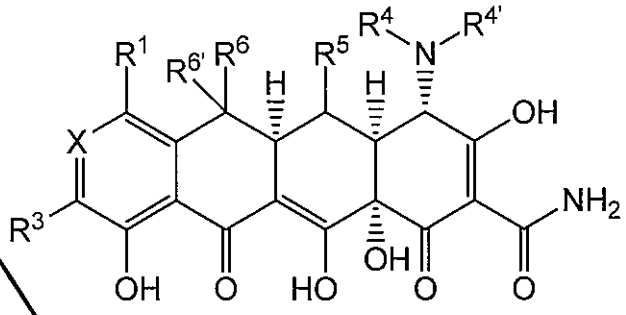
CLAIMS

What is claimed is:

1. A compound having Structural Formula (I):



(I),

or a pharmaceutically acceptable salt thereof, wherein:

X is selected from N and $C(R^2)$;

each of R^1, R^2, R^3, R^5 and R^6 is independently selected from hydrogen, halo, -(C_1-C_6 alkyl), $-OR^A$, $-C(O)NR^BR^{B'}$, $NR^BR^{B'}$, $S(O)_{0-2}R^C$, -(C_0-C_6 alkylene)-carbocyclyl, and -(C_0-C_6 alkylene)-heterocyclyl; or

R^1 and R^2 are optionally taken together with atoms to which they are bound to form a carbocyclyl or heterocyclyl ring; or

R^2 and R^3 are optionally taken together with atoms to which they are bound to form a carbocyclyl or heterocyclyl ring;

R^4 is selected from hydrogen, -(C_1-C_6 alkyl), -(C_0-C_6 alkylene)-carbocyclyl, and -(C_0-C_6 alkylene)-heterocyclyl;

$R^{4'}$ is selected from hydrogen, -(C_2-C_6 alkyl), $S(O)_{1-2}R^C$, -(C_0-C_6 alkylene)-carbocyclyl, -(C_0-C_6 alkylene)-heterocyclyl, -C(O)-(C_1-C_6 alkyl), and -C(O)-(C_1-C_6 alkyl)-NR^DR^E; or

R^4 and $R^{4'}$ are optionally taken together with the nitrogen atom to which they are commonly bound to form a 4-8 membered ring optionally comprising 1-2 additional heteroatoms independently selected from N, O and S;

$R^{6'}$ is selected from hydrogen, -(C_1-C_6 alkyl) and -(C_3-C_6 cycloalkyl);

each R^A is independently selected from hydrogen, -(C_1-C_6 alkyl), -(C_0-C_6 alkylene)-carbocyclyl, -(C_0-C_6 alkylene)-heterocyclyl, -C(O)-(C_1-C_6 alkyl), -C(O)-(C_0-C_6 alkylene)-carbocyclyl, -C(O)-(C_0-C_6 alkylene)-heterocyclyl, and $-C(O)N(R^D)(R^E)$;

each R^B and each $R^{B'}$ is independently selected from hydrogen, -(C_1-C_6 alkyl), -(C_1-C_6 haloalkyl), -(C_0-C_6 alkylene)-carbocyclyl, -(C_0-C_6 alkylene)-heterocyclyl, -$S(O)_{1-2}$-(C_1-C_6 alkyl), -$S(O)_{1-2}$-(C_0-C_6 alkylene)-carbocyclyl, -$S(O)_{1-2}$-(C_0-C_6 alkylene)-heterocyclyl, -C(O)-(C_1-C_6 alkyl), -C(O)-(C_0-C_6 alkylene)-carbocyclyl, -C(O)H, -C(O)-(C_0-C_6 alkylene)-heterocyclyl, and -C(O)-(C_0-C_6 alkylene)-$N(R^D)(R^E)$;

each R^C is independently selected from -(C_1-C_6 alkyl), -(C_0-C_6 alkylene)-carbocyclyl and -(C_0-C_6 alkylene)-heterocyclyl; and

each R^D and each R^E is independently selected from hydrogen, -(C_1-C_6 alkyl), -(C_0-C_6 alkylene)-carbocyclyl, and -(C_0-C_6 alkylene)-heterocyclyl,

wherein:

any alkyl or alkylene portion of R^1, R^2, R^3, R^4, $R^{4'}$, R^5, R^6 is optionally and independently substituted with one or more substituents independently selected from halo, =O, OR^A, $NR^BR^{B'}$, and $S(O)_{0-2}R^C$;

any alkyl or alkylene portion of $R^{6'}$, R^A, or R^C, is optionally and independently substituted with one or more fluoro;

any carbocyclyl or heterocyclyl portion of any of R^1, R^2, R^3, R^4, $R^{4'}$, R^5, R^6, or any ring formed by taking together R^1 and R^2, R^2 and R^3 or R^4 and $R^{4'}$ is optionally and independently substituted on a carbon atom with one or more substituents independently selected from halo, =O, C_1-C_4 fluoroalkyl, C_1-C_4 alkyl, -(C_0-C_6 alkylene)-(C_3-C_{10} carbocyclyl), -(C_0-C_6 alkylene)-(4-13 membered heterocyclyl), OR^A, -(C_0-C_6 alkylene)-$NR^BR^{B'}$, and $S(O)_{0-2}R^C$;

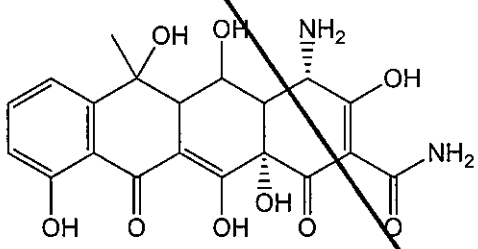
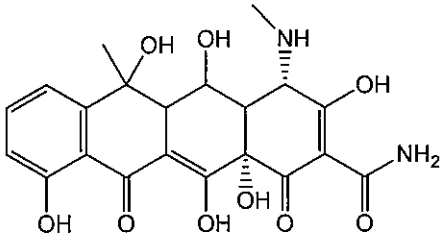
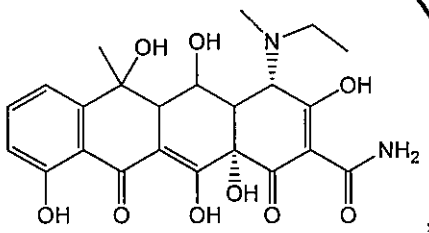
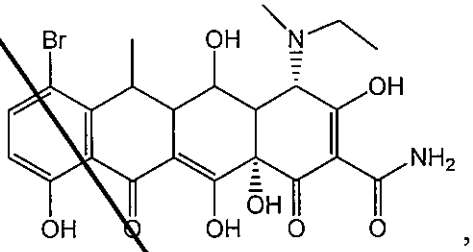
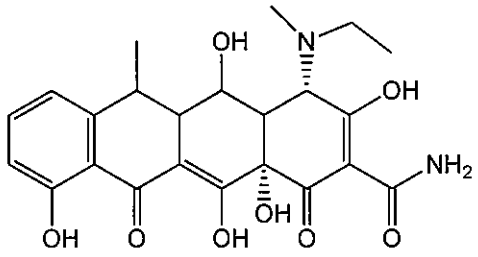
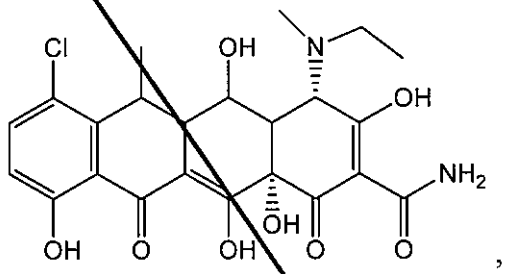
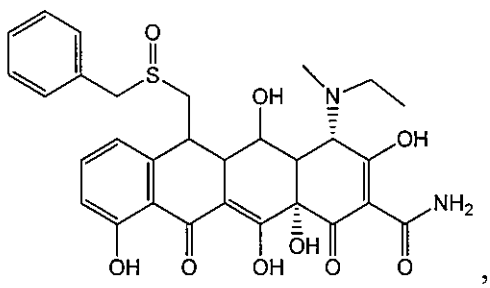
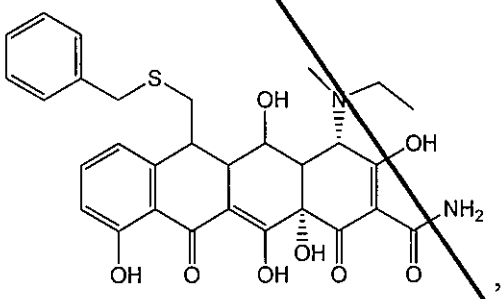
any heterocyclyl portion of any of R^1, R^2, R^3, R^4, $R^{4'}$, R^5, R^6, or any ring formed by taking together R^1 and R^2, R^2 and R^3 or R^4 and $R^{4'}$ is optionally and independently substituted on a substitutable nitrogen atom with R^F;

