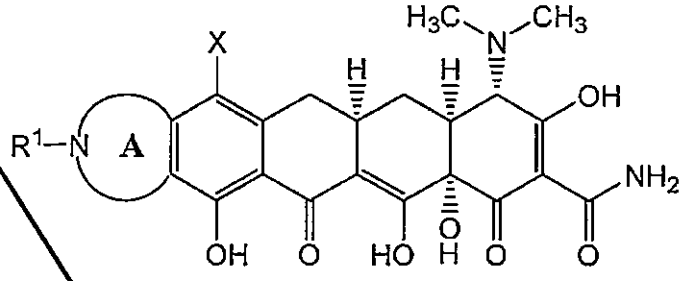
CLAIMS

What is claimed is:

1. A compound of Structural Formula I:



(I);

or a pharmaceutically acceptable salt thereof, wherein:

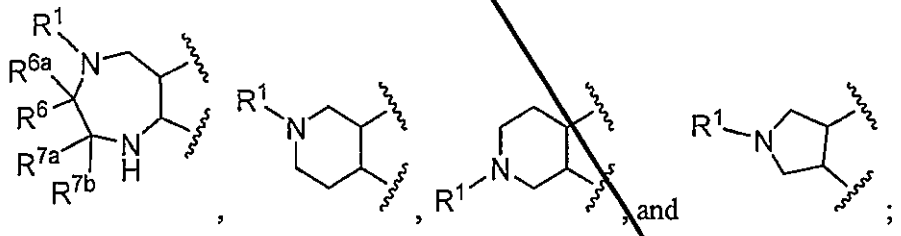
X is selected from halo, -R, -OR, -SR, $-S(O)_mR$, $-N(R)_2$, -N(R)C(O)R, N(R)C(O)OR', and $N(R)S(O)_mR'$, wherein:

each R is independently selected from H, $(C_1\text{-}C_6)$alkyl, carbocyclyl, or heterocyclyl; or

two R groups taken together with the atom or atoms to which they are bound form a 4-7 membered non-aromatic heterocyclyl; and

R' is $(C_1\text{-}C_6)$alkyl, carbocyclyl, or heterocyclyl;

ring A is selected from:



;

R^1 is selected from hydrogen, $-(C_1\text{-}C_8)$alkyl, $-(C_0\text{-}C_6)$alkylene-carbocyclyl, $-(C_0\text{-}C_6)$alkylene-heterocyclyl, $-(C_1\text{-}C_6)$alkylene-O-$(C_1\text{-}C_6)$alkyl, $-(C_2\text{-}C_6)$alkylene-O-carbocyclyl, $-(C_2\text{-}C_6)$alkylene-O-heterocyclyl, $-S(O)_m$-$(C_1\text{-}C_6)$alkyl, $-S(O)_m$-carbocyclyl, $-S(O)_m$-heterocyclyl, $-(C_2\text{-}C_4)$alkylene-$S(O)_m$-carbocyclyl, $-(C_2\text{-}C_4)$alkylene-$S(O)_m$-heterocyclyl, $-C(O)\text{-}[C(R^4)(R^4)]_{0\text{-}4}\text{-}N(R^2)(R^3)$, -C(O)-$(C_1\text{-}C_6)$alkyl, -C(O)-heterocyclyl, -C(O)-carbocyclyl,

$-S(O)_m-[C(R^4)(R^4)]_{0-4}-N(R^2)(R^3)$, and $-S(O)_m-(C_1-C_4)$alkylene-carbocyclyl, $-S(O)_m-(C_1-C_4)$alkylene-heterocyclyl;

R^{6a} is selected from hydrogen and methyl; and

R^6 is selected from hydrogen, (C_1-C_4)alkyl optionally substituted with hydroxy or phenyl; or

R^6 taken together with R^1 and the nitrogen atom and the carbon atom to which they are respectively bound form a pyrrolidinyl or piperidinyl ring fused to ring A, wherein the pyrrolidinyl or piperidinyl ring is optionally substituted with -OH or -F; or

R^6 and R^{6a} are taken together with the carbon atom to which they are both bound to form a cyclopropyl ring; and

R^{7a} and R^{7b} are each hydrogen or are taken together to form =O

each of R^2 and R^3 is independently selected from hydrogen, (C_1-C_8)alkyl, $-(C_0-C_6)$ alkylene-carbocyclyl, $-(C_0-C_6)$alkylene-heterocyclyl, $-(C_2-C_6)$alkylene-O-carbocyclyl, $-(C_2-C_6)$alkylene-O-heterocyclyl, $-S(O)_m-(C_1-C_6)$alkyl, $-S(O)_m$-carbocyclyl, $-S(O)_m$-heterocyclyl, $-(C_2-C_4)$alkylene-$S(O)_m$-carbocyclyl, and $-(C_2-C_4)$alkylene-$S(O)_m$-heterocyclyl; or

