^6 groups are taken together to form a carbocycle, (c) –haloalkyl, (d) –3–14 member saturated, unsaturated, or

aromatic heterocycle containing one or more heteroatoms selected from the group consisting of nitrogen, oxygen, and sulfur, and (e) –3–14 member saturated, unsaturated, or aromatic carbocycle;

wherein (b) through (e) is optionally substituted with one or more R^8;

R^7 is selected from (a) hydrogen, (b) F, (c) Cl, (d) Br, (e) I, (f) $-CF_3$, (g) –CN, (h) $-N_3$ (i) $-NO_2$, (j) $-NR^6R^6$, (k) $-OR^6$, (l) $-NR^6(CNR^6)NR^6R^6$, (m) $-C_{1-8}$ alkyl, (n) $-C_{1-8}$ alkenyl, (o) $-C_{1-8}$ alkynyl, (p) $-(C_{1-8}$ alkyl)–(3–14 member saturated, unsaturated, or aromatic heterocycle containing one or more heteroatoms selected from the group consisting of nitrogen, oxygen, and sulfur), (q) $-(C_{1-8}$ alkyl)–(3–14 member saturated, unsaturated, or aromatic carbocycle), (r) –haloalkyl, (s) $-NR^6R^8$, (t) $-OR^8$, (u) $-(CR^6R^6)_tNR^6R^8$, (v) $-CR^6R^8R^8$, (w) $-SR^6$, (x) –3–14 member saturated, unsaturated, or aromatic heterocycle containing one or more heteroatoms selected from the group consisting of nitrogen, oxygen, and sulfur, (y) –3–14 member saturated, unsaturated, or aromatic carbocycle, (z) $-(CR^6R^6)_tC(O)NR^8R^8$, (aa) $-S(O)_pR^8$, (bb) $-NR^6C(O)NR^6R^6$, (cc) $-NR^6C(O)R^6$, and (dd) $-C(=NR^6)NR^6R^6$;

wherein (m) through (q) and (x) through (y) are optionally substituted with one or more R^9;

R^8 is selected from (a) hydrogen, (b) F, (c) Cl, (d) Br, (e) I, (f) $-CF_3$, (g) –CN, (h) $-N_3$ (i) $-NO_2$, (j) $-NR^6R^9$, (k) $-OR^9$, (l) $-NR^6(CNR^6)NR^6R^6$, (m) $-C_{1-8}$ alkyl, (n) $-C_{1-8}$ alkenyl, (o) $-C_{1-8}$ alkynyl, (p) $-(C_{1-8}$ alkyl)–(3–14 member saturated, unsaturated, or aromatic heterocycle containing one or more heteroatoms selected from the group consisting of nitrogen, oxygen, and sulfur), (q) $-(C_{1-8}$ alkyl)–(3–14 member saturated, unsaturated, or aromatic carbocycle), (r) –3–14 member saturated, unsaturated, or aromatic heterocycle containing one or more heteroatoms selected from the group consisting of nitrogen, oxygen, and sulfur, (s) –3–14 member saturated, unsaturated, or aromatic carbocycle, (t) –haloalkyl, (u) $-C(O)(CR^6R^6)_tR^9$, (v) $-SR^6$, (w) $-OC(O)(CR^6R^6)_tR^9$, (x) $-NR^6C(O)NR^6R^9$, (y) $-NR^6C(O)R^9$, (z) $-NR^6(CNR^9)(NR^6R^6)$, (aa) $-ONR^6(CNR^6)NR^6R^6$, (bb) $-C(=NR^9)NR^6R^6$, (cc) $-S(O)_pR^9$, (dd) $-(CR^6R^6)_tC(O)NR^6R^9$, (ee) $-(CR^6R^6)_tOR^9$, and (ff) $-(CR^6R^6)_tNR^6R^9$;

wherein (m) through (s) is optionally substituted with one or more R^9;

R^9 is selected from (a) hydrogen, (b) F, (c) Cl, (d) Br, (e) I, (f) $-CF_3$, (g) –CN, (h) $-N_3$ (i) $-NO_2$, (j) $-NR^6R^{10}$, (k) $-OR^6$, (l) $-NR^6(CNR^6)NR^6R^6$, (m) $-C(O)(CR^6R^6)_tNR^6R^6$, (n) $-C_{1-8}$ alkyl, (o) $-C_{1-8}$ alkenyl, (p) $-C_{1-8}$ alkynyl, (q) –3–14 member saturated, unsaturated, or aromatic heterocycle containing one or more heteroatoms selected from the group consisting of nitrogen, oxygen, and sulfur, (r) –3–14 member saturated, unsaturated, or aromatic carbocycle, (s) –haloalkyl, (t) $-(CR^6R^6)_tOR^6$, (u) $-O(CR^6R^6)_tNR^6R^{10}$, (v) $-C(O)R^6$, (w) $-SR^6$, (x) $-C(O)OR^{10}$, (y) $-S(O)_pR^6$, (z) $-(C_{1-8}$ alkyl)–(3–14 member saturated, unsaturated, or aromatic heterocycle containing one or more heteroatoms selected from the group consisting of nitrogen, oxygen, and sulfur), (aa) $-(C_{1-8}$ alkyl)–(3–14 member saturated, unsaturated, or aromatic carbocycle), (bb) $-O(CR^6R^6)_tOR^6$, (cc) $-C(=NR^6)NR^6R^6$, (dd) $-ONR^6R^6$, (ee) $-NR^6C(O)NR^6R^6$, (ff) $-O(CR^6R^6)_tOR^6$, (gg) $-NR^6C(O)R^6$, and (hh) $-(CR^6R^6)_tNR^6R^{10}$;

wherein (n) through (r) and (z) through (aa) is optionally substituted with one or more R^{10};

R^{10} is selected from (a) hydrogen, (b) F, (c) Cl, (d) Br, (e) I, (f) $-CF_3$, (g) –CN, (h) $-N_3$ (i) $-NO_2$, (j) $-NR^6R^6$, (k) $-OR^6$, (l) $-NR^6(CNR^6)NR^6R^6$, (m) $-C(O)(CR^6R^6)_tNR^6R^6$, (n) $-C_{1-8}$ alkyl, (o) $-C_{1-8}$ alkenyl, (p) $-C_{1-8}$ alkynyl, (q) –3–14 member saturated, unsaturated, or aromatic heterocycle containing one or more heteroatoms selected from the group consisting of nitrogen, oxygen, and sulfur, (r) –3–14 member saturated, unsaturated, or aromatic carbocycle, (s) –haloalkyl, (t) $-(CR^6R^6)_tOR^6$, (u) $-O(CR^6R^6)_tNR^6R^6$, (v) $-C(O)R^6$, (w) $-SR^6$, (x) $-C(O)OR^6$, (y) $-S(O)_pR^6$, (z) $-(C_{1-8}$ alkyl)–(3–14 member saturated, unsaturated, or aromatic heterocycle containing one or more heteroatoms selected from the group consisting of nitrogen, oxygen, and sulfur), (aa) $-(C_{1-8}$ alkyl)–(3–14 member saturated, unsaturated, or aromatic carbocycle), (bb) $-O(CR^6R^6)_tOR^6$, (cc) $-C(=NR^6)NR^6R^6$, (dd) $-ONR^6R^6$, (ee) $-NR^6C(O)NR^6R^6$, (ff) $-O(CR^6R^6)_tOR^6$, (gg) $-NR^6C(O)R^6$, and (hh) $-(CR^6R^6)_tNR^6R^6$;

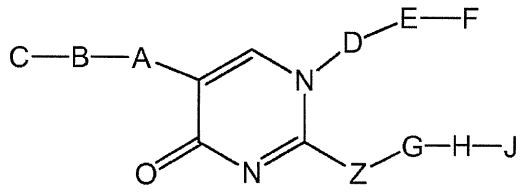
optionally, wherein either –D–E–F or –G–H–J is hydrogen;

p is 0, 1, or 2, and

t is 0, 1, 2, or 3,

or a pharmaceutically acceptable salt, ester, tautomer, or prodrug thereof.

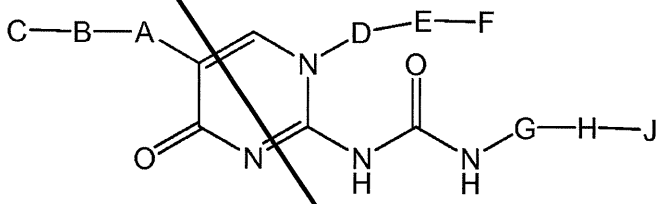
2. The compound according to Claim 1 having the formula:



wherein Z is selected from the group $-NR^4$, $-NR^4CO-$, $-CONR^4-$, and $-NR^4CONR^4-$; or a pharmaceutically acceptable salt, ester, tautomer, or prodrug thereof.

3. The compound according to Claim 2, wherein Z is $-NR^4CONR^4-$; or a pharmaceutically acceptable salt, ester, tautomer, or prodrug thereof.

4. The compound according to Claim 3 having the formula:



wherein Z is –NHCONH–; or a pharmaceutically acceptable salt, ester, tautomer, or prodrug thereof.

5. The compound according Claim 4, wherein

A is selected from

(a) a 3–14 member saturated, unsaturated, or aromatic heterocycle containing one or more heteroatoms selected from the group consisting of nitrogen, oxygen, and sulfur,

(b) a 3–14 member saturated, unsaturated, or aromatic carbocycle, and

(c) a single bond,

wherein (a) or (b) is optionally substituted with one or more R^5 groups;

B is selected from (a) $-(C_{1-8}$ alkyl$)-$, (b) $-(C_{2-8}$ alkenyl$)-$, (c) $-(C_{2-8}$ alkynyl$)-$, (d) a single bond, wherein

i) 0–4 carbon atoms in any of (a)–(c) immediately above optionally is replaced by a moiety selected from the group consisting of $-O-$, $-S(O)_p-$, $-NR^6-$, $-(C=O)-$, $-C(=NR^6)-$, $-S(O)_pNR^6-$, and $-NR^6S(O)_pNR^6-$,

ii) any of (a)–(c) immediately above optionally is substituted with one or more R^5 groups, and

iii) any of (a)–(c) immediately above optionally is substituted with –(C_1–C_8 alkyl)–R^5 groups, and

C is selected from (a) NH_2, (b) –NHC(=NH)NH_2 and (c) hydrogen;

or a pharmaceutically acceptable salt, ester, tautomer, or prodrug thereof.