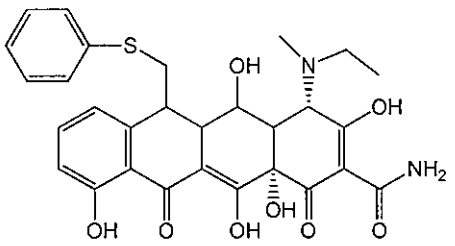
each R^F is independently selected from -(C_1-C_6 alkyl), -(C_1-C_6 haloalkyl), -(C_1-C_6 hydroxyalkyl), -(C_0-C_6 alkylene)-carbocyclyl, -(C_0-C_6 alkylene)-heterocyclyl, -$S(O)_{1-2}$-(C_1-C_6 alkyl), -$S(O)_{1-2}$-(C_0-C_6 alkylene)-carbocyclyl, -$S(O)_{1-2}$-(C_0-C_6 alkylene)-heterocyclyl, -C(O)-(C_1-C_6 alkyl), -C(O)-(C_0-C_6 alkylene)-carbocyclyl, -C(O)H, -C(O)-(C_0-C_6 alkylene)-heterocyclyl, -(C_0-C_6 alkylene)-$C(O)_2$-(C_1-C_6 alkyl), -(C_1-C_6 alkylene)-$NR^BR^{B'}$ and -C(O)$N(R^D)(R^E)$;

any carbocyclyl or heterocyclyl portion of R^A, R^B, $R^{B'}$, R^C, R^D, R^E, R^F, any cycloalkyl portion of $R^{6'}$, or any substituent of R^1, R^2, R^3, R^4, $R^{4'}$, R^5, R^6 is optionally and independently substituted on a carbon atom with a one or more substituents independently selected from fluoro, chloro, C_1-C_4 alkyl, C_1-C_4 fluoroalkyl, -O-C_1-C_4 alkyl, -O-C_1-C_4 fluoroalkyl, =O, -OH, $-NH_2$, -NH(C_1-C_4 alkyl), and -N(C_1-C_4 alkyl)$_2$;

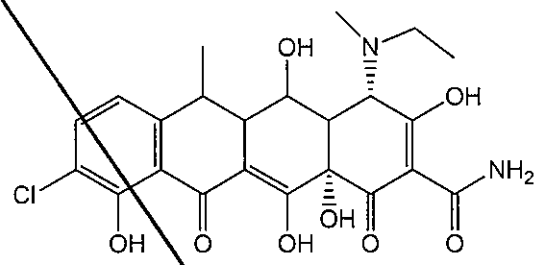
any heterocyclyl portion of R^A, R^B, $R^{B'}$, R^C, R^D, R^E, R^F, or any heterocyclyl substituent of R^1, R^2, R^3, R^4, $R^{4'}$, R^5, or R^6 is optionally substituted on a substitutable nitrogen atom with -C_1-C_4 alkyl, or -S(O)$_{1-2}$-(C_1-C_4 alkyl); and

the compound is other than:


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, or a salt of any of the foregoing.

2. The compound of claim 1, or a pharmaceutically acceptable salt thereof, wherein:

X is selected from N and $C(R^2)$;

each of R^1, R^2, R^3, R^5 and R^6 is independently selected from hydrogen, halo, -(C_1-C_6 alkyl), $-OR^A$, $-C(O)NR^BR^{B'}$, $NR^BR^{B'}$, $S(O)_{0-2}R^C$, -(C_0-C_6 alkylene)-carbocyclyl, and -(C_0-C_6 alkylene)-heterocyclyl; or

R^1 and R^2 are optionally taken together with atoms to which they are bound to form a carbocyclyl or heterocyclyl ring; or

R^2 and R^3 are optionally taken together with atoms to which they are bound to form a carbocyclyl or heterocyclyl ring;

R^4 is selected from hydrogen, -(C_1-C_6 alkyl), -(C_0-C_6 alkylene)-carbocyclyl, and -(C_0-C_6 alkylene)-heterocyclyl;

$R^{4'}$ is selected from hydrogen, , -(C_2-C_6 alkyl), $S(O)_{1-2}R^C$, -(C_0-C_6 alkylene)-carbocyclyl, -(C_0-C_6 alkylene)-heterocyclyl, -C(O)-(C_1-C_6 alkyl), and -C(O)-(C_1-C_6 alkyl)-NR^DR^E; or

R^4 and $R^{4'}$ are optionally taken together with the nitrogen atom to which they are commonly bound to form a 4-8 membered ring optionally comprising 1-2 additional heteroatoms independently selected from N, O and S;

$R^{6'}$ is selected from hydrogen, -(C_1-C_6 alkyl) and -(C_3-C_6 cycloalkyl);

each R^A is independently selected from hydrogen, -(C_1-C_6 alkyl), -(C_0-C_6 alkylene)-carbocyclyl, -(C_0-C_6 alkylene)-heterocyclyl, -C(O)-(C_1-C_6 alkyl),

-C(O)-(C_0-C_6 alkylene)-carbocyclyl, -C(O)-(C_0-C_6 alkylene)-heterocyclyl, and -C(O)N(R^D)(R^E);

each R^B and each $R^{B'}$ is independently selected from hydrogen, -(C_1-C_6 alkyl), -(C_0-C_6 alkylene)-carbocyclyl, -(C_0-C_6 alkylene)-heterocyclyl, -$S(O)_{1-2}$-(C_1-C_6 alkyl), -$S(O)_{1-2}$-(C_0-C_6 alkylene)-carbocyclyl, -$S(O)_{1-2}$-(C_0-C_6 alkylene)-heterocyclyl, -C(O)-(C_1-C_6 alkyl), -C(O)-(C_0-C_6 alkylene)-carbocyclyl, -C(O)H, -C(O)-(C_0-C_6 alkylene)-heterocyclyl, and -C(O)N(R^D)(R^E);

each R^C is independently selected from -(C_1-C_6 alkyl), -(C_0-C_6 alkylene)-carbocyclyl and -(C_0-C_6 alkylene)-heterocyclyl; and

each R^D and each R^E is independently selected from hydrogen, -(C_1-C_6 alkyl), -(C_0-C_6 alkylene)-carbocyclyl, and -(C_0-C_6 alkylene)-heterocyclyl,

wherein:

any alkyl, or alkylene portion of R^1, R^2, R^3, R^4, $R^{4'}$, R^5, R^6 is optionally and independently substituted with one or more substituents independently selected from halo, =O, OR^A, $NR^BR^{B'}$, and $S(O)_{0-2}R^C$;

any alkyl or alkylene portion of $R^{6'}$, R^A, or R^C, is optionally and independently substituted with one or more fluoro;