R^2 and R^3, taken together with the nitrogen atom to which they are bound form a heterocyclyl, wherein the heterocyclyl optionally comprises 1 to 4 additional heteroatoms independently selected from N, S and O;

each R^4 is independently selected from hydrogen, (C_1-C_6)alkyl, carbocyclyl, heterocyclyl or a naturally occurring amino acid side chain moiety, or

two R^4 taken together with a common carbon atom to which they are bound form a 3-7 membered non-aromatic carbocyclyl or a 4-7 membered non-aromatic heterocyclyl, wherein the heterocyclyl formed by two R^4 comprises one to three heteroatoms independently selected from N, S and O;

any substitutable carbon atom on ring A is optionally:

(i) substituted with one to two substituents independently selected from $-(C_1-C_4)$alkyl, and $-(C_0-C_4)$alkylene-carbocyclyl; or

(ii) substituted with =O;

(iii) taken together with an adjacent ring atom to form a 3-7 membered saturated carbocyclyl or a 4-7 membered saturated heterocyclyl ring; or

(iv) spirofused to a 3-7 membered saturated carbocyclyl;

any additional N heteroatom on ring A is substituted with hydrogen, (C_1-C_6) alkyl, carbocyclyl, or heterocyclyl;

each alkyl or alkylene in Structural Formula I is optionally and independently substituted with one or more substituents independently selected from halo, -OH, =O, -O-(C_1-C_4)alkyl, fluoro-substituted-(C_1-C_4)alkyl, -S(O)$_m$-(C_1-C_4)alkyl and -N(R^5)(R^5);

each carbocyclyl or heterocyclyl portion of a substituent of ring A or the saturated heterocyclic ring fused to ring A is optionally and independently substituted with one or more substituents independently selected from halo, -(C_1-C_4)alkyl, -OH, =O, -O-(C_1-C_4)alkyl, -(C_1-C_4)alkylene-O-(C_1-C_4)alkyl, halo-substituted-(C_1-C_4)alkyl, halo-substituted-O-(C_1-C_4)alkyl, -C(O)-(C_1-C_4)alkyl, -C(O)-(fluoro-substituted-(C_1-C_4)alkyl), -S(O)$_m$-(C_1-C_4)alkyl, -N(R^5)(R^5) and CN;

each R^5 is independently selected from hydrogen and (C_1-C_4)alkyl, wherein each alkyl in the group represented by R^5 is optionally and independently substituted with one or more substituents independently selected from -(C_1-C_4)alkyl, (C_3-C_6)cycloalkyl, halo, -OH, -O-(C_1-C_4)alkyl, and -(C_1-C_4)alkylene-O-(C_1-C_4)alkyl; and

each m is independently 1 or 2,

with the proviso that when X is hydrogen, ring A is not an unsubstituted bivalent piperidine radical.

2. The compound of Claim 1, wherein:

X is selected from halo, -R', -OR, -SR, -S(O)$_m$R, -N(R)$_2$, -N(R)C(O)R, N(R)C(O)OR', and N(R)S(O)$_m$R';

X is selected from fluoro, chloro, hydrogen, methoxy, methyl, trifluoromethyl, trifluoromethoxy and dimethylamino; or

X is selected from fluoro, chloro, methoxy, methyl, trifluoromethyl, trifluoromethoxy and dimethylamino.

3. The compound of any one of claims 1-2, wherein R^1 is selected from hydrogen, -(C_1-C_8)alkyl, -(C_2-C_4)alkylene-O-(C_1-C_4)alkyl, -(C_0-C_3)alkylene-(saturated heterocycle), -(C_0-C_3)alkylene-(C_3-C_7)cycloalkyl, -C(O)-(C_1-C_3)alkylene-N(R^2)(R^3); wherein:

any alkyl or alkylene portion of R^1 is optionally substituted with fluoro or hydroxy;

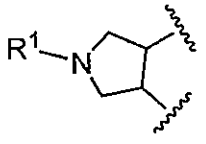
R^2 is selected from hydrogen and $(C_1$-$C_3)$alkyl;

R^3 is selected from $(C_1$-$C_3)$alkyl and $(C_3$-$C_7)$cycloalkyl, or

R^2 and R^3, taken together with the nitrogen atom to which they are bound form a 4-7 membered saturated heterocyclyl, wherein the heterocyclyl is optionally substituted with fluoro.