6. The compound according to Claim 5, wherein

A is selected from azepanyl, cyclobutyl, cyclopentyl, cyclohexyl, cycloheptyl, phenyl, pyridinyl, cyclohexenyl, cyclohexadienyl, dihydropyridyl, furanyl, tetrahydrofuranyl, tetrahydropyridyl, azetidinyl, pyrrolidinyl, piperidinyl, and piperidenyl;

wherein any of A immediately above optionally is substituted with one or more R^5 groups;

alternatively, A is a single bond;

B is selected from (a) –(C_{1-8} alkyl)–, wherein

i) 0–4 carbon atoms in (a) immediately above optionally is replaced by a moiety selected from the group consisting of –O–, –$S(O)_p$–, –NR^6–, –(C=O)– , –$S(O)_pNR^6$–, and –$NR^6S(O)_pNR^6$–,

ii) (a) immediately above optionally is substituted with one or more R^5 groups, and

iii) (a) immediately above optionally is substituted with –(C_{1-8} alkyl)–R^5 groups; and

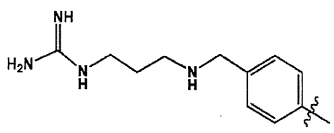
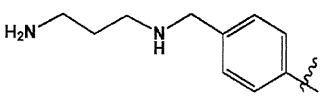
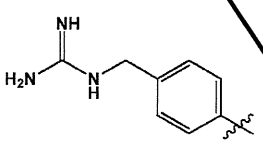
alternatively, B is a single bond;

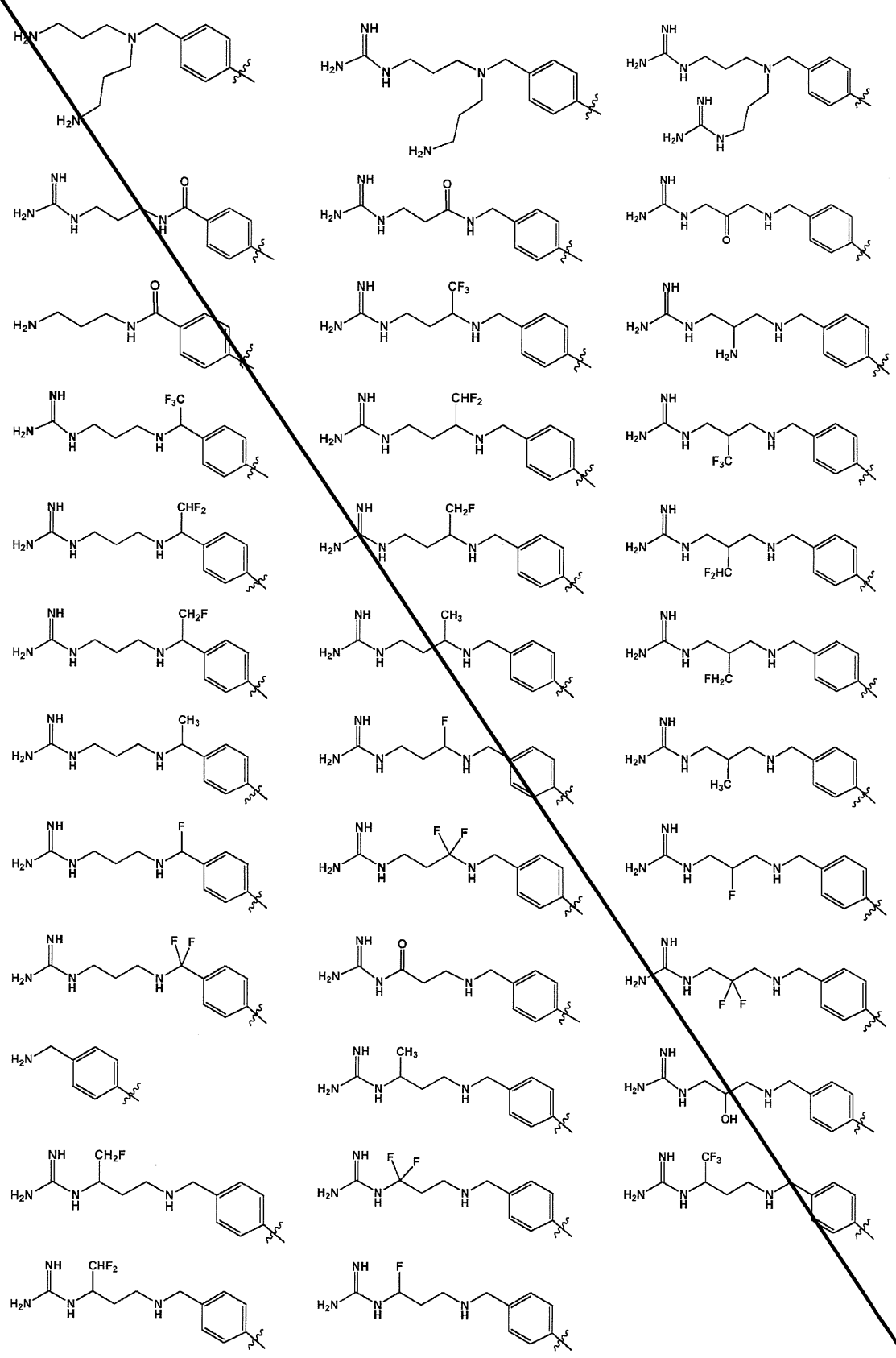
C is selected from (a) NH_2, (b) –NHC(=NH)NH_2 and (c) hydrogen;

or a pharmaceutically acceptable salt, ester, tautomer, or prodrug thereof.

7. The compound according to Claim 6, wherein C–B–A– is selected from the group consisting of:

hydrogen,



or a pharmaceutically acceptable salt, ester, tautomer, or prodrug thereof.

8. The compound according to Claim 4, wherein G is selected from

(a) a 3–14 member saturated, unsaturated, or aromatic heterocycle containing one or more heteroatoms selected from the group consisting of nitrogen, oxygen, and sulfur,

(b) a 3–14 member saturated, unsaturated, or aromatic carbocycle, and

(c) a single bond;

wherein (a) or (b) is optionally substituted with one or more R^5 groups,

or a pharmaceutically acceptable salt, ester, tautomer, or prodrug thereof.

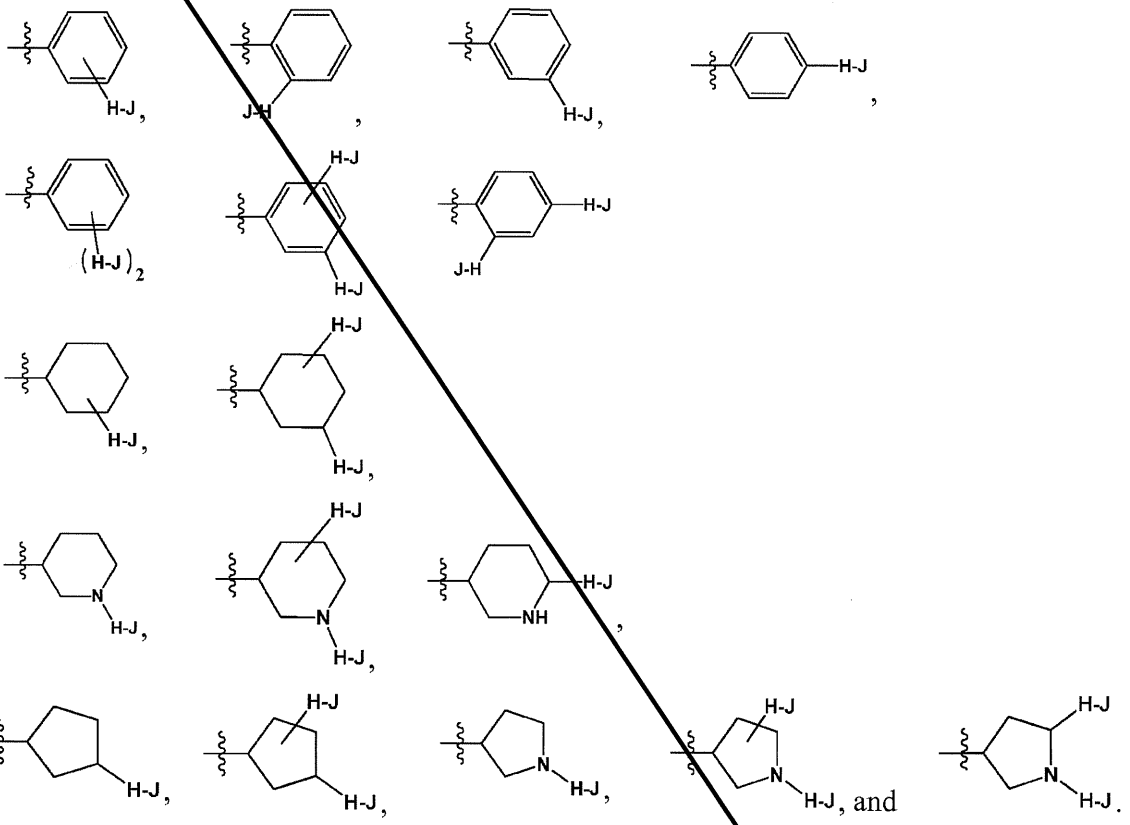
9. The compound according to Claim 5, wherein R^5 is selected from (a) hydrogen, (b) F, (c) Cl, (d) Br, (e) I, (f) $-CF_3$, (g) $-CN$, (h) $-N_3$ (i) $-NO_2$, (j) $-NH_2$, (k) $-OR^6$, (l) $-NHC(=NH)NH_2$, (m) $-C_{1-8}$ alkyl, (n) $-C_{1-8}$ alkenyl, (o) $-C_{1-8}$ alkynyl, (p) $-(C_{1-8}$ alkyl$)-$(3–14 member saturated, unsaturated, or aromatic heterocycle containing one or more heteroatoms selected from the group consisting of nitrogen, oxygen, and sulfur), (q) $-(C_{1-8}$ alkyl$)-$(3–14 member saturated, unsaturated, or aromatic carbocycle), (r) –haloalkyl, (s) $-SR^6$, (t) –3–14 member saturated, unsaturated, or aromatic heterocycle containing one or more heteroatoms selected from the group consisting of nitrogen, oxygen, and sulfur, and (u) –3–14 member saturated, unsaturated, or aromatic carbocycle; alternatively, two R^5 groups are taken together to form a carbocycle, or a pharmaceutically acceptable salt, ester, tautomer, or prodrug thereof.