any carbocyclyl or heterocyclyl portion of any of R^1, R^2, R^3, R^4, $R^{4'}$, R^5, R^6, or any ring formed by taking together R^1 and R^2, R^2 and R^3, or R^4 and $R^{4'}$ is optionally and independently substituted on a carbon atom with one or more substituents independently selected from halo, =O, C_1-C_4 fluoroalkyl, C_1-C_4 alkyl, C_3-C_{10} carbocyclyl, a 4-13 membered heterocyclyl, OR^A, $NR^BR^{B'}$, and $S(O)_{0-2}R^C$;

any heterocyclyl portion of any of R^1, R^2, R^3, R^4, $R^{4'}$, R^5, R^6, or any ring formed by taking together R^1 and R^2, R^2 and R^3, or R^4 and $R^{4'}$ is optionally and independently substituted on a substitutable nitrogen atom with R^F;

each R^F is independently selected from -(C_1-C_6 alkyl), -(C_0-C_6 alkylene)-carbocyclyl, -(C_0-C_6 alkylene)-heterocyclyl, -$S(O)_{1-2}$-(C_1-C_6 alkyl), -$S(O)_{1-2}$-(C_0-C_6 alkylene)-carbocyclyl, -$S(O)_{1-2}$-(C_0-C_6 alkylene)-heterocyclyl, -C(O)-(C_1-C_6 alkyl), -C(O)-(C_0-C_6 alkylene)-carbocyclyl, -C(O)H, -C(O)-(C_0-C_6 alkylene)-heterocyclyl, and -C(O)N(R^D)(R^E);

any carbocyclyl or heterocyclyl portion of R^A, R^B, $R^{B'}$, R^C, R^D, R^E, R^F, any cycloalkyl portion of $R^{6'}$, or any substituent of R^1, R^2, R^3, R^4, $R^{4'}$, R^5, R^6 is optionally and independently substituted on a carbon atom with a one or more substituents independently selected from fluoro, chloro, C_1-C_4 alkyl, C_1-C_4 fluoroalkyl, -O-C_1-C_4 alkyl, -O-C_1-C_4 fluoroalkyl, =O, -OH, $-NH_2$, $-NH(C_1$-C_4 alkyl), and $-N(C_1$-C_4 alkyl$)_2$; and

any heterocyclyl portion of R^A, R^B, $R^{B'}$, R^C, R^D, R^E, R^F, or any heterocyclyl substituent of R^1, R^2, R^3, R^4, $R^{4'}$, R^5, or R^6 is optionally substituted on a substitutable nitrogen atom with -C_1-C_4 alkyl, or -$S(O)_{1-2}$-(C_1-C_4 alkyl).

3. The compound of claim 1 or 2, wherein each of R^5, R^6 and $R^{6'}$ is hydrogen.

4. The compound of any one of claims 1 to 3, wherein:

R^4 is selected from hydrogen and -(C_1-C_6 alkyl);

$R^{4'}$ is selected from hydrogen, -(C_2-C_6 alkyl) optionally substituted with one or more substituents independently selected from hydroxy and halo, -(C_3-C_6 cycloalkyl), -C(O)-(C_1-C_6 alkyl), -C(O)-(C_1-C_6 alkylene)-$N(R^D)(R^E)$, and $S(O)_{1-2}R^C$; or

R^4 and $R^{4'}$ are taken together with the nitrogen atom to which they are commonly bound to form a 4-6 membered ring optionally comprising 1-2 additional heteroatoms independently selected from N, O and S;

R^C is -(C_1-C_6 alkyl); and

each of R^D and R^E is independently selected from hydrogen and -(C_1-C_6 alkyl).

5. The compound of claim 4, wherein:

R^4 is selected from hydrogen and -(C_1-C_6 alkyl);

$R^{4'}$ is selected from hydrogen, -(C_2-C_6 alkyl), -(C_3-C_6 cycloalkyl), -C(O)-(C_1-C_6 alkyl), -C(O)-(C_1-C_6 alkylene)-$N(R^D)(R^E)$, and $S(O)_{1-2}R^C$;

R^C is -(C_1-C_6 alkyl); and

each of R^D and R^E is independently selected from hydrogen and -(C_1-C_6 alkyl).

6. The compound of claim 5, wherein:

R^4 is selected from hydrogen, methyl, ethyl and propyl; and

$R^{4'}$ is selected from hydrogen, ethyl, propyl, cyclopropyl, $-C(O)CH_3$, $-C(O)CH_2N(CH_3)_2$, and $-S(O)_2CH_3$.

7. The compound of any one of claims 1 to 6, wherein R^1 is selected from hydrogen, halo, $-(C_1-C_6$ alkyl) optionally substituted with one or more substituents independently selected from halo, $-NR^BR^{B'}$, $-C(O)NR^BR^{B'}$, $-OR^A$, $-(C_0-C_6$ alkylene)-carbocyclyl, and $-(C_0-C_6$ alkylene)-heterocyclyl, wherein R^A is C_1-C_6 alkyl optionally substituted with one or more fluoro.

8. The compound of any one of claim 1 to 7, wherein R^3 is selected from hydrogen and $-N(R^B)(R^{B'})$, wherein R^B is hydrogen.

9. The compound of any one of claims 1 to 8, wherein X is $C(R^2)$.

10. The compound of any one of claims 1 to 9, wherein:

X is $C(R^2)$; and

R^1 is selected from hydrogen, halo, $-(C_1-C_6$ alkyl) optionally substituted with one or more substituents independently selected from halo, $-NR^BR^{B'}$, $-C(O)NR^BR^{B'}$, $-OR^A$, $-(C_0-C_6$ alkylene)-carbocyclyl, and $-(C_0-C_6$ alkylene)-heterocyclyl, wherein R^A is C_1-C_6 alkyl optionally substituted with one or more fluoro.

11. The compound of claim 10, wherein R^1 is selected from hydrogen, halo, $-(C_1-C_6$ alkyl) optionally substituted with one or more substituents independently selected from halo, and $-OR^A$, wherein R^A is C_1-C_6 alkyl optionally substituted with one or more fluoro.

12. The compound of claim 11, wherein R^1 is selected from hydrogen, fluoro, chloro, CF_3, OCH_3, OCF_3, $N(CH_3)_2$ and $NHCH_3$.

13. The compound of claim 12, wherein R^1 is selected from hydrogen, fluoro, chloro, CF_3 and OCF_3.

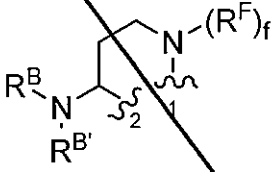
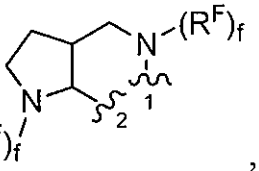
14. The compound of any one of claims 1 to 9, wherein:

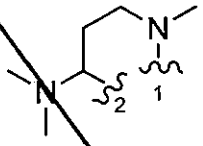
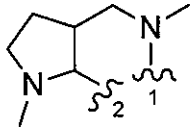
X is $C(R^2)$; and

R^1 and R^2 are taken together with the atoms to which they are bound to form a nitrogen-containing heterocyclyl ring, wherein the ring comprising R^1 and R^2 is optionally substituted on any substitutable nitrogen atom with C_1-C_4 alkyl; and optionally substituted on a carbon atom with $NR^BR^{B'}$, wherein each of R^B and $R^{B'}$ is independently selected from hydrogen and C_1-C_6 alkyl.

15. The compound of any one of claims 1 to 9, wherein:

X is $C(R^2)$; and

R^1 and R^2 are taken together with the carbon atoms to which they are bound to form:  or , wherein "〰 1" represents a point of attachment to the carbon atom bound to R^1; "〰 2" represents a point of attachment to the carbon atom bound to R^2; and f is 0 or 1.