4. The compound of claim 3, wherein R^1 is selected from hydrogen; $(C_1$-$C_3)$straight alkyl optionally substituted with one or more of: 1 to 5 methyl groups, a single hydroxy group, a single methoxy group, 1 to 3 fluoro groups, a single saturated heterocycle, and a single $(C_3$-$C_7)$cycloalkyl group; $(C_3$-$C_7)$cycloalkyl; tetrahydrofuranyl; and -C(O)-CH_2-N(R^2)(R^3), wherein R^2 and R^3 are simultaneously methyl; R^2 is hydrogen and R^3 is C_3-C_7 cycloalkyl; or R^2 and R^3, taken together with the nitrogen atom to which they are bound form a pyrrolidinyl ring optionally substituted with fluoro.

5. The compound of claim 1, wherein:

ring A is ;

X is selected from fluoro, chloro, methoxy, trifluoromethyl, and dimethylamino; and

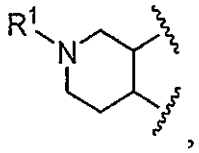
R^1 is selected from ethyl, propyl, $(C_3$-$C_5)$branched alkyl, $(C_3$-$C_5)$cycloalkyl, $(C_1$-$C_3)$alkylene-cyclopropyl, -C(O)CH_2NH-cyclopentyl, and -C(O)CH_2-pyrrolidin-1-yl, wherein R^1 is optionally substituted with fluoro;

optionally wherein:

X is selected from fluoro, chloro, methoxy, trifluoromethyl, and dimethylamino; and

R^1 is selected from 3-fluoroethyl, propyl, isopropyl, sec-butyl, tert-butyl, $(C_3$-$C_5)$cycloalkyl, -C(CH_3)$_2$-cyclopropyl, -C(O)CH_2NH-cyclopentyl, -C(O)CH_2-(3-fluoropyrrolidin-1-yl); and when X is methoxy or dimethylamino, R^1 is further selected from tert-pentyl.

6. The compound of claim 1, wherein:

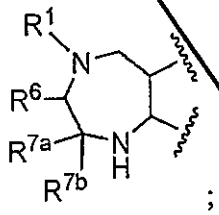
ring A is ,

X is fluoro; and

R^1 is selected from hydrogen, $(C_1\text{-}C_4)$alkyl;

optionally wherein R^1 is selected from isopropyl, propyl or ethyl.

7. The compound of claim 1, wherein:

ring A is ;

X is fluoro;

R^1 is selected from hydrogen, $(C_1\text{-}C_4)$alkyl;

R^6 is selected from hydrogen, (*R*)-$(C_1\text{-}C_4)$alkyl, or -CH_2-phenyl, or

R^1 and R^6 taken together with the nitrogen atom and the carbon atom to which they are respectively bound form a pyrrolidinyl ring fused to ring A;

R^{7a} and R^{7b} are each hydrogen or are taken together to form =O;

wherein at least one of R^1, and R^6 is other than hydrogen;

optionally wherein:

R^1 is selected from hydrogen, methyl, isobutyl, and tert-butyl; and

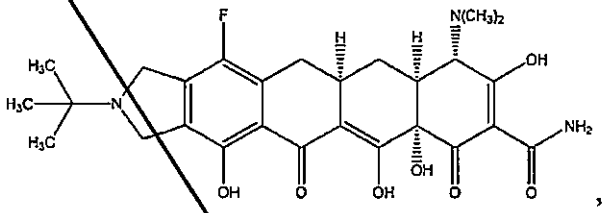
R^6 is selected from hydrogen, (*R*)-methyl, (*R*)-isobutyl, (*R*)-sec-butyl, (*R*)-isopropyl, and -CH_2-phenyl, or

R^1 and R^6 taken together with the nitrogen atom and the carbon atom to which they are respectively bound form a pyrrolidinyl ring fused to ring A.

8. The compound of Claim 1, wherein the compound is selected from any one of Compounds 100, 103, 110, 112, 113, 114, 115, 118, 119, 120, 121, 123, 124, 125, 126,

127, 128, 129, 130, 132, 135, 138, 141, 142, 143, 144, 145, 148, 149, 300, 304, 307, 400, 404, 405, 406, 407, 408, 409, 410, 412, 413, 416, 417, 419, 421, 422, 423, 424, 427, 428, and 429, or a pharmaceutically acceptable salt of any of the foregoing; or

the compound of Claim 1, represented by structural formula:



or a pharmaceutically acceptable salt thereof.

9. A pharmaceutical composition comprising a pharmaceutically acceptable carrier or diluent and a compound of any one of Claims 1-8.