10. The compound according to Claim 5, wherein R^6 is selected from (a) hydrogen, (b) $-C_{1-8}$ alkyl or alternatively two R^6 groups are taken together to form a carbocycle, (c) –haloalkyl, (d) –3–14 member saturated, unsaturated, or aromatic heterocycle containing one or more heteroatoms selected from the group consisting of nitrogen, oxygen, and sulfur, and (e) –3–14 member saturated, unsaturated, or aromatic carbocycle, or a pharmaceutically acceptable salt, ester, tautomer, or prodrug thereof.

11. The compound according to Claim 8, wherein G is selected from azepanyl, cyclobutyl, cyclopentyl, cyclohexyl, cycloheptyl, phenyl, pyridinyl, cyclohexenyl, cyclohexadienyl,

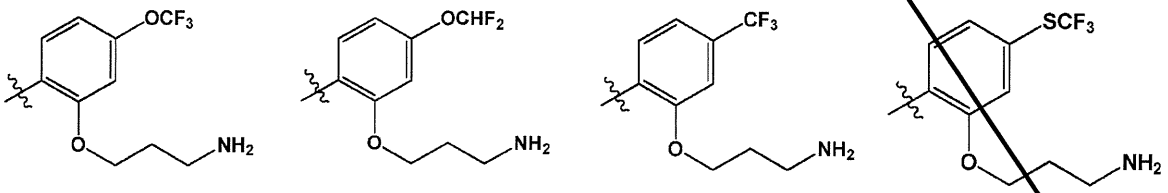
dihydropyridyl, furanyl, tetrahydrofuranyl, tetrahydropyridyl, azetidinyl, pyrrolidinyl, piperidinyl, piperidenyl, and a single bond; or a pharmaceutically acceptable salt, ester, tautomer, or prodrug thereof.

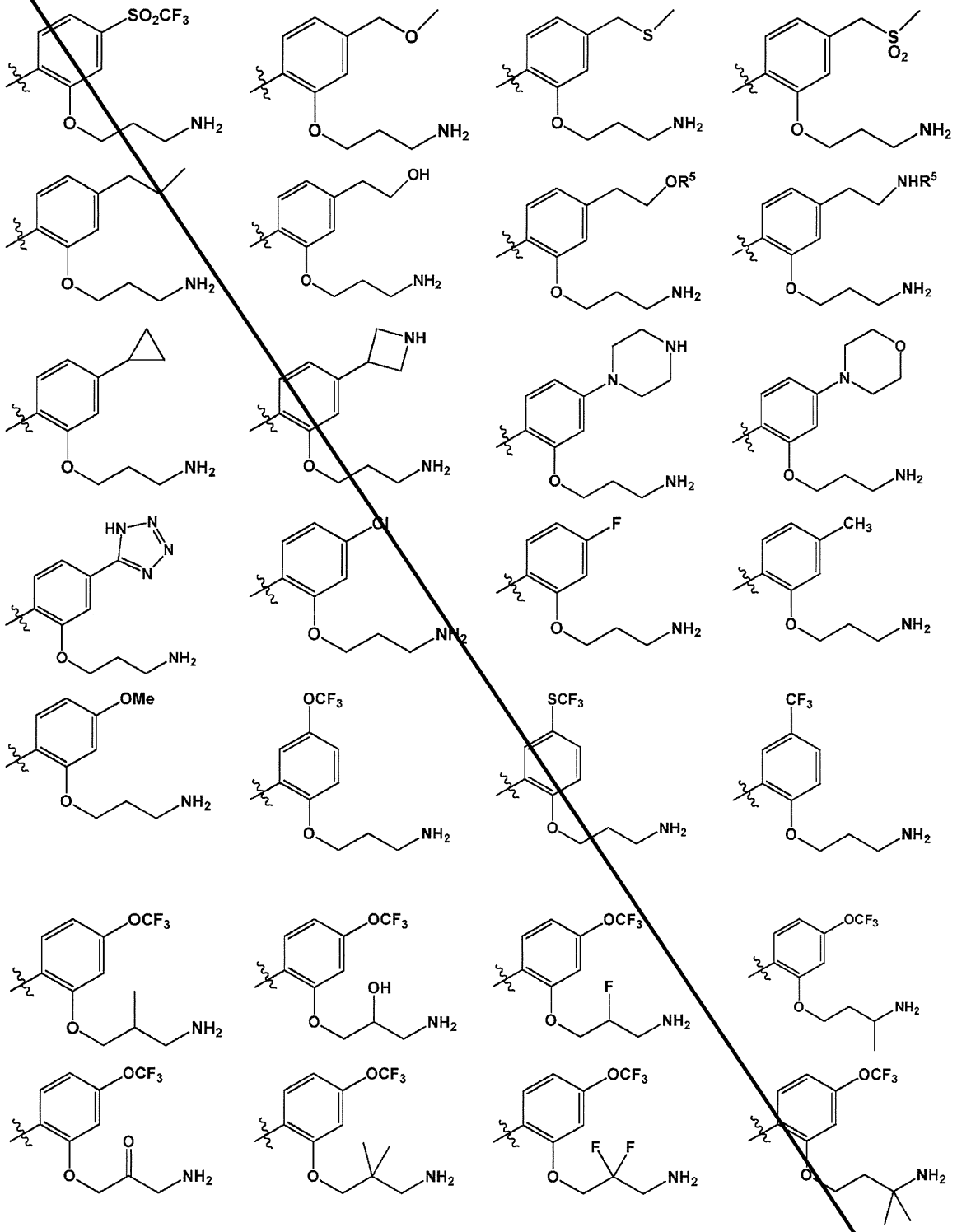
12. The compound according to Claim 11, wherein –G–H–J is selected from: hydrogen,