16. The compound of claim 14 or 15, wherein R^1 and R^2 are taken together with the carbon atoms to which they are bound to form:  or , wherein "〰 1" represents a point of attachment to the carbon atom bound to R^1 and "〰 2" represents a point of attachment to the carbon atom bound to R^2.

17. The compound of any one of claims 1 to 13, wherein

X is $C(R^2)$; and

R^2 is -(C_0-C_6 alkylene)-heterocyclyl optionally substituted on a nitrogen atom with -(C_1-C_6 alkyl); -(C_0-C_6 alkylene)-carbocyclyl; or -(C_1-

C_6)alkyl substituted with $NR^BR^{B'}$.

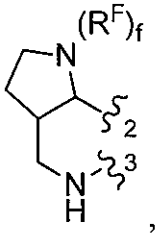
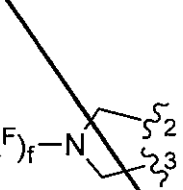
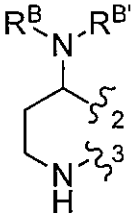
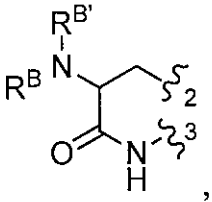
18. The compound of claim 17, wherein R^2 is pyrrolidinyl optionally substituted on a nitrogen atom with C_1-C_4 alkyl or benzyl.

19. The compound of any one of claims 1 to 13, wherein:

X is $C(R^2)$; and

R^2 and R^3 are taken together with the atoms to which they are bound to form a nitrogen-containing heterocyclyl.

20. The compound of claim 19, wherein R^2 and R^3 are taken together with the atoms to which they are bound to

form , , or , wherein

"$\sim$ 2" represents a point of attachment to the carbon atom bound to R^2;

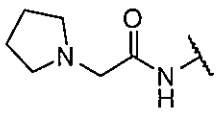
"$\sim$ 3" represents a point of attachment to the carbon atom bound to R^3; and f is 0 or 1.

21. The compound of any one of claims 1-18, wherein:

X is $C(R^2)$; and

R^3 is selected from hydrogen and $-N(R^B)(R^{B'})$, wherein R^B is hydrogen and $R^{B'}$ is -C(O)-(C_0-C_6 alkylene)-heterocyclyl or -C(O)-(C_0-C_6 alkylene)-$N(R^D)(R^E)$.

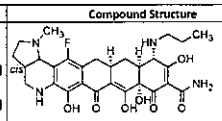
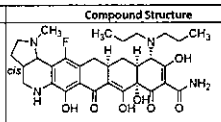
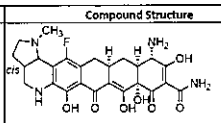
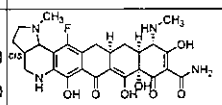
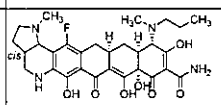
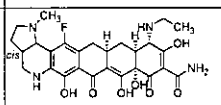
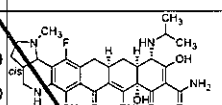
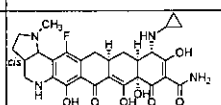
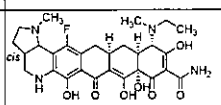
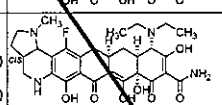
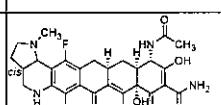
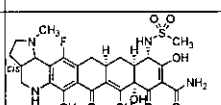
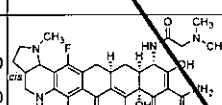
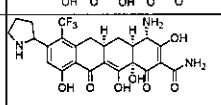
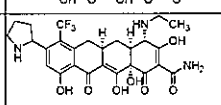
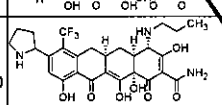
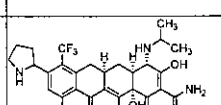
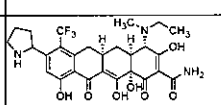
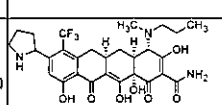
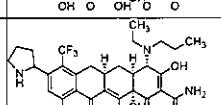
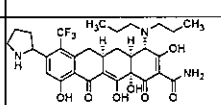
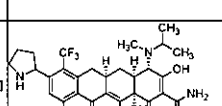
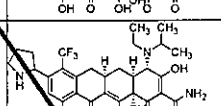
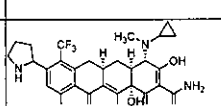
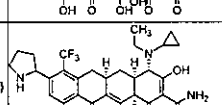
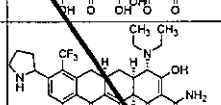
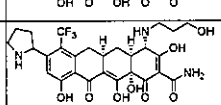
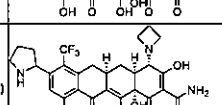
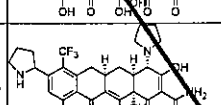
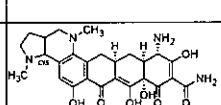
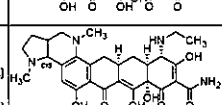
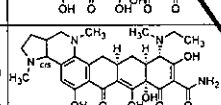
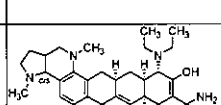
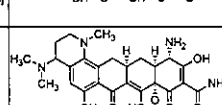
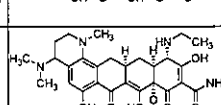
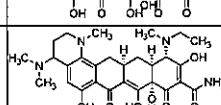
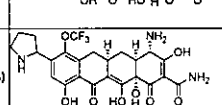
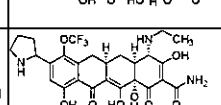
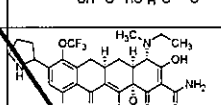
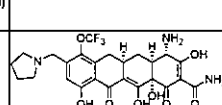
22. The compound of claim 21, wherein R^3 is selected from hydrogen