10. The compound of any one of Claims 1-8 or a pharmaceutically acceptable salt thereof for use in treating or preventing an infection or colonization in a subject.

11. The compound for use according to Claim 10, wherein the infection is caused by:

a) an organism that grows intracellularly as part of its infection process; or

b) a Gram-positive organism, such as a Gram-positive organism selected from the class Bacilli, phylum Actinobacteria, *and* class Clostridia; or

c) a Gram-negative organism, such as a Gram-negative organism selected from the group consisting of *Enterobactericeae, Bacteroidetes, Vibrionaceae, Pasteurellaceae, Pseudomonadaceae, Neisseriaceae, Rickettsiae, Moraxellaceae* any species of *Proteeae, Acinetobacter* spp., *Helicobacter* spp., and *Campylobacter* spp.

12. The compound for use according to Claim 11, wherein the infection is caused by:

a) a Bacilli organism selected from *Staphylococcus* spp., *Streptococcus* spp., *Enterococcus* spp., *Bacillus* spp., and *Listeria* spp.; or

b) an Actinobacteria organism selected from *Propionibacterium* spp., *Corynebacterium* spp., *Nocardia* spp., *and Actinobacteria spp.*; or

c) a Clostridia organism selected from *Clostridium* spp.

13. The compound for use according to Claim 10, wherein the infection is caused by an organism selected from order Rickettsiales and order Chlamydiales, or by an organism selected from the phylum Chlamydiae and phylum Spriochaetales;
optionally wherein the phylum Spriochaetales organism is by an organism selected from *Borrelia* spp. and *Treponema* spp.

14. The compound for use according to Claim 10, wherein the infection is caused by an organism selected from the class Mollicutes, such as a Mollicutes organism selected from *Mycoplasma* spp.;
optionally wherein *Mycoplasma* spp. is *Mycoplasma pneumonia*.

15. The compound for use according to Claim 10, wherein the infection is caused by an organism selected from *Legionella* spp. and *Mycobacterium* spp., such as a *Mycobacterium* spp organism selected from *Mycobacterium tuberculosis*.

16. The compound for use according to Claim 10, wherein the infection is caused by:

a) more than one organism; or

b) an organism resistant to one or more antibiotics; or

c) an organism resistant to tetracycline or any member of first and second generation of tetracycline antibiotics; or

d) an organism resistant to methicillin or any antibiotic in the β-lactam class, including second, third and fourth-generation cephalosporins; or

e) an organism resistant to a quinolone or fluoroquinolone; or

f) an organism resistant to tigecycline; or

g) an organism resistant to tetracycline; or

h) an organism resistant to methicillin; or

i) an organism resistant to vancomycin; or

j) an organism resistant to an antimicrobial peptide or a biosimilar therapeutic treatment.

17. The compound for use according to Claim 11, wherein the Gram-positive organism is selected from S. *aureus,* CoNS, S. *pneumoniae,* S. *pyogenes,* S. *agalactiae, E. faecalis* and *E. faecium;*
optionally wherein the Gram-negative organism is selected from *H. influenza, M. catarrhalis* and *Legionella pneumophila.*

18. The compound of any one of Claims 1-8 or a pharmaceutically acceptable salt thereof or the pharmaceutical composition of Claim 9 for use in treating or preventing a respiratory infection in a subject;

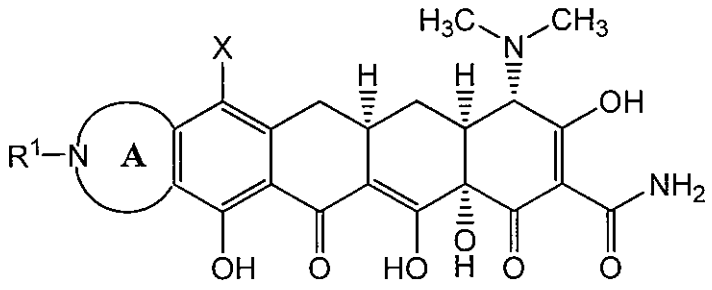
optionally wherein the respiratory infection is Community-Acquired Bacterial Pneumonia (CABP), such as a respiratory infection caused by a bacterium selected from S. *aureus,* S. *pneumoniae,* S. *pyogenes, H. influenza, M. catarrhalis* and *Legionella pneumophila; or*

the compound of any one of Claims 1-8 or a pharmaceutically acceptable salt thereof or the pharmaceutical composition of Claim 9 for use in treating or preventing a skin infection in a subject;

optionally wherein the skin infection is an acute bacterial skin and skin structure infection (ABSSSI), such as a skin infection caused by a bacterium selected from S. *aureus,* CoNS, S. *pyogenes,* S. *agalactiae, E. faecalis* and *E. faecium.*