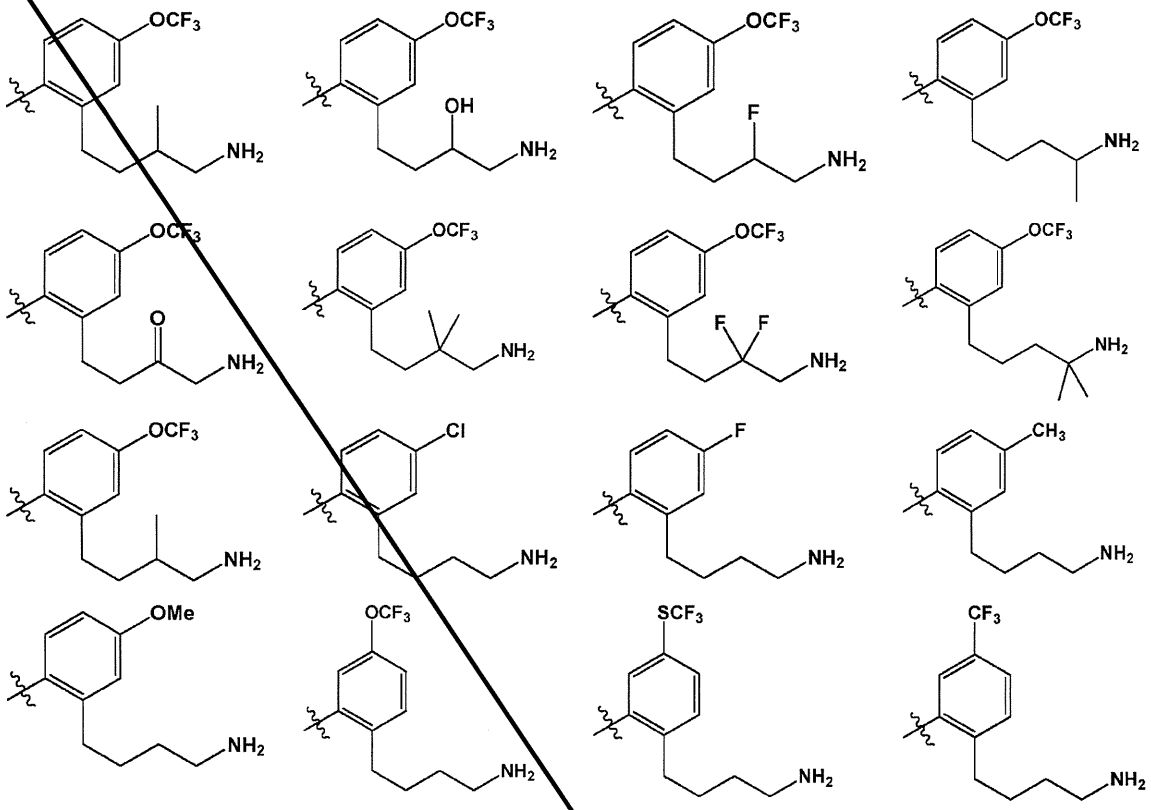


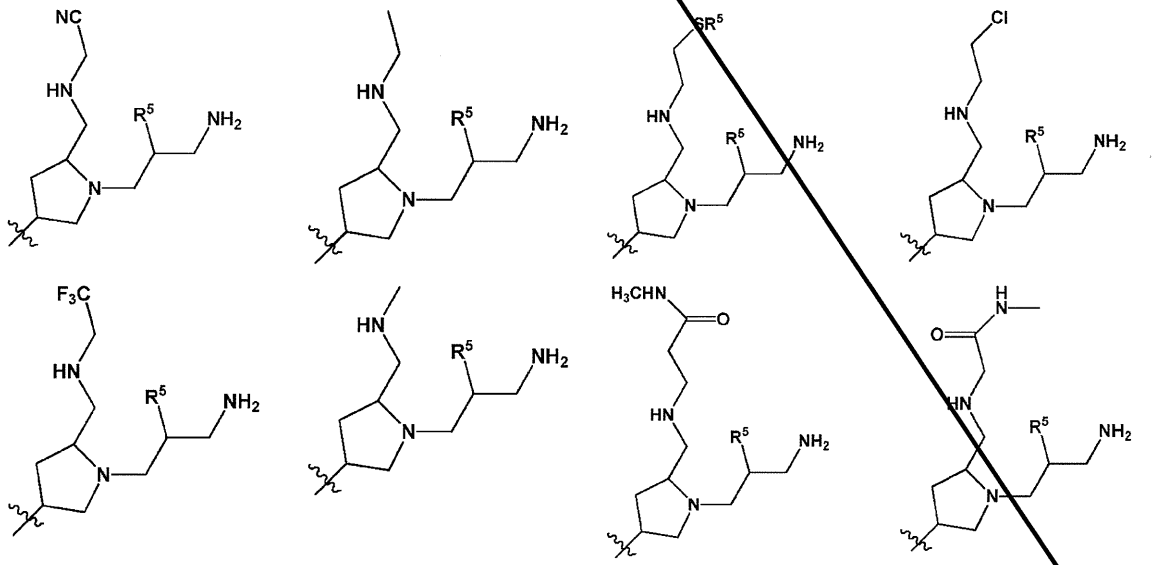
or a pharmaceutically acceptable salt, ester, tautomer, or prodrug thereof.

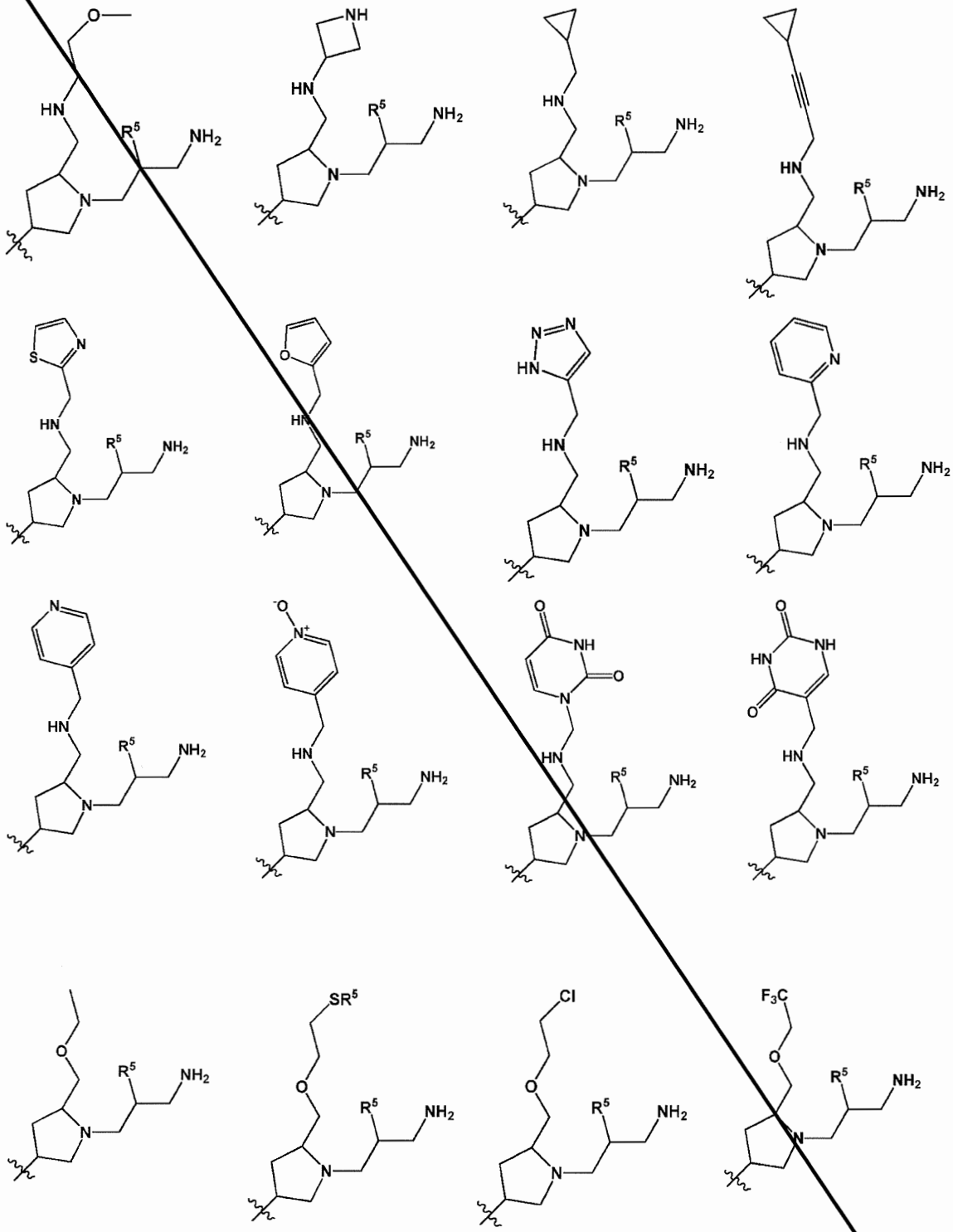
13. The compound according to Claim 12 wherein each –G–H–J is selected from: hydrogen,

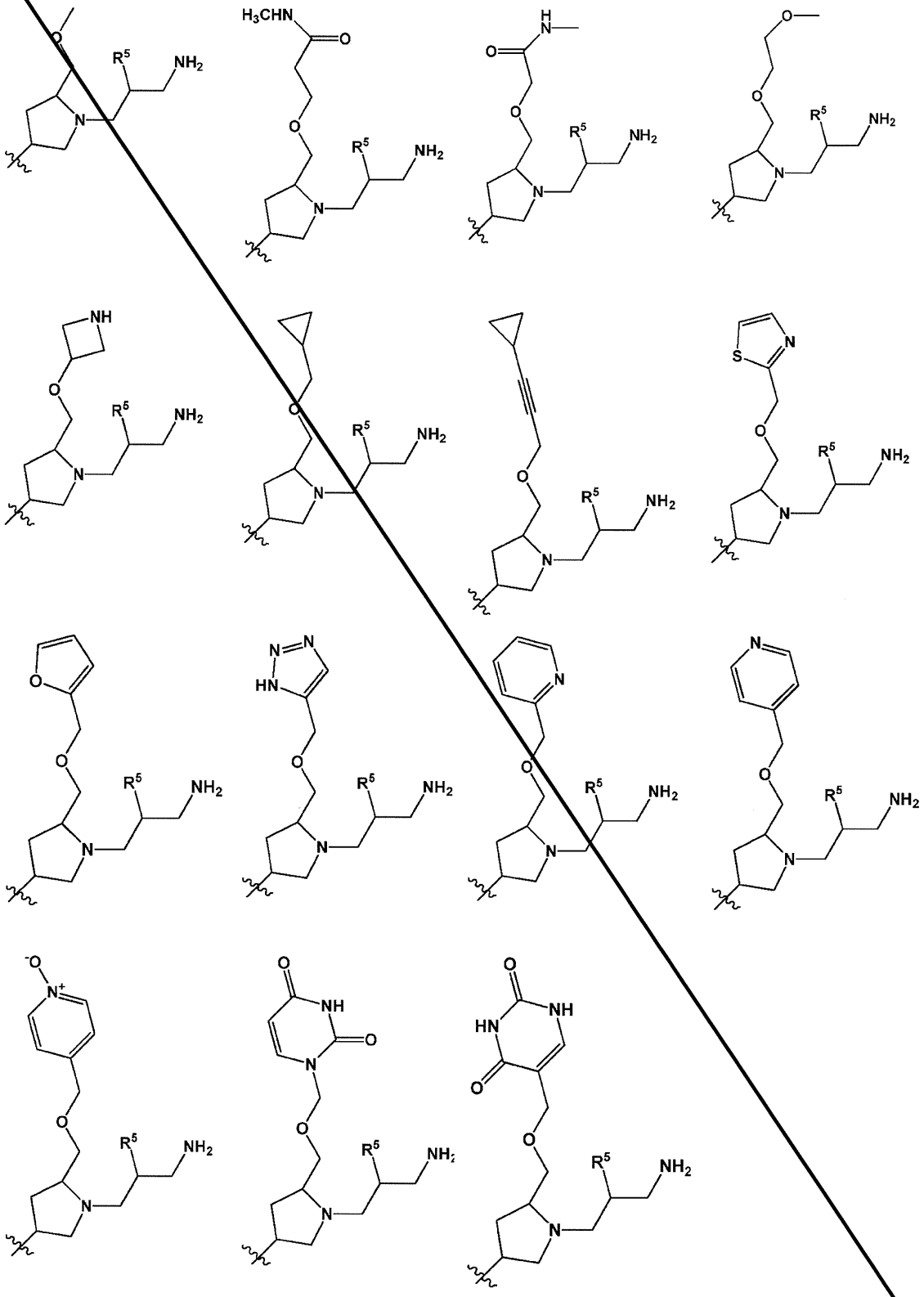



SO2CF3
O
S
S
O2
OH
OR5
NHR5
NH
N
O
HN
N
Cl
F
CH3
OMe
OCF3
SCF3
CF3
NH2


OCF3
NH2
OH
F
O
Cl
CH3
OMe
SCF3
CF3


NC
HN
R5
NH2
N
SR5
Cl
F3C
H3CHN
O





wherein R^5 is as defined in Claim 10,

or a pharmaceutically acceptable salt, ester, tautomer, or prodrug thereof.