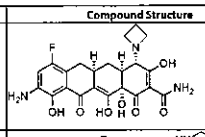
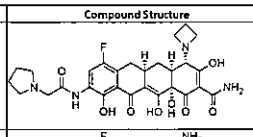
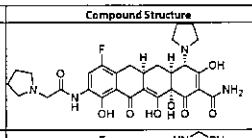
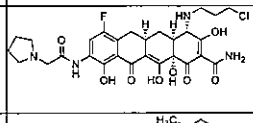
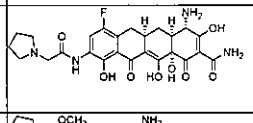
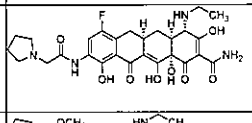
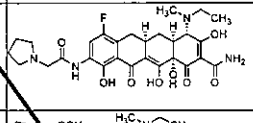
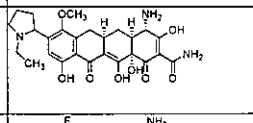
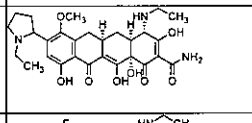
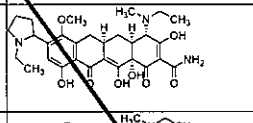
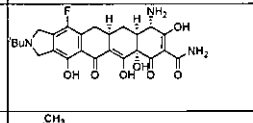
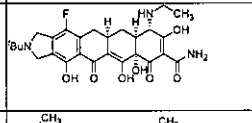
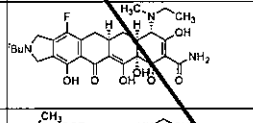
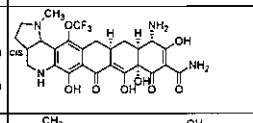
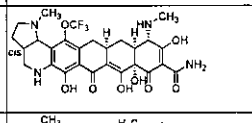
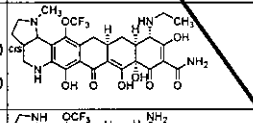
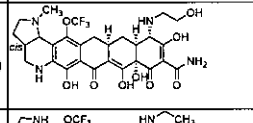
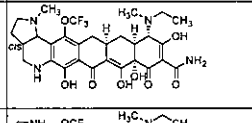
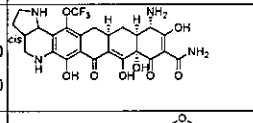
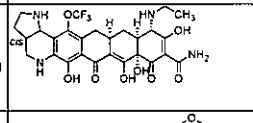
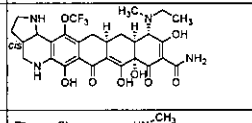
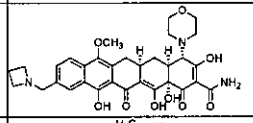
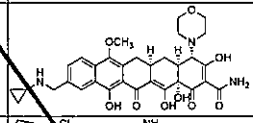
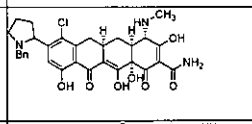
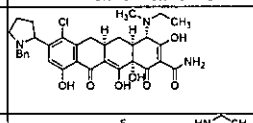
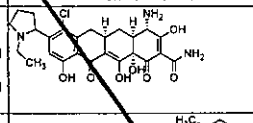
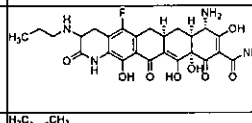
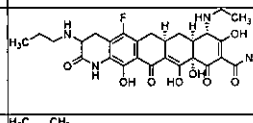
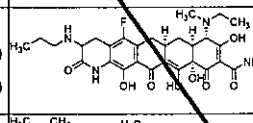
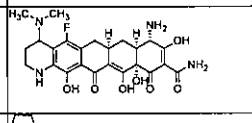
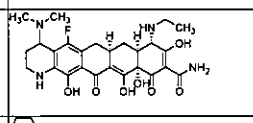
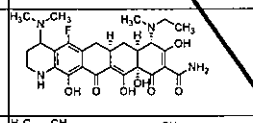
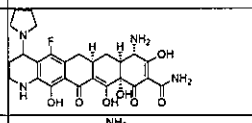
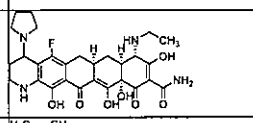
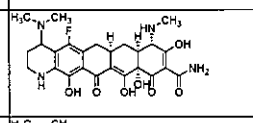
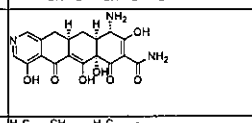
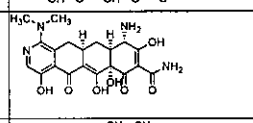
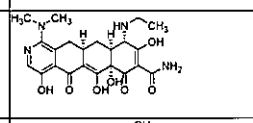
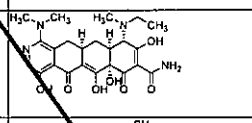
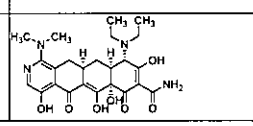


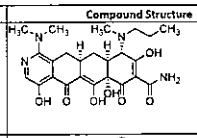
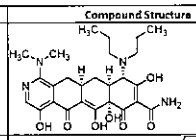
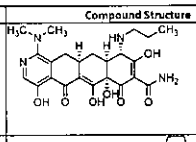
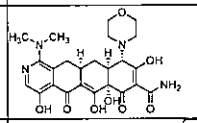
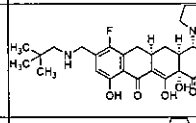
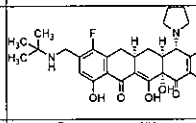
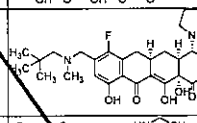
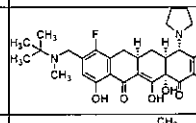
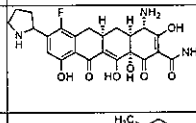
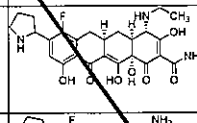
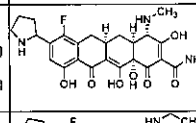
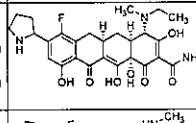
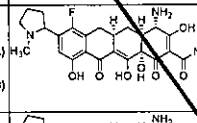
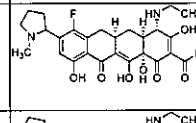
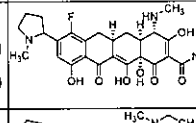
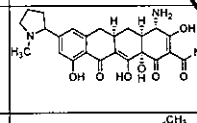
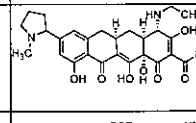
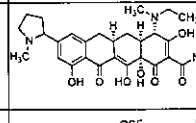
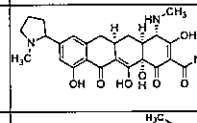
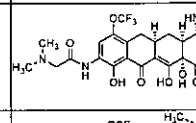
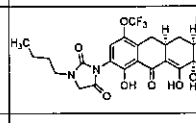
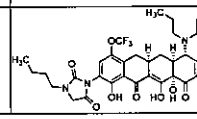
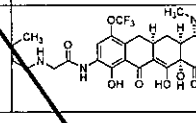
and .

23. The compound of any one of claims 1 to 8, wherein X is N.

24. A compound selected from any one of the following compounds:

Compound No.	Compound Structure	Compound No.	Compound Structure	Compound No.	Compound Structure
S3-7-1-A (diastereomer A) S3-7-1-B (diastereomer B)		S3-7-2		S3-7-3-A (diastereomer A) S3-7-3-B (diastereomer B)	
S3-7-4-A (diastereomer A) S3-7-4-B (diastereomer B)		S3-7-5		S3-7-6-A (diastereomer A) S3-7-6-B (diastereomer B)	
S3-7-7-A (diastereomer A) S3-7-7-B (diastereomer B)		S3-7-8-A (diastereomer A) S3-7-8-B (Diastereomer B)		S3-7-9-A (diastereomer A) S3-7-9-B (diastereomer B)	
S3-7-10-A (diastereomer A) S3-7-10-B (diastereomer B)		S3-7-11		S3-7-12	
S3-7-13-A (diastereomer A) S3-7-13-B (diastereomer B)		S4-14-1 (diastereomer A)		S4-14-2 (diastereomer A)	
S4-14-3 (diastereomer A)		S4-14-4 (diastereomer A)		S4-14-5-A (diastereomer A) S4-14-5-B (diastereomer B)	
S4-14-7 (diastereomer A)		S4-14-8 (diastereomer A)		S4-14-9 (diastereomer A)	
S4-14-10 (diastereomer A)		S4-14-11 (diastereomer A)		S4-14-12 (diastereomer A)	
S4-14-13 (diastereomer A)		S4-14-14-A (diastereomer A) S4-14-14-B (diastereomer B)		S4-14-16 (diastereomer A)	
S4-14-17 (diastereomer A)		S4-14-18 (diastereomer A)		S5-10-1-A (diastereomer A) S5-10-1-B (diastereomer B)	
S5-10-1-2-A (diastereomer A) S5-10-1-2-B (diastereomer B)		S5-10-3-A (diastereomer A) S5-10-3-B (diastereomer B)		S5-10-4-A (diastereomer A) S5-10-4-B (diastereomer B)	
S6-6-1 (single diastereomer)		S6-6-2 (single diastereomer)		S6-6-3 (single diastereomer)	
S7-14-1-A (diastereomer A) S7-14-1-B (diastereomer B)		S7-14-2-A (diastereomer A)		S7-14-3-A (diastereomer A)	
S8-4-1		S8-4-2		S8-4-3	