CLAIMS

1. A compound of Structural Formula I:



(I);

or a pharmaceutically acceptable salt thereof, wherein:

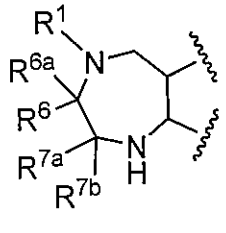
X is selected from halo, -R, -OR, -SR, $-S(O)_mR$, $-N(R)_2$, -N(R)C(O)R, N(R)C(O)OR', and $N(R)S(O)_mR'$, wherein:

each R is independently selected from H, $(C_1\text{-}C_6)$alkyl, carbocyclyl, or heterocyclyl; or

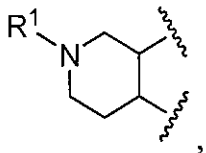
two R groups taken together with the atom or atoms to which they are bound form a 4-7 membered non-aromatic heterocyclyl; and

R' is $(C_1\text{-}C_6)$alkyl, carbocyclyl, or heterocyclyl;

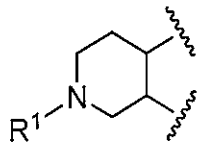
ring A is selected from:



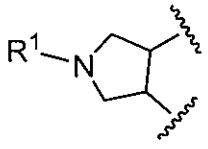
,



,



, and



;

R^1 is selected from hydrogen, -$(C_1\text{-}C_8)$alkyl, -$(C_0\text{-}C_6)$alkylene-carbocyclyl, -$(C_0\text{-}C_6)$alkylene-heterocyclyl, -$(C_1\text{-}C_6)$alkylene-O-$(C_1\text{-}C_6)$alkyl, -$(C_2\text{-}C_6)$alkylene-O-carbocyclyl, -$(C_2\text{-}C_6)$alkylene-O-heterocyclyl, -$S(O)_m$-$(C_1\text{-}C_6)$alkyl, -$S(O)_m$-carbocyclyl, -$S(O)_m$-heterocyclyl, -$(C_2\text{-}C_4)$alkylene-$S(O)_m$-carbocyclyl, -$(C_2\text{-}C_4)$alkylene-$S(O)_m$-heterocyclyl, -C(O)-$[C(R^4)(R^4)]_{0\text{-}4}$-$N(R^2)(R^3)$, -C(O)-$(C_1\text{-}C_6)$alkyl, -C(O)-heterocyclyl, -C(O)-carbocyclyl, -$S(O)_m$-$[C(R^4)(R^4)]_{0\text{-}4}$-$N(R^2)(R^3)$, and -$S(O)_m$-$(C_1\text{-}C_4)$alkylene-carbocyclyl, -$S(O)_m$-$(C_1\text{-}C_4)$alkylene-heterocyclyl; or

R^1 taken together with a ring atom adjacent to the nitrogen atom to which R^1 is bound forms a saturated heterocyclic ring fused to ring A;

R^{6a} is selected from hydrogen and methyl; and

R^6 is selected from hydrogen, $(C_1$-$C_4)$alkyl optionally substituted with hydroxy or phenyl; or

R^6 taken together with R^1 and the nitrogen atom and the carbon atom to which they are respectively bound form a pyrrolidinyl or piperidinyl ring fused to ring A, wherein the pyrrolidinyl or piperidinyl ring is optionally substituted with -OH or -F; or

R^6 and R^{6a} are taken together with the carbon atom to which they are both bound to form a cyclopropyl ring; and

R^{7a} and R^{7b} are each hydrogen or are taken together to form =O

each of R^2 and R^3 is independently selected from hydrogen, $(C_1$-$C_8)$alkyl, -$(C_0$-$C_6)$ alkylene-carbocyclyl, -$(C_0$-$C_6)$alkylene-heterocyclyl, -$(C_2$-$C_6)$alkylene-O-carbocyclyl, -$(C_2$-$C_6)$alkylene-O-heterocyclyl, -$S(O)_m$-$(C_1$-$C_6)$alkyl, -$S(O)_m$-carbocyclyl, -$S(O)_m$-heterocyclyl, -$(C_2$-$C_4)$alkylene-$S(O)_m$-carbocyclyl, and -$(C_2$-$C_4)$alkylene-$S(O)_m$-heterocyclyl; or