14. The compound according to any of claims 1 to 13 that binds to a ribosome.

15. The compound according to claim 14, wherein the ribosome is a bacterial ribosome.

16. The compound according to any of the compounds in Table 1 or a pharmaceutically acceptable salt, ester, tautomer, or prodrug thereof.

17. The pharmaceutical composition comprising a compound according to any one of claims 1–16, or a pharmaceutically acceptable salt, ester, tautomer, or prodrug thereof, and a pharmaceutically acceptable carrier.

18. A method for treating, preventing or reducing the risk of a disease state in a human or animal comprising administering to a human or animal in need thereof an effective amount of a compound according to any one of claims 1–16, or a pharmaceutically acceptable salt, ester, tautomer, or prodrug thereof.

19. A method of treating a microbial infection in a human or animal comprising administering to the human or animal an effective amount of a compound according to any one of claims 1–16, or a pharmaceutically acceptable salt, ester, tautomer, or prodrug thereof.

20. The use of a compound according to any one of claims 1–16, or a pharmaceutically acceptable salt, ester, tautomer, or prodrug thereof, in the manufacture of a medicament for treating a microbial infection in a human or animal.

21. A method of treating or reducing the risk of a microbial infection in a human or animal comprising administering to the human or animal an effective amount of a compound according to any one of claims 1–16, or a pharmaceutically acceptable salt, ester, tautomer, or prodrug thereof, wherein the microbial infection is selected from the group consisting of:

a skin infection, a Gram positive infection, a Gram negative infection, nosocomial a skin infection, a Gram positive infection, a Gram negative infection, nosocomial pneumonia, community acquired pneumonia, post–viral pneumonia, hospital acquired pneumonia/ventilator associated pneumonia, a respiratory tract infection such as chronic respiratory tract infection (CRTI), acute pelvic infection, a complicated skin and skin structure infection, a skin and soft tissue infection (SSTI) including uncomplicated skin and soft tissue infections (uSSTI)s and complicated skin and soft tissue infections, an abdominal infection, a complicated intra-abdominal infection, a urinary tract infection, bacteremia, septicemia, endocarditis, an atrio–ventricular shunt infection, a vascular access infection, meningitis, surgical prophylaxis, a peritoneal infection, a bone infection, a joint infection, a methicillin–resistant *Staphylococcus aureus* infection, a vancomycin–resistant *Enterococci* infection, a linezolid–resistant organism infection, a *Bacillus anthracis* infection, a *Francisella tularensis* infection, a *Yersinia pestis* infection, and tuberculosis.

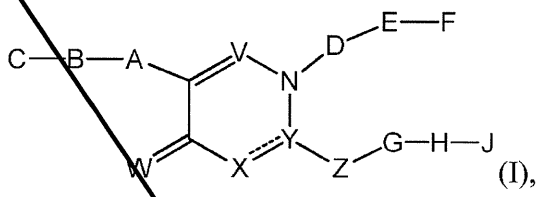
22. The method or use according to any one of claims 18–21 wherein the compound, or a pharmaceutically acceptable salt, ester, tautomer, or prodrug thereof, is administered otically, ophthalmically, nasally, orally, parenterally, topically, or intravenously.

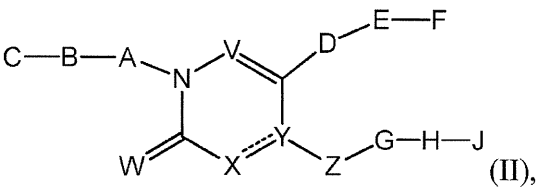
23. A method of synthesizing a compound according to any of claims 1–16, or a pharmaceutically acceptable salt, ester, tautomer, or prodrug thereof.

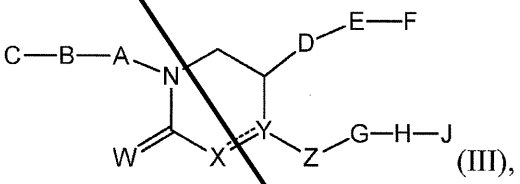
24. A medical device containing a compound according to any one of claims 1–16, or a pharmaceutically acceptable salt, ester, tautomer, or prodrug thereof.

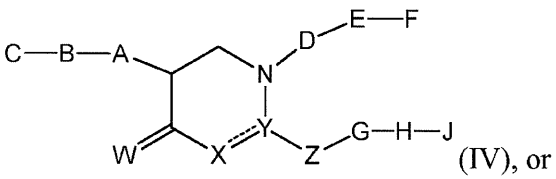
25. The medical device according to claim 24, wherein the device is a stent.

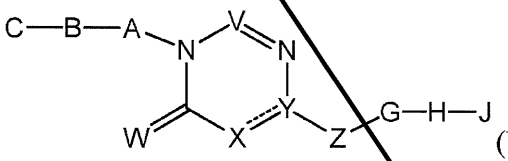
26. A compound having the formula:


(I),


(II),


(III),


(IV), or


(V),

wherein V is independently selected from $-CR^{4a}-$ or $-N-$,

W is O, NR^1, NOR^1, or S, alternatively W= is selected from the combination of HO– and H– both attached to the same carbon atom or the combination of (C_{1-8} alkyl)O– and H– both attached to the same carbon atom;

X ---- Y represents a single bond or a double bond such that when X ---- Y is a single bond, X is selected from O, NR^2, and $S(O)_n$ and Y is $C-R^3$, and when X ---- Y is a double bond, X is N and Y is a carbon atom,

Z is selected from the group consisting of O, NR^4, $S(O)_n$, NR^4CO, $CONR^4$, or NR^4CONR^4,

R^1 is selected from H and C_{1-8} alkyl,

R^2 is selected from H and C_{1-8} alkyl,

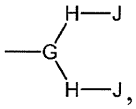
R^3 is selected from H and C_{1-8} alkyl,

R^4 is selected from H and C_{1-8} alkyl,

R^{4a} is selected from H and C_{1-8} alkyl,

n is 0, 1, or 2,

alternatively, –G–H–J is selected from



wherein each H and J are independently selected,

C–B–A–, –D–E–F, and –G–H–J are chemical moieties, wherein

A, D and G are independently selected from the group consisting of:

(a) a single bond, (b) –(C_{1-8} alkyl)– , (c) –(C_{2-8} alkenyl)–, (d) –(C_{2-8} alkynyl)–, wherein

i) 0–4 carbon atoms in any of (b)–(d) immediately above optionally is replaced by a moiety selected from the group consisting of –O–, –$S(O)_p$–, –NR^6–, –(C=O)–, –$S(O)_pNR^6$–, –$NR^6S(O)_p$–, and –$NR^6S(O)_pNR^6$–,

ii) any of (b)–(d) immediately above optionally is substituted with one or more R^5 groups, and

iii) any of (b)–(d) immediately above optionally is substituted with –(C_{1-8} alkyl)–R^5 groups;

(e) –O–, (f) –NR^6–, (g) –$S(O)_p$–, (h) –C(O)–, (i) –C(O)O–, (j) –OC(O)–, k) –OC(O)O–, (l) –C(O)NR^6–, (m) –NR^6CO–, (n) –NR^6C(O)NR^6–, (o) –C(=NR^6)–, (p) –C(=NR^6)O–, (q) –OC(=NR^6)–, (r) –C(=NR^6)NR^6–, (s) –NR^6C(=NR^6)–, (t) –C(=S)–, (u) –C(=S)NR^6–, (v) –NR^6C(=S)–, (w) –C(O)S–, (x) –SC(O)–, (y) –OC(=S)–, (z) –C(=S)O–, (aa) –NR^6(CNR^6)NR^6–, (bb) –CR^6R^6C(O)–, (cc) –C(O)NR^6(CR^6R^6)$_t$–, (dd) a 3–14 member saturated, unsaturated, or aromatic heterocycle containing one or more heteroatoms selected from the group consisting of nitrogen, oxygen, and sulfur, (ee) a 3–14 member saturated, unsaturated, or aromatic carbocycle, and (ff) –(CR^6R^6)$_t$–,

wherein (dd) or (ee) is optionally substituted with one or more R^5 groups;

B, E, and H are independently selected from the group consisting of:

(a) a single bond,

(b) a 3–14 member saturated, unsaturated, or aromatic heterocycle containing one or more heteroatoms selected from the group consisting of nitrogen, oxygen, and sulfur,

(c) a 3–14 member saturated, unsaturated, or aromatic carbocycle,

wherein (b) or (c) is optionally substituted with one or more R^5 groups;

(d) –(C_{1-8} alkyl)–, (e) –(C_{2-8} alkenyl)–, (f) –(C_{2-8} alkynyl)–, wherein

i) 0–4 carbon atoms in any of (d)–(f) immediately above optionally is replaced by a moiety selected from the group consisting of –O–, –$S(O)_p$–, –NR^6–, –(C=O)–, –C(=NR^6)–, –$S(O)_pNR^6$–, –$NR^6S(O)_p$–, and –$NR^6S(O)_pNR^6$–,

ii) any of (d)–(f) immediately above optionally is substituted with one or more R^5 groups, and

iii) any of (d)–(f) immediately above optionally is substituted with –(C_{1-8} alkyl)–R^5 groups;

and (g) –$(CR^6R^6)_t$–,

C, F, and J are independently selected from the group consisting of:

(a) hydrogen, (c) F, (d) Cl, (e) Br, (f) I, (g) –CF_3, (h) –CN, (i) –N_3 (j) –NO_2, (k) –$NR^6(CR^6R^6)_tR^8$, (l) –OR^8, (m) –$S(O)_p(CR^6R^6)_tR^8$, (n) –$C(O)(CR^6R^6)_tR^8$, (o) –$OC(O)(CR^6R^6)_tR^8$, (p) –$SC(O)(CR^6R^6)_tR^8$, (q) –$C(O)O(CR^6R^6)_tR^8$, (r) –$NR^6C(O)(CR^6R^6)_tR^8$, (s) –$C(O)NR^6(CR^6R^6)_tR^8$, (t) –$C(=NR^6)(CR^6R^6)_tR^8$, (u) –$C(=NNR^6R^6)(CR^6R^6)_tR^8$, (v) –$C(=NNR^6C(O)R^6)(CR^6R^6)_tR^8$, (w) –$C(=NOR^8)(CR^6R^6)_tR^8$, (x) –$NR^6C(O)O(CR^6R^6)_tR^8$, (y) –$OC(O)NR^6(CR^6R^6)_tR^8$, (z) –$NR^6C(O)NR^6(CR^6R^6)_tR^8$, (aa) –$NR^6S(O)_p(CR^6R^6)_tR^8$, (bb) –$S(O)_pNR^6(CR^6R^6)_tR^8$, (cc) –$NR^6S(O)_pNR^6(CR^6R^6)_tR^8$, (dd) –$NR^6R^8$, (ee) –$NR^6(CR^6R^6)R^8$, (ff) –OH, (gg) –$NR^8R^8$, (hh) –$OCH_3$, (ii) –$S(O)_pR^8$, (jj) –$NC(O)R^8$, (kk) –$NR^6C(NR^6)NR^6R^8$, (ll) a C_{1-8} alkyl group, (mm) a C_{2-8} alkenyl group, (nn) a C_{2-8}alkynyl group, (oo) a 3–14 member saturated, unsaturated, or aromatic heterocycle containing one or more heteroatoms selected from the group consisting of nitrogen, oxygen, and sulfur, (pp) a 3–14 member saturated, unsaturated, or aromatic carbocycle, (qq) –$(CR^6R^6)_tNR^6(CR^6R^6)_tR^8$, (rr) –$N[(CR^6R^6)_tR^8][C=O(CR^6R^6)_tR^8]$, (ss) –$(CR^6R^6)_tN[(CR^6R^6)_tR^8][(CR^6R^6)_tR^8]$, (tt) –$(CR^6R^6)_tNR^6(C=O)(CR^6R^6)_tR^8$, (uu) –haloalkyl, (vv) –$C(O)(CR^6)[(CR^6R^6)_tR^8]R^8$, (ww) –$(CR^6R^6)_tC(O)NR^8R^8$, (xx) –$(CR^6R^6)_tC(O)O(CR^6R^6)_tR^8$, (yy) –$NR^6C(O)CR^8R^8R^8$, (zz) –$N[(CR^6R^6)_tR^8]C(O)R^8$, and (aaa) –$S(O)_pNR^8R^8$;

wherein (ll) through (pp) is optionally substituted with one or more R^7 groups;

R^5 is selected from (a) hydrogen, (b) F, (c) Cl, (d) Br, (e) I, (f) –CF_3, (g) –CN, (h) –N_3, (i) –NO_2, (j) –NR^6R^6, (k) –OR^8, (l) –$NR^6(CNR^6)NR^6R^6$, (m) –C_{1-8} alkyl, (n) –C_{1-8} alkenyl, (o) –C_{1-8} alkynyl, (p) –(C_{1-8} alkyl)–(3–14 member saturated, unsaturated, or aromatic heterocycle

containing one or more heteroatoms selected from the group consisting of nitrogen, oxygen, and sulfur), (q) –(C_{1-8} alkyl)–(3–14 member saturated, unsaturated, or aromatic carbocycle), (r) –haloalkyl, (s) –SR^6, (t) –3–14 member saturated, unsaturated, or aromatic heterocycle containing one or more heteroatoms selected from the group consisting of nitrogen, oxygen, and sulfur, and (u) –3–14 member saturated, unsaturated, or aromatic carbocycle; alternatively, two R^5 groups are taken together to form a carbocycle,

wherein (m) through (r) and (t) through (u) is optionally substituted with one or more R^8;

R^6 is selected from (a) hydrogen, (b) –C_{1-8} alkyl or alternatively two R^6 groups are taken together to form a carbocycle, (c) –haloalkyl, (d) –3–14 member saturated, unsaturated, or aromatic heterocycle containing one or more heteroatoms selected from the group consisting of nitrogen, oxygen, and sulfur, and (e) –3–14 member saturated, unsaturated, or aromatic carbocycle;

wherein (b) through (e) is optionally substituted with one or more R^8;

R^7 is selected from (a) hydrogen, (b) F, (c) Cl, (d) Br, (e) I, (f) –CF_3, (g) –CN, (h) –N_3 (i) –NO_2, (j) –NR^6R^6, (k) –OR^6, (l) –$NR^6(CNR^6)NR^6R^6$, (m) –C_{1-8} alkyl, (n) –C_{1-8} alkenyl, (o) –C_{1-8} alkynyl, (p) –(C_{1-8} alkyl)–(3–14 member saturated, unsaturated, or aromatic heterocycle containing one or more heteroatoms selected from the group consisting of nitrogen, oxygen, and sulfur), (q) –(C_{1-8} alkyl)–(3–14 member saturated, unsaturated, or aromatic carbocycle), (r) –haloalkyl, (s) –NR^6R^8, (t) –OR^8, (u) –$(CR^6R^6)_tNR^6R^8$, (v) –$CR^6R^8R^8$, (w) –SR^6, (x) –3–14 member saturated, unsaturated, or aromatic heterocycle containing one or more heteroatoms selected from the group consisting of nitrogen, oxygen, and sulfur, (y) –3–14 member saturated, unsaturated, or aromatic carbocycle, (z) –$(CR^6R^6)_tC(O)NR^8R^8$, (aa) –$S(O)_pR^8$, (bb) –$NR^6C(O)NR^6R^6$, (cc) –$NR^6C(O)R^6$, and (dd) –$C(=NR^6)NR^6R^6$;

wherein (m) through (q) and (x) through (y) are optionally substituted with one or more R^9;

R^8 is selected from (a) hydrogen, (b) F, (c) Cl, (d) Br, (e) I, (f) –CF_3, (g) –CN, (h) –N_3 (i) –NO_2, (j) –NR^6R^9, (k) –OR^9, (l) –$NR^6(CNR^6)NR^6R^6$, (m) –C_{1-8} alkyl, (n) –C_{1-8} alkenyl, (o) –C_{1-8} alkynyl, (p) –(C_{1-8} alkyl)–(3–14 member saturated, unsaturated, or aromatic heterocycle containing one or more heteroatoms selected from the group consisting of nitrogen, oxygen,

and sulfur), (q) –(C_{1-8} alkyl)–(3–14 member saturated, unsaturated, or aromatic carbocycle), (r) –3–14 member saturated, unsaturated, or aromatic heterocycle containing one or more heteroatoms selected from the group consisting of nitrogen, oxygen, and sulfur, (s) –3–14 member saturated, unsaturated, or aromatic carbocycle, (t) –haloalkyl, (u) $-C(O)(CR^6R^6)_tR^9$, (v) $-SR^6$, (w) $-OC(O)(CR^6R^6)_tR^9$, (x) $-NR^6C(O)NR^6R^9$, (y)$-NR^6C(O)R^9$, (z) $-NR^6(CNR^9)(NR^6R^6)$, (aa) $-ONR^6(CNR^6)NR^6R^6$, (bb) $-C(=NR^9)NR^6R^6$, (cc) $-S(O)_pR^9$, (dd) $-(CR^6R^6)_tC(O)NR^6R^9$, (ee) $-(CR^6R^6)_tOR^9$, and (ff) $-(CR^6R^6)_tNR^6R^9$;

wherein (m) through (s) is optionally substituted with one or more R^9;

R^9 is selected from (a) hydrogen, (b) F, (c) Cl, (d) Br, (e) I, (f) $-CF_3$, (g) –CN, (h) $-N_3$ (i) $-NO_2$, (j) $-NR^6R^{10}$, (k) $-OR^6$, (l) $-NR^6(CNR^6)NR^6R^6$, (m) $-C(O)(CR^6R^6)_tNR^6R^6$, (n) $-C_{1-8}$ alkyl, (o) $-C_{1-8}$ alkenyl, (p) $-C_{1-8}$ alkynyl, (q) –3–14 member saturated, unsaturated, or aromatic heterocycle containing one or more heteroatoms selected from the group consisting of nitrogen, oxygen, and sulfur, (r) –3–14 member saturated, unsaturated, or aromatic carbocycle, (s) –haloalkyl, (t) $-(CR^6R^6)_tOR^6$, (u) $-O(CR^6R^6)_tNR^6R^{10}$, (v) $-C(O)R^6$, (w) $-SR^6$, (x) $-C(O)OR^{10}$, (y) $-S(O)_pR^6$, (z) –(C_{1-8} alkyl)–(3–14 member saturated, unsaturated, or aromatic heterocycle containing one or more heteroatoms selected from the group consisting of nitrogen, oxygen, and sulfur), (aa) –(C_{1-8} alkyl)–(3–14 member saturated, unsaturated, or aromatic carbocycle), (bb) $-O(CR^6R^6)_tOR^6$, (cc) $-C(=NR^6)NR^6R^6$, (dd) $-ONR^6R^6$, (ee) $-NR^6C(O)NR^6R^6$, (ff) $-O(CR^6R^6)_tOR^6$, (gg) $-NR^6C(O)R^6$, and (hh) $-(CR^6R^6)_tNR^6R^{10}$;

wherein (n) through (r) and (z) through (aa) is optionally substituted with one or more R^{10};