Compound No.	Compound Structure	Compound No.	Compound Structure	Compound No.	Compound Structure
S9-4-1		S9-5-1		S9-5-2	
S9-5-3		S9-5-4		S9-5-5	
S9-5-6		S10-4-1 (single diastereomer)		S10-4-2 (single diastereomer)	
S10-4-3 (single diastereomer)		S11-3-1		S11-3-2	
S11-3-3		S12-8-1-A (diastereomer A) S12-8-1-B (diastereomer B)		S12-8-2-A (diastereomer A)	
S12-8-3-A (diastereomer A) S12-8-3-B) (diastereomer B)		S12-8-4-A (diastereomer A)		S12-8-5-A (diastereomer A)	
S12-8-6-A (diastereomer A) S12-8-6-B (diastereomer B)		S12-8-7-A (diastereomer A)		S12-8-8-A (diastereomer A)	
S13-5-1		S13-5-2		S14-8-1	
S14-8-2		S14-8-3-A (diastereomer A) S14-8-3-B (diastereomer B)		S15-10-1	
S15-10-2		S15-10-3-A (diastereomer A) S15-10-3-B (diastereomer B)		S16-7-1 (single diastereomer)	
S16-7-2 (single diastereomer)		S16-7-3 (single diastereomer)		S16-7-4 (single diastereomer)	
S16-7-5 (single diastereomer)		S16-7-6 (single diastereomer)		S17-3-1	
S17-3-2		S17-3-3		S17-3-4	
S17-3-5		S17-3-6		S17-3-7	

Compound No.	Compound Structure	Compound No.	Compound Structure	Compound No.	Compound Structure
S17-3-8		S17-3-9		S17-3-10	
S17-3-11		S18-5-1-1		S18-5-1-2	
S18-5-2-1		S18-5-2-2		S19-7-1-B (diastereomer B)	
S19-7-2		S19-7-3-A (diastereomer A) S19-7-3-B (diastereomer B)		S19-7-4-A (diastereomer A) S19-7-4-B (diastereomer B)	
S19-7-5-A (diastereomer A) S19-7-5-B (diastereomer B)		S19-7-6		S19-7-7-A (diastereomer A) S19-7-7-B (diastereomer B)	
S20-4-1 (single diastereomer)		S20-4-2 (single diastereomer)		S20-4-3 (single diastereomer)	
S20-4-4 (single diastereomer)		S21-5-1		S21-5-2	
S21-5-3		S21-5-4			

or a pharmaceutically acceptable salt thereof.

25. A pharmaceutical composition comprising a pharmaceutically acceptable carrier or diluent and a compound of any one of Claims 1-24.

26. A compound of any one of Claims 1-24, or a pharmaceutically acceptable salt thereof, or a pharmaceutical composition of Claim 25, for use in the treatment of an infection or colonization.

27. The compound or pharmaceutically acceptable salt thereof, or the pharmaceutical composition as claimed in Claim 26, wherein the infection is caused by an organism that grows intracellularly as part of its infection process.

28. The compound or pharmaceutically acceptable salt thereof, or the pharmaceutical composition as claimed in Claim 26, wherein the infection is caused by a Gram-positive organism.

29. The compound or pharmaceutically acceptable salt thereof, or the pharmaceutical composition as claimed in Claim 28, wherein the Gram-positive organism is selected from the class Bacilli; phylum Actinobacteria; and class Clostridia.

30. The compound or pharmaceutically acceptable salt thereof, or the pharmaceutical composition as claimed in Claim 29, wherein the class Bacilli organism is selected from *Staphylococcus* spp., *Streptococcus* spp., *Enterococcus* spp., *Bacillus* spp., and *Listeria* spp.

31. The compound or pharmaceutically acceptable salt thereof, or the pharmaceutical composition as claimed in Claim 29, wherein the class phylum Actinobacteria organism is selected from *Propionibacterium* spp., *Corynebacterium* spp., *Nocardia* spp., and *Actinobacteria* spp.

32. The compound or pharmaceutically acceptable salt thereof, or the pharmaceutical composition as claimed in Claim 29, wherein the class Clostridia organism is selected from *Clostridium* spp.

33. The compound or pharmaceutically acceptable salt thereof, or the pharmaceutical composition as claimed in Claim 26, wherein the infection is caused by a Gram-negative organism.

34. The compound or pharmaceutically acceptable salt thereof, or the pharmaceutical composition as claimed in Claim 33, wherein the Gram-negative organism is 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.

35. The compound or pharmaceutically acceptable salt thereof, or the pharmaceutical composition as claimed in Claim 26, wherein the infection is

caused by an organism selected from order Rickettsiales and order Chlamydiales.

36. The compound or pharmaceutically acceptable salt thereof, or the pharmaceutical composition as claimed in Claim 26, wherein the infection is caused by an organism selected from the phylum Chlamydiae and phylum Spriochaetales.

37. The compound or pharmaceutically acceptable salt thereof, or the pharmaceutical composition as claimed in Claim 36, wherein the phylum Spriochaetales organism is selected from *Borrelia* spp. and *Treponema* spp.

38. The compound or pharmaceutically acceptable salt thereof, or the pharmaceutical composition as claimed in Claim 26, wherein the infection is caused by an organism selected from the class Mollicutes.

39. The compound or pharmaceutically acceptable salt thereof, or the pharmaceutical composition as claimed in Claim 38, wherein the class Mollicutes organism is selected from *Mycoplasma* spp.

40. The compound or pharmaceutically acceptable salt thereof, or the pharmaceutical composition as claimed in Claim 39, wherein *Mycoplasma* spp. is *Mycoplasma pneumoniae.*

41. The compound or pharmaceutically acceptable salt thereof, or the pharmaceutical composition as claimed in Claim 26, wherein the infection is caused by an organism selected from *Legionella* spp. and *Mycobacterium* spp.

42. The compound or pharmaceutically acceptable salt thereof, or the pharmaceutical composition as claimed in Claim 41, wherein the *Mycobacterium* spp is *Mycobacterium tuberculosis.*

43. The compound or pharmaceutically acceptable salt thereof, or the pharmaceutical composition as claimed in Claim 26, wherein the infection is caused by more than one organism.

44. The compound or pharmaceutically acceptable salt thereof, or the pharmaceutical composition as claimed in Claim 26, wherein the infection is caused by an organism resistant to one or more antibiotics.

45. The compound or pharmaceutically acceptable salt thereof, or the pharmaceutical composition as claimed in Claim 26, wherein the infection is caused by an organism resistant to tetracycline or any member of first and second generation of tetracycline antibiotics.

46. The compound or pharmaceutically acceptable salt thereof, or the pharmaceutical composition as claimed in Claim 26, wherein the infection is caused by an organism resistant to methicillin or any antibiotic in the β-lactam class.

47. The compound or pharmaceutically acceptable salt thereof, or the pharmaceutical composition as claimed in Claim 46, wherein the β-lactam class is selected from second, third and fourth-generation cephalosporins.

48. The compound or pharmaceutically acceptable salt thereof, or the pharmaceutical composition as claimed in Claim 26, wherein the infection is caused by an organism resistant to a quinolone or fluoroquinolone.

49. The compound or pharmaceutically acceptable salt thereof, or the pharmaceutical composition as claimed in Claim 26, wherein the infection is caused by an organism resistant to tigecycline.

50. The compound or pharmaceutically acceptable salt thereof, or the pharmaceutical composition as claimed in Claim 26, wherein the infection is caused by an organism resistant to tetracycline.

51. The compound or pharmaceutically acceptable salt thereof, or the pharmaceutical composition as claimed in Claim 26, wherein the infection is caused by an organism resistant to methicillin.