R^2 and R^3, taken together with the nitrogen atom to which they are bound form a heterocyclyl, wherein the heterocyclyl optionally comprises 1 to 4 additional heteroatoms independently selected from N, S and O;

each R^4 is independently selected from hydrogen, $(C_1$-$C_6)$alkyl, carbocyclyl, heterocyclyl or a naturally occurring amino acid side chain moiety, or

two R^4 taken together with a common carbon atom to which they are bound form a 3-7 membered non-aromatic carbocyclyl or a 4-7 membered non-aromatic heterocyclyl, wherein the heterocyclyl formed by two R^4 comprises one to three heteroatoms independently selected from N, S and O;

any substitutable carbon atom on ring A is optionally:

(i) substituted with one to two substituents independently selected from -$(C_1$-$C_4)$alkyl, and -$(C_0$-$C_4)$alkylene-carbocyclyl; or

(ii) substituted with =O;

(iii) taken together with an adjacent ring atom to form a 3-7 membered saturated carbocyclyl or a 4-7 membered saturated heterocyclyl ring; or

(iv) spirofused to a 3-7 membered saturated carbocyclyl;

any additional N heteroatom on ring A is substituted with hydrogen, $(C_1$-$C_6)$ alkyl, carbocyclyl, or heterocyclyl;

each alkyl or alkylene in Structural Formula I is optionally and independently substituted with one or more substituents independently selected from halo, -OH, =O, -O-(C_1-C_4)alkyl, fluoro-substituted-(C_1-C_4)alkyl, -S(O)$_m$-(C_1-C_4)alkyl and -N(R^5)(R^5);

each carbocyclyl or heterocyclyl portion of a substituent of ring A or the saturated heterocyclic ring fused to ring A is optionally and independently substituted with one or more substituents independently selected from halo, -(C_1-C_4)alkyl, -OH, =O, -O-(C_1-C_4)alkyl, -(C_1-C_4)alkylene-O-(C_1-C_4)alkyl, halo-substituted-(C_1-C_4)alkyl, halo-substituted-O-(C_1-C_4)alkyl, -C(O)-(C_1-C_4)alkyl, -C(O)-(fluoro-substituted-(C_1-C_4)alkyl), -S(O)$_m$-(C_1-C_4)alkyl, -N(R^5)(R^5) and CN;

each R^5 is independently selected from hydrogen and (C_1-C_4)alkyl, wherein each alkyl in the group represented by R^5 is optionally and independently substituted with one or more substituents independently selected from -(C_1-C_4)alkyl, (C_3-C_6)cycloalkyl, halo, -OH, -O-(C_1-C_4)alkyl, and -(C_1-C_4)alkylene-O-(C_1-C_4)alkyl; and

each m is independently 1 or 2,

with the proviso that when X is hydrogen, ring A is not an unsubstituted bivalent piperidine radical.

2. The compound of Claim 1, wherein:

X is selected from halo, -R', -OR, -SR, -S(O)$_m$R, -N(R)$_2$, -N(R)C(O)R, N(R)C(O)OR', and N(R)S(O)$_m$R';

X is selected from fluoro, chloro, hydrogen, methoxy, methyl, trifluoromethyl, trifluoromethoxy and dimethylamino; or

X is selected from fluoro, chloro, methoxy, methyl, trifluoromethyl, trifluoromethoxy and dimethylamino.

3. The compound of any one of claims 1-2, wherein R^1 is selected from hydrogen, -(C_1-C_8)alkyl, -(C_2-C_4)alkylene-O-(C_1-C_4)alkyl, -(C_0-C_3)alkylene-(saturated heterocycle), -(C_0-C_3)alkylene-(C_3-C_7)cycloalkyl, -C(O)-(CH_2)$_{1-3}$- N(R^2)(R^3); or

R^1 taken together with a ring atom adjacent to the nitrogen atom to which R^1 is bound forms a saturated heterocyclic ring fused to ring A; wherein:

any alkyl or alkylene portion of R^1 or the saturated heterocyclic ring fused to ring A is optionally substituted with fluoro or hydroxy;

R^2 is selected from hydrogen and $(C_1\text{-}C_3)$alkyl;

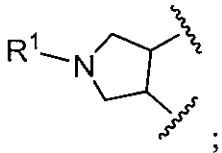
R^3 is selected from $(C_1\text{-}C_3)$alkyl and $(C_3\text{-}C_7)$cycloalkyl, or

R^2 and R^3, taken together with the nitrogen atom to which they are bound form a 4-7 membered saturated heterocyclyl, wherein the heterocyclyl is optionally substituted with fluoro.