R^{10} is selected from (a) hydrogen, (b) F, (c) Cl, (d) Br, (e) I, (f) $-CF_3$, (g) –CN, (h) $-N_3$ (i) $-NO_2$, (j) $-NR^6R^6$, (k) $-OR^6$, (l) $-NR^6(CNR^6)NR^6R^6$, (m) $-C(O)(CR^6R^6)_tNR^6R^6$, (n) $-C_{1-8}$ alkyl, (o) $-C_{1-8}$ alkenyl, (p) $-C_{1-8}$ alkynyl, (q) –3–14 member saturated, unsaturated, or aromatic heterocycle containing one or more heteroatoms selected from the group consisting of nitrogen, oxygen, and sulfur, (r) –3–14 member saturated, unsaturated, or aromatic carbocycle, (s) –haloalkyl, (t) $-(CR^6R^6)_tOR^6$, (u) $-O(CR^6R^6)_tNR^6R^6$, (v) $-C(O)R^6$, (w) $-SR^6$, (x) $-C(O)OR^6$, (y) $-S(O)_pR^6$, (z) –(C_{1-8} alkyl)–(3–14 member saturated, unsaturated, or aromatic heterocycle containing one or more heteroatoms selected from the group consisting of nitrogen, oxygen, and sulfur), (aa) –(C_{1-8} alkyl)–(3–14 member saturated, unsaturated, or

aromatic carbocycle), (bb) $-O(CR^6R^6)_tOR^6$, (cc) $-C(=NR^6)NR^6R^6$, (dd) $-ONR^6R^6$, (ee) $-NR^6C(O)NR^6R^6$, (ff) $-O(CR^6R^6)_tOR^6$, (gg) $-NR^6C(O)R^6$, and (hh) $-(CR^6R^6)_tNR^6R^6$;

optionally, wherein either the group –D–E–F or the group –G–H–J is absent, but both –D–E–F and –G–H–J are not simultaneously absent;

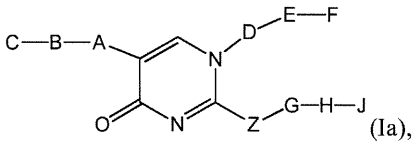
p is 0, 1, or 2, and

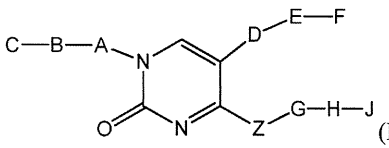
t is 0, 1, 2, or 3,

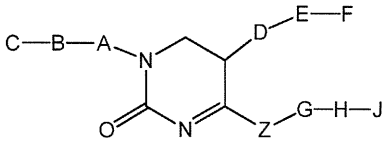
or a pharmaceutically acceptable salt, ester, tautomer, or prodrug thereof.

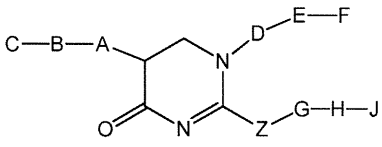
WHAT IS CLAIMED IS:

1. A medical device containing a compound having the formula:

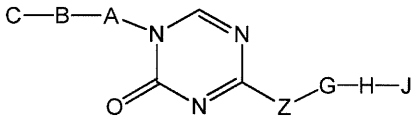

(Ia),


(IIa),


(IIIa),

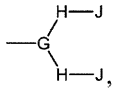

(IVa),

or


(Va)

wherein Z is selected from the group consisting of O, NR^4, $S(O)_n$, NR^4CO, $CONR^4$, or NR^4CONR^4,

wherein –G–H–J, alternatively, is selected from


,

wherein each H and J are independently selected,

C–B–A–, –D–E–F, and –G–H–J are chemical moieties, wherein

A, D and G are independently selected from the group consisting of:

(a) a single bond, (b) –(C_{1-8} alkyl)– , (c) –(C_{2-8} alkenyl)–, (d) –(C_{2-8} alkynyl)–, wherein

i) 0–4 carbon atoms in any of (b)–(d) immediately above optionally is replaced by a moiety selected from the group consisting of –O–, $-S(O)_p-$, $-NR^6-$, –(C=O)–, $-S(O)_pNR^6-$, $-NR^6S(O)_p-$, and $-NR^6S(O)_pNR^6-$,

ii) any of (b)–(d) immediately above optionally is substituted with one or more R^5 groups, and

iii) any of (b)–(d) immediately above optionally is substituted with –(C_{1-8} alkyl)–R^5 groups;

(e) –O–, (f) –NR^6–, (g) –$S(O)_p$–, (h) –C(O)–, (i) –C(O)O–, (j) –OC(O)–, k) –OC(O)O–, (l) –$C(O)NR^6$–, (m) –NR^6CO–, (n) –$NR^6C(O)NR^6$–, (o) –$C(=NR^6)$–, (p) –$C(=NR^6)O$–, (q) –$OC(=NR^6)$–, (r) –$C(=NR^6)NR^6$–, (s) –$NR^6C(=NR^6)$–, (t) –C(=S)–, (u) –$C(=S)NR^6$–, (v) –$NR^6C(=S)$–, (w) –C(O)S–, (x) –SC(O)–, (y) –OC(=S)–, (z) –C(=S)O–, (aa) –$NR^6(CNR^6)NR^6$–, (bb) –$CR^6R^6C(O)$–, (cc) –$C(O)NR^6(CR^6R^6)_t$–, (dd) a 3–14 member saturated, unsaturated, or aromatic heterocycle containing one or more heteroatoms selected from the group consisting of nitrogen, oxygen, and sulfur, (ee) a 3–14 member saturated, unsaturated, or aromatic carbocycle, and (ff) –$(CR^6R^6)_t$–,

wherein (dd) or (ee) is optionally substituted with one or more R^5 groups;

B, E, and H are independently selected from the group consisting of:

(a) a single bond,

(b) a 3–14 member saturated, unsaturated, or aromatic heterocycle containing one or more heteroatoms selected from the group consisting of nitrogen, oxygen, and sulfur,

(c) a 3–14 member saturated, unsaturated, or aromatic carbocycle,

wherein (b) or (c) is optionally substituted with one or more R^5 groups;

(d) –(C_{1-8} alkyl)–, (e) –(C_{2-8} alkenyl)–, (f) –(C_{2-8} alkynyl)–, wherein

i) 0–4 carbon atoms in any of (d)–(f) immediately above optionally is replaced by a moiety selected from the group consisting of –O–, –$S(O)_p$–, –NR^6–, –(C=O)–, –$C(=NR^6)$–, –$S(O)_pNR^6$–, –$NR^6S(O)_p$–, and –$NR^6S(O)_pNR^6$–,

ii) any of (d)–(f) immediately above optionally is substituted with one or more R^5 groups, and

iii) any of (d)–(f) immediately above optionally is substituted with –(C_{1-8} alkyl)–R^5 groups;

and (g) –$(CR^6R^6)_t$–,

C, F, and J are independently selected from the group consisting of:

(a) hydrogen, (c) F, (d) Cl, (e) Br, (f) I, (g) –CF_3, (h) –CN, (i) –N_3 (j) –NO_2, (k) –$NR^6(CR^6R^6)_tR^8$, (l) –OR^8, (m) –$S(O)_p(CR^6R^6)_tR^8$, (n) –$C(O)(CR^6R^6)_tR^8$, (o) –$OC(O)(CR^6R^6)_tR^8$, (p) –$SC(O)(CR^6R^6)_tR^8$, (q) –$C(O)O(CR^6R^6)_tR^8$, (r) –

$NR^6C(O)(CR^6R^6)_tR^8$, (s) $-C(O)NR^6(CR^6R^6)_tR^8$, (t) $-C(=NR^6)(CR^6R^6)_tR^8$, (u) $-C(=NNR^6R^6)(CR^6R^6)_tR^8$, (v) $-C(=NNR^6C(O)R^6)(CR^6R^6)_tR^8$, (w) $-C(=NOR^8)(CR^6R^6)_tR^8$, (x) $-NR^6C(O)O(CR^6R^6)_tR^8$, (y) $-OC(O)NR^6(CR^6R^6)_tR^8$, (z) $-NR^6C(O)NR^6(CR^6R^6)_tR^8$, (aa) $-NR^6S(O)_p(CR^6R^6)_tR^8$, (bb) $-S(O)_pNR^6(CR^6R^6)_tR^8$, (cc) $-NR^6S(O)_pNR^6(CR^6R^6)_tR^8$, (dd) $-NR^6R^8$, (ee) $-NR^6(CR^6R^6)R^8$, (ff) –OH, (gg) $-NR^8R^8$, (hh) $-OCH_3$, (ii) $-S(O)_pR^8$, (jj) $-NC(O)R^8$, (kk) $-NR^6C(NR^6)NR^6R^8$, (ll) a C_{1-8} alkyl group, (mm) a C_{2-8} alkenyl group, (nn) a C_{2-8}alkynyl group, (oo) a 3–14 member saturated, unsaturated, or aromatic heterocycle containing one or more heteroatoms selected from the group consisting of nitrogen, oxygen, and sulfur, (pp) a 3–14 member saturated, unsaturated, or aromatic carbocycle, (qq) $-(CR^6R^6)_tNR^6(CR^6R^6)_tR^8$, (rr) $-N[(CR^6R^6)_tR^8][C=O(CR^6R^6)_tR^8]$, (ss) $-(CR^6R^6)_tN[(CR^6R^6)_tR^8][(CR^6R^6)_tR^8]$, (tt) $-(CR^6R^6)_tNR^6(C=O)(CR^6R^6)_tR^8$, (uu) – haloalkyl, (vv) $-C(O)(CR^6)[(CR^6R^6)_tR^8]R^8$, (ww) $-(CR^6R^6)_tC(O)NR^8R^8$, (xx) $-(CR^6R^6)_tC(O)O(CR^6R^6)_tR^8$, (yy) $-NR^6C(O)CR^8R^8R^8$, (zz) $-N[(CR^6R^6)_tR^8]C(O)R^8$, and (aaa) $-S(O)_pNR^8R^8$;

wherein (ll) through (pp) is optionally substituted with one or more R^7 groups;