52. The compound or pharmaceutically acceptable salt thereof, or the pharmaceutical composition as claimed in Claim 26, wherein the infection is caused by an organism resistant to vancomycin.

53. The compound or pharmaceutically acceptable salt thereof, or the pharmaceutical composition as claimed in Claim 26, wherein the infection is caused by an organism resistant to an antimicrobial peptide or a biosimilar therapeutic treatment.

54. The compound or pharmaceutically acceptable salt thereof, or the pharmaceutical composition as claimed in Claim 28, wherein the Gram-positive organism is selected from *S. aureus*, CoNS, *S. pneumoniae*, *S. pyogenes*, *S. agalactiae*, *E. faecalis* and *E. faecium*.

55. The compound or pharmaceutically acceptable salt thereof, or the pharmaceutical composition as claimed in Claim 33, wherein the Gram-negative organism is selected from selected from *H. influenza, M. catarrhalis* and *Legionella pneumophila*.

56. A compound of any one of Claims 1-24, or a pharmaceutically acceptable salt thereof, or the pharmaceutical composition of Claim 25 for use in the treatment of a repiratory infection.

57. The compound or pharmaceutically acceptable salt thereof, or the pharmaceutical composition as claimed in Claim 56, wherein the repiratory infection is Community-Acquired Bacterial Pneumonia (CABP).

58. The compound or pharmaceutically acceptable salt thereof, or the pharmaceutical composition as claimed in Claim 56 or Claim 57, wherein the respiratory infectionis caused by a bacterium selected from *S. aureus*, *S. pneumoniae*, *S. pyogenes*, *H. influenza, M. catarrhalis* and *Legionella pneumophila.*

59. A compound of any one of Claims 1-25, or a pharmaceutically acceptable salt thereof, or the pharmaceutical composition of Claim 26 for use in the treatment of a skin infection.

60. The compound or pharmaceutically acceptable salt thereof, or the pharmaceutical composition as claimed in Claim 59, wherein the skin infection is an acute bacterial skin and skin structure infection (ABSSSI).

61. The compound or pharmaceutically acceptable salt thereof, or the pharmaceutical composition as claimed in Claim 59 or Claim 60, wherein the skin infection is caused by a bacterium selected from *S. aureus*, CoNS, *S. pyogenes*, *S. agalactiae*, *E. faecalis* and *E. faecium*.

62. The use of a compound of any one of Claims 1-24, or a pharmaceutically acceptable salt thereof, or a pharmaceutical composition of Claim 25 in the manufacture of a medicament for the treatment of an infection or colonization.

63. The use of the compound or pharmaceutically acceptable salt thereof, or the pharmaceutical composition as claimed in Claim 62, wherein the infection iscaused by an organism that grows intracellularly as part of its infection process.

64. The use of the compound or pharmaceutically acceptable salt thereof, or the pharmaceutical composition as claimed in claim 62, wherein the infection is caused by a Gram-positive organism.

65. The use of the compound or pharmaceutically acceptable salt thereof, or the pharmaceutical composition as claimed in claim 64, wherein the Gram-positive organism is selected from the class Bacilli; phylum Actinobacteria; and class Clostridia.

66. The use of the compound or pharmaceutically acceptable salt thereof, or the pharmaceutical composition as claimed in claim 65, wherein the class Bacilli organism is selected from *Staphylococcus* spp., *Streptococcus* spp., *Enterococcus* spp., *Bacillus* spp., and *Listeria* spp.

67. The use of the compound or pharmaceutically acceptable salt thereof, or the pharmaceutical composition as claimed in Claim 65, wherein the class phylum Actinobacteria organism is selected from *Propionibacterium* spp., *Corynebacterium* spp., *Nocardia* spp., and *Actinobacteria* spp.

68. The use of the compound or pharmaceutically acceptable salt thereof, or the pharmaceutical composition as claimed in Claim 65, wherein the class Clostridia organism is selected from *Clostridium* spp.

69. The use of the compound or pharmaceutically acceptable salt thereof, or the pharmaceutical composition as claimed in Claim 62, wherein the infection is caused by a Gram-negative organism.

70. The use of the compound or pharmaceutically acceptable salt thereof, or the pharmaceutical composition as claimed in Claim 69, wherein the Gram-negative organism is 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.

71. The use of the compound or pharmaceutically acceptable salt thereof, or the pharmaceutical composition as claimed in Claim 62, wherein the infection is caused by an organism selected from order Rickettsiales and order Chlamydiales.

72. The use of the compound or pharmaceutically acceptable salt thereof, or the pharmaceutical composition as claimed in Claim 62, wherein the infection is caused by an organism selected from the phylum Chlamydiae and the phylum Spriochaetales.

73. The use of the compound or pharmaceutically acceptable salt thereof, or the pharmaceutical composition as claimed in Claim 72, wherein the phylum Spriochaetales organism is selected from *Borrelia* spp. and *Treponema* spp.

74. The use of the compound or pharmaceutically acceptable salt thereof, or the pharmaceutical composition as claimed in Claim 62, wherein the infection is caused by an organism selected from the class Mollicutes.

75. The use of the compound or pharmaceutically acceptable salt thereof, or the pharmaceutical composition as claimed in Claim 74 , wherein the class Mollicutes organism is selected from *Mycoplasma* spp.

76. The use of the compound or pharmaceutically acceptable salt thereof, or the pharmaceutical composition as claimed in Claim 75, wherein *Mycoplasma* spp. is *Mycoplasma pneumoniae.*

77. The use of the compound or pharmaceutically acceptable salt thereof, or the pharmaceutical composition as claimed in Claim 62, wherein the infection is caused by an organism selected from *Legionella* spp. and *Mycobacterium* spp.

78. The use of the compound or pharmaceutically acceptable salt thereof, or the pharmaceutical composition as claimed in Claim 77, wherein the *Mycobacterium* spp is *Mycobacterium tuberculosis.*

79. The use of the compound or pharmaceutically acceptable salt thereof, or the pharmaceutical composition as claimed in Claim 62, wherein the infection is caused by more than one organism.

80. The use of the compound or pharmaceutically acceptable salt thereof, or the pharmaceutical composition as claimed in Claim 62, wherein the infection is caused by an organism resistant to one or more antibiotics.

81. The use of the compound or pharmaceutically acceptable salt thereof, or the pharmaceutical composition as claimed in Claim 62, wherein the infection is

caused by an organism resistant to tetracycline or any member of first and second generation of tetracycline antibiotics.

82. The use of the compound or pharmaceutically acceptable salt thereof, or the pharmaceutical composition as claimed in Claim 62, wherein the infection is caused by an organism resistant to methicillin or any antibiotic in the β-lactam class.

83. The use of the compound or pharmaceutically acceptable salt thereof, or the pharmaceutical composition as claimed in Claim 82, wherein the β-lactam class is selected from second, third and fourth-generation cephalosporins.

84. The use of the compound or pharmaceutically acceptable salt thereof, or the pharmaceutical composition as claimed in Claim 62, wherein the infection is caused by an organism resistant to a quinolone or fluoroquinolone.

85. The use of the compound or pharmaceutically acceptable salt thereof, or the pharmaceutical composition as claimed in Claim 62, wherein the infection is caused by an organism resistant to tigecycline.

86. The use of the compound or pharmaceutically acceptable salt thereof, or the pharmaceutical composition as claimed in Claim 62, wherein the infection is caused by an organism resistant to tetracycline.

87. The use of the compound or pharmaceutically acceptable salt thereof, or the pharmaceutical composition as claimed in Claim 62, wherein the infection is caused by an organism resistant to methicillin.

88. The use of the compound or pharmaceutically acceptable salt thereof, or the pharmaceutical composition as claimed in Claim 62, wherein the infection is caused by an organism resistant to vancomycin.