4. The compound of claim 3, wherein R^1 is selected from hydrogen; $(C_1\text{-}C_3)$straight alkyl optionally substituted with one or more of: 1 to 5 methyl groups, a single hydroxy group, and 1 to 3 fluoro groups,; $(C_3\text{-}C_7)$cycloalkyl; tetrahydrofuranyl; and $\text{-C(O)-CH}_2\text{-N}(R^2)(R^3)$, wherein R^2 and R^3 are simultaneously methyl; R^2 is hydrogen and R^3 is $C_3\text{-}C_7$ cycloalkyl; or R^2 and R^3, taken together with the nitrogen atom to which they are bound form a pyrrolidinyl ring optionally substituted with fluoro, or

R^1 taken together with a ring atom adjacent to the nitrogen atom to which R^1 is bound forms a pyrrolidinyl or piperidinyl ring fused to ring A, wherein the pyrrolidinyl or piperidinyl ring fused to ring A is optionally substituted with hydroxy or fluorine.

5. The compound of claim 1, wherein:

ring A is 

;

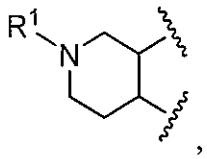
X is selected from fluoro, chloro, methoxy, trifluoromethyl, and dimethylamino; and

R^1 is selected from ethyl, propyl, $(C_3\text{-}C_5)$branched alkyl, $(C_3\text{-}C_5)$cycloalkyl, $(C_1\text{-}C_3)$alkylene-cyclopropyl, $\text{-C(O)CH}_2\text{NH}$-cyclopentyl, and -C(O)CH_2-pyrrolidin-1-yl, wherein R^1 is optionally substituted with fluoro;

optionally wherein:

R^1 is selected from 2-fluoroethyl, propyl, isopropyl, sec-butyl, tert-butyl, $(C_3\text{-}C_5)$cycloalkyl, $\text{-C(CH}_3)_2$-cyclopropyl, $\text{-C(O)CH}_2\text{NH}$-cyclopentyl, -C(O)CH_2-(3-fluoropyrrolidin-1-yl); and when X is methoxy or dimethylamino, R^1 is further selected from tert-pentyl.

6. The compound of claim 1, wherein:

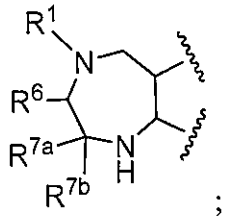
ring A is ,

X is fluoro; and

R^1 is selected from hydrogen, $(C_1\text{-}C_4)$alkyl;

optionally wherein R^1 is selected from isopropyl, propyl or ethyl.

7. The compound of claim 1, wherein:

ring A is ;

X is fluoro;

R^1 is selected from hydrogen, $(C_1\text{-}C_4)$alkyl;

R^6 is selected from hydrogen, (*R*)-$(C_1\text{-}C_4)$alkyl, or -CH_2-phenyl, or

R^1 and R^6 taken together with the nitrogen atom and the carbon atom to which they are respectively bound form a pyrrolidinyl ring fused to ring A;

R^{7a} and R^{7b} are each hydrogen or are taken together to form =O;

wherein at least one of R^1, and R^6 is other than hydrogen;

optionally wherein:

R^1 is selected from hydrogen, methyl, isobutyl, and tert-butyl; and

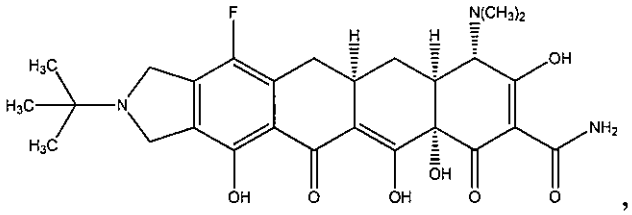
R^6 is selected from hydrogen, (*R*)-methyl, (*R*)-isobutyl, (*R*)-sec-butyl, (*R*)-isopropyl, and -CH_2-phenyl, or

R^1 and R^6 taken together with the nitrogen atom and the carbon atom to which they are respectively bound form a pyrrolidinyl ring fused to ring A.

8. The compound of Claim 1, wherein the compound is selected from any one of Compounds 100, 103, 110, 112, 113, 114, 115, 118, 119, 120, 121, 123, 124, 125, 126,

127, 128, 129, 130, 132, 135, 138, 141, 142, 143, 144, 145, 148, 149, 300, 304, 307, 400, 404, 405, 406, 407, 408, 409, 410, 412, 413, 416, 417, 419, 421, 422, 423, 424, 427, 428, and 429, or a pharmaceutically acceptable salt of any of the foregoing; or

the compound of Claim 1, represented by structural formula:



,

or a pharmaceutically acceptable salt thereof.