R^5 is selected from (a) hydrogen, (b) F, (c) Cl, (d) Br, (e) I, (f) $-CF_3$, (g) –CN, (h) $-N_3$ (i) $-NO_2$, (j) $-NR^6R^6$, (k) $-OR^8$, (l) $-NR^6(CNR^6)NR^6R^6$, (m) $-C_{1-8}$ alkyl, (n) $-C_{1-8}$ alkenyl, (o) $-C_{1-8}$ alkynyl, (p) $-(C_{1-8}$ alkyl)–(3–14 member saturated, unsaturated, or aromatic heterocycle containing one or more heteroatoms selected from the group consisting of nitrogen, oxygen, and sulfur), (q) $-(C_{1-8}$ alkyl)–(3–14 member saturated, unsaturated, or aromatic carbocycle), (r) –haloalkyl, (s) $-SR^6$, (t) –3–14 member saturated, unsaturated, or aromatic heterocycle containing one or more heteroatoms selected from the group consisting of nitrogen, oxygen, and sulfur, and (u) –3–14 member saturated, unsaturated, or aromatic carbocycle; alternatively, two R^5 groups are taken together to form a carbocycle,

wherein (m) through (r) and (t) through (u) is optionally substituted with one or more R^8;

R^6 is selected from (a) hydrogen, (b) $-C_{1-8}$ alkyl or alternatively two R^6 groups are taken together to form a carbocycle, (c) –haloalkyl, (d) –3–14 member saturated, unsaturated, or

aromatic heterocycle containing one or more heteroatoms selected from the group consisting of nitrogen, oxygen, and sulfur, and (e) –3–14 member saturated, unsaturated, or aromatic carbocycle;
wherein (b) through (e) is optionally substituted with one or more R^8;

R^7 is selected from (a) hydrogen, (b) F, (c) Cl, (d) Br, (e) I, (f) $-CF_3$, (g) –CN, (h) $-N_3$ (i) $-NO_2$, (j) $-NR^6R^6$, (k) $-OR^6$, (l) $-NR^6(CNR^6)NR^6R^6$, (m) $-C_{1-8}$ alkyl, (n) $-C_{1-8}$ alkenyl, (o) $-C_{1-8}$ alkynyl, (p) $-(C_{1-8}$ alkyl)–(3–14 member saturated, unsaturated, or aromatic heterocycle containing one or more heteroatoms selected from the group consisting of nitrogen, oxygen, and sulfur), (q) $-(C_{1-8}$ alkyl)–(3–14 member saturated, unsaturated, or aromatic carbocycle), (r) –haloalkyl, (s) $-NR^6R^8$, (t) $-OR^8$, (u) $-(CR^6R^6)_tNR^6R^8$, (v) $-CR^6R^8R^8$, (w) $-SR^6$, (x) –3–14 member saturated, unsaturated, or aromatic heterocycle containing one or more heteroatoms selected from the group consisting of nitrogen, oxygen, and sulfur, (y) –3–14 member saturated, unsaturated, or aromatic carbocycle, (z) $-(CR^6R^6)_tC(O)NR^8R^8$, (aa) $-S(O)_pR^8$, (bb) $-NR^6C(O)NR^6R^6$, (cc) $-NR^6C(O)R^6$, and (dd) $-C(=NR^6)NR^6R^6$;
wherein (m) through (q) and (x) through (y) are optionally substituted with one or more R^9;

R^8 is selected from (a) hydrogen, (b) F, (c) Cl, (d) Br, (e) I, (f) $-CF_3$, (g) –CN, (h) $-N_3$ (i) $-NO_2$, (j) $-NR^6R^9$, (k) $-OR^9$, (l) $-NR^6(CNR^6)NR^6R^6$, (m) $-C_{1-8}$ alkyl, (n) $-C_{1-8}$ alkenyl, (o) $-C_{1-8}$ alkynyl, (p) $-(C_{1-8}$ alkyl)–(3–14 member saturated, unsaturated, or aromatic heterocycle containing one or more heteroatoms selected from the group consisting of nitrogen, oxygen, and sulfur), (q) $-(C_{1-8}$ alkyl)–(3–14 member saturated, unsaturated, or aromatic carbocycle), (r) –3–14 member saturated, unsaturated, or aromatic heterocycle containing one or more heteroatoms selected from the group consisting of nitrogen, oxygen, and sulfur, (s) –3–14 member saturated, unsaturated, or aromatic carbocycle, (t) –haloalkyl, (u) $-C(O)(CR^6R^6)_tR^9$, (v) $-SR^6$, (w) $-OC(O)(CR^6R^6)_tR^9$, (x) $-NR^6C(O)NR^6R^9$, (y)$-NR^6C(O)R^9$, (z) $-NR^6(CNR^9)(NR^6R^6)$, (aa) $-ONR^6(CNR^6)NR^6R^6$, (bb) $-C(=NR^9)NR^6R^6$, (cc) $-S(O)_pR^9$, (dd) $-(CR^6R^6)_tC(O)NR^6R^9$, (ee) $-(CR^6R^6)_tOR^9$, and (ff) $-(CR^6R^6)_tNR^6R^9$;
wherein (m) through (s) is optionally substituted with one or more R^9;

R^9 is selected from (a) hydrogen, (b) F, (c) Cl, (d) Br, (e) I, (f) $-CF_3$, (g) –CN, (h) $-N_3$ (i) – NO_2, (j) $-NR^6R^{10}$, (k) $-OR^6$, (l) $-NR^6(CNR^6)NR^6R^6$, (m) $-C(O)(CR^6R^6)_tNR^6R^6$, (n) $-C_{1-8}$ alkyl, (o) $-C_{1-8}$ alkenyl, (p) $-C_{1-8}$ alkynyl, (q) –3–14 member saturated, unsaturated, or aromatic heterocycle containing one or more heteroatoms selected from the group consisting of nitrogen, oxygen, and sulfur, (r) –3–14 member saturated, unsaturated, or aromatic carbocycle, (s) –haloalkyl, (t) $-(CR^6R^6)_tOR^6$, (u) $-O(CR^6R^6)_tNR^6R^{10}$, (v) $-C(O)R^6$, (w) $-SR^6$, (x) $-C(O)OR^{10}$, (y) $-S(O)_pR^6$, (z) $-(C_{1-8}$ alkyl)–(3–14 member saturated, unsaturated, or aromatic heterocycle containing one or more heteroatoms selected from the group consisting of nitrogen, oxygen, and sulfur), (aa) $-(C_{1-8}$ alkyl)–(3–14 member saturated, unsaturated, or aromatic carbocycle), (bb) $-O(CR^6R^6)_tOR^6$, (cc) $-C(=NR^6)NR^6R^6$, (dd) $-ONR^6R^6$, (ee) – $NR^6C(O)NR^6R^6$, (ff) $-O(CR^6R^6)_tOR^6$, (gg) $-NR^6C(O)R^6$, and (hh) $-(CR^6R^6)_tNR^6R^{10}$;

wherein (n) through (r) and (z) through (aa) is optionally substituted with one or more R^{10};

R^{10} is selected from (a) hydrogen, (b) F, (c) Cl, (d) Br, (e) I, (f) $-CF_3$, (g) –CN, (h) $-N_3$ (i) – NO_2, (j) $-NR^6R^6$, (k) $-OR^6$, (l) $-NR^6(CNR^6)NR^6R^6$, (m) $-C(O)(CR^6R^6)_tNR^6R^6$, (n) $-C_{1-8}$ alkyl, (o) $-C_{1-8}$ alkenyl, (p) $-C_{1-8}$ alkynyl, (q) –3–14 member saturated, unsaturated, or aromatic heterocycle containing one or more heteroatoms selected from the group consisting of nitrogen, oxygen, and sulfur, (r) –3–14 member saturated, unsaturated, or aromatic carbocycle, (s) –haloalkyl, (t) $-(CR^6R^6)_tOR^6$, (u) $-O(CR^6R^6)_tNR^6R^6$, (v) $-C(O)R^6$, (w) $-SR^6$, (x) $-C(O)OR^6$, (y) $-S(O)_pR^6$, (z) $-(C_{1-8}$ alkyl)–(3–14 member saturated, unsaturated, or aromatic heterocycle containing one or more heteroatoms selected from the group consisting of nitrogen, oxygen, and sulfur), (aa) $-(C_{1-8}$ alkyl)–(3–14 member saturated, unsaturated, or aromatic carbocycle), (bb) $-O(CR^6R^6)_tOR^6$, (cc) $-C(=NR^6)NR^6R^6$, (dd) $-ONR^6R^6$, (ee) – $NR^6C(O)NR^6R^6$, (ff) $-O(CR^6R^6)_tOR^6$, (gg) $-NR^6C(O)R^6$, and (hh) $-(CR^6R^6)_tNR^6R^6$;

optionally, wherein either –D–E–F or –G–H–J is hydrogen;

p is 0, 1, or 2, and

t is 0, 1, 2, or 3,

or a pharmaceutically acceptable salt, ester, tautomer or prodrug thereof.