9. A pharmaceutical composition comprising a pharmaceutically acceptable carrier or diluent and a compound of any one of Claims 1-8.

10. The compound of any one of Claims 1-8 or a pharmaceutically acceptable salt thereof for use in treating or preventing an infection or colonization in a subject.

11. The compound for use according to Claim 10, wherein the infection is caused by:

a) an organism that grows intracellularly as part of its infection process; or

b) a Gram-positive organism, such as a Gram-positive organism selected from the class Bacilli, phylum Actinobacteria, *and* class Clostridia; or

c) a Gram-negative organism, such as a Gram-negative organism selected from the group consisting of *Enterobactericeae, Bacteroidetes, Vibrionaceae*, *Pasteurellaceae*, *Pseudomonadaceae*, *Neisseriaceae, Rickettsiae*, *Moraxellaceae* any species of *Proteeae, Acinetobacter* spp., *Helicobacter* spp., and *Campylobacter* spp.

12. The compound for use according to Claim 11, wherein the infection is caused by:

a) a Bacilli organism selected from *Staphylococcus* spp., *Streptococcus* spp., *Enterococcus* spp., *Bacillus* spp., and *Listeria* spp.; or

b) an Actinobacteria organism selected from *Propionibacterium* spp., *Corynebacterium* spp., *Nocardia* spp., *and Actinobacteria spp.*; or

c) a Clostridia organism selected from *Clostridium* spp.

13. The compound for use according to Claim 10, wherein the infection is caused by an organism selected from order Rickettsiales and order Chlamydiales, or by an organism selected from the phylum Chlamydiae and phylum Spriochaetales;
optionally wherein the phylum Spriochaetales organism is by an organism selected from *Borrelia* spp. and *Treponema* spp.

14. The compound for use according to Claim 10, wherein the infection is caused by an organism selected from the class Mollicutes, such as a Mollicutes organism selected from *Mycoplasma* spp.;
optionally wherein *Mycoplasma* spp. is *Mycoplasma pneumonia*.

15. The compound for use according to Claim 10, wherein the infection is caused by an organism selected from *Legionella* spp. and *Mycobacterium* spp., such as a *Mycobacterium* spp organism selected from *Mycobacterium tuberculosis*.

16. The compound for use according to Claim 10, wherein the infection is caused by:

a) more than one organism; or

b) an organism resistant to one or more antibiotics; or

c) an organism resistant to tetracycline or any member of first and second generation of tetracycline antibiotics; or

d) an organism resistant to methicillin or any antibiotic in the β-lactam class, including second, third and fourth-generation cephalosporins; or

e) an organism resistant to a quinolone or fluoroquinolone; or

f) an organism resistant to tigecycline; or

g) an organism resistant to tetracycline; or

h) an organism resistant to methicillin; or

i) an organism resistant to vancomycin; or

j) an organism resistant to an antimicrobial peptide or a biosimilar therapeutic treatment.

17. The compound for use according to Claim 11, wherein the Gram-positive organism is selected from S. *aureus,* CoNS, S. *pneumoniae,* S. *pyogenes,* S. *agalactiae, E. faecalis* and *E. faecium;*
optionally wherein the Gram-negative organism is selected from *H. influenza, M. catarrhalis* and *Legionella pneumophila.*

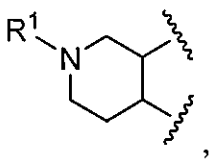
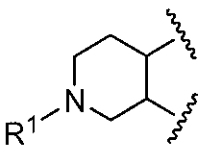
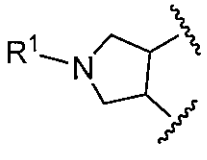
18. The compound of any one of Claims 1-8 or a pharmaceutically acceptable salt thereof or the pharmaceutical composition of Claim 9 for use in treating or preventing a respiratory infection in a subject;

optionally wherein the respiratory infection is Community-Acquired Bacterial Pneumonia (CABP), such as a respiratory infection caused by a bacterium selected from S. *aureus,* S. *pneumoniae,* S. *pyogenes, H. influenza, M. catarrhalis* and *Legionella pneumophila; or*

the compound of any one of Claims 1-8 or a pharmaceutically acceptable salt thereof or the pharmaceutical composition of Claim 9 for use in treating or preventing a skin infection in a subject;

optionally wherein the skin infection is an acute bacterial skin and skin structure infection (ABSSSI), such as a skin infection caused by a bacterium selected from S. *aureus,* CoNS, S. *pyogenes,* S. *agalactiae, E. faecalis* and *E. faecium.*

19. The compound of Claim 1, wherein:

ring A is selected from , , and .