89. The use of the compound or pharmaceutically acceptable salt thereof, or the pharmaceutical composition as claimed in Claim 62, wherein the infection is

caused by an organism resistant to an antimicrobial peptide or a biosimilar therapeutic treatment.

90. The use of the compound or pharmaceutically acceptable salt thereof, or the pharmaceutical composition as claimed in Claim 64, wherein the Gram-positive organism selected from *S. aureus*, CoNS, *S. pneumoniae*, *S. pyogenes*, *S. agalactiae*, *E. faecalis* and *E. faecium*.

91. The use of the compound or pharmaceutically acceptable salt thereof, or the pharmaceutical composition as claimed in Claim 69, wherein the Gram-negative organism is selected from *H. influenza, M. catarrhalis* and *Legionella pneumophila*.

92. The use of a compound of any one of Claims 1-24, or a pharmaceutically acceptable salt thereof, or the pharmaceutical composition of Claim 25 in the manufacture of a medicament for the treatment of a repiratory infection.

93. The use of the compound or pharmaceutically acceptable salt thereof, or the pharmaceutical composition as claimed in Claim 92, wherein the repiratory infection is Community-Acquired Bacterial Pneumonia (CABP).

94. The use of the compound or pharmaceutically acceptable salt thereof, or the pharmaceutical composition as claimed in Claim 92 or Claim 93, wherein the respiratory infection is caused by a bacterium selected from *S. aureus*, *S. pneumoniae*, *S. pyogenes*, *H. influenza, M. catarrhalis* and *Legionella pneumophila.*

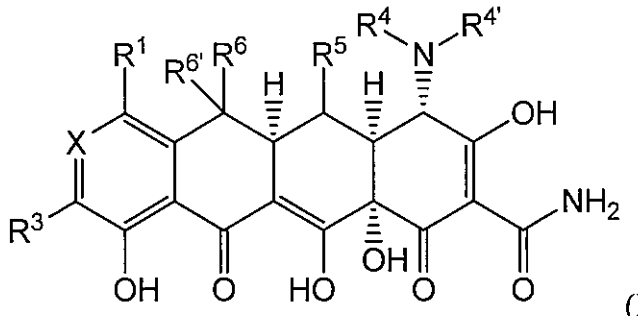
95. A compound of any one of Claims 1-25, or a pharmaceutically acceptable salt thereof, or the pharmaceutical composition of Claim 26 in the manufacture of a medicament for the treatment of a skin infection.

96. The use of the compound or pharmaceutically acceptable salt thereof, or the pharmaceutical composition as claimed in Claim 95, wherein the skin infection is an acute bacterial skin and skin structure infection (ABSSSI).

97. The use of the compound or pharmaceutically acceptable salt thereof, or the pharmaceutical composition as claimed in Claim 95 or Claim 96, wherein the skin infection is caused by a bacterium selected from *S. aureus*, CoNS, *S. pyogenes*, *S. agalactiae*, *E. faecalis* and *E. faecium*.

CLAIMS

1. A compound having Structural Formula (I):



(I),

or a pharmaceutically acceptable salt thereof, wherein:

X is $C(R^2)$, wherein R^2 is

$-(C_0\text{-}C_6$ alkylene)-heterocyclyl, wherein the heterocyclyl is unsubstituted or substituted on a nitrogen atom with $-(C_1\text{-}C_6$ alkyl),

$-(C_0\text{-}C_6$ alkylene)-carbocyclyl or

$-(C_1\text{-}C_6)$alkyl substituted with $NR^BR^{B'}$;

R^1 is selected from hydrogen, fluoro, chloro, CF_3 and OCF_3;

each of R^3, R^5 and R^6 is independently selected from hydrogen, halo, $-(C_1\text{-}C_6$ alkyl), $-OR^A$, $-C(O)NR^BR^{B'}$, $NR^BR^{B'}$, $S(O)_{0\text{-}2}R^C$, $-(C_0\text{-}C_6$ alkylene)-carbocyclyl, and $-(C_0\text{-}C_6$ alkylene)-heterocyclyl; or

R^4 is selected from hydrogen, methyl, ethyl, or propyl;

$R^{4'}$ is selected from hydrogen, ethyl, propyl, $-S(O)_2CH_3$, cyclopropyl, $-C(O)CH_3$ or $-C(O)CH_2N(CH_3)_2$;

$R^{6'}$ is selected from hydrogen, $-(C_1\text{-}C_6$ alkyl) and $-(C_3\text{-}C_6$ cycloalkyl);

each R^A is independently selected from hydrogen, $-(C_1\text{-}C_6$ alkyl), $-(C_0\text{-}C_6$ alkylene)-carbocyclyl, $-(C_0\text{-}C_6$ alkylene)-heterocyclyl, $-C(O)-(C_1\text{-}C_6$ alkyl), $-C(O)-(C_0\text{-}C_6$ alkylene)-carbocyclyl, $-C(O)-(C_0\text{-}C_6$ alkylene)-heterocyclyl, and $-C(O)N(R^D)(R^E)$;

each R^B and each $R^{B'}$ is independently selected from hydrogen, $-(C_1\text{-}C_6$ alkyl), $-(C_1\text{-}C_6$ haloalkyl), $-(C_0\text{-}C_6$ alkylene)-carbocyclyl, $-(C_0\text{-}C_6$ alkylene)-heterocyclyl, $-S(O)_{1\text{-}2}-(C_1\text{-}C_6$ alkyl), $-S(O)_{1\text{-}2}-(C_0\text{-}C_6$ alkylene)-carbocyclyl, $-S(O)_{1\text{-}2}-(C_0\text{-}C_6$ alkylene)-heterocyclyl, $-C(O)-(C_1\text{-}C_6$ alkyl), $-C(O)-(C_0\text{-}C_6$ alkylene)-carbocyclyl, -C(O)H, $-C(O)-(C_0\text{-}C_6$ alkylene)-heterocyclyl, and $-C(O)-(C_0\text{-}C_6$ alkylene)-$N(R^D)(R^E)$;

each R^C is independently selected from -(C_1-C_6 alkyl), -(C_0-C_6 alkylene)-carbocyclyl and -(C_0-C_6 alkylene)-heterocyclyl; and

each R^D and each R^E is independently selected from hydrogen, -(C_1-C_6 alkyl), -(C_0-C_6 alkylene)-carbocyclyl, and -(C_0-C_6 alkylene)-heterocyclyl,

wherein:

any alkyl, or alkylene portion of R^2, R^3, R^4, $R^{4'}$, R^5, R^6 is optionally and independently substituted with one or more substituents independently selected from halo, =O, OR^A, $NR^BR^{B'}$, and $S(O)_{0-2}R^C$;

any alkyl or alkylene portion of $R^{6'}$, R^A, or R^C, is optionally and independently substituted with one or more fluoro;

any carbocyclyl or heterocyclyl portion of any of R^2, R^3, R^5, R^6 is optionally and independently substituted on a carbon atom with one or more substituents independently selected from halo, =O, C_1-C_4 fluoroalkyl, C_1-C_4 alkyl, -(C_0-C_6 alkylene)-(C_3-C_{10} carbocyclyl), -(C_0-C_6 alkylene)-(4-13 membered heterocyclyl), OR^A, -(C_0-C_6 alkylene)-$NR^BR^{B'}$, and $S(O)_{0-2}R^C$;

any heterocyclyl portion of any of R^2, R^3, R^5, R^6 is optionally and independently substituted on a substitutable nitrogen atom with R^F;

each R^F is independently selected from -(C_1-C_6 alkyl), -(C_1-C_6 haloalkyl), -(C_1-C_6 hydroxyalkyl), -(C_0-C_6 alkylene)-carbocyclyl, -(C_0-C_6 alkylene)-heterocyclyl, -$S(O)_{1-2}$-(C_1-C_6 alkyl), -$S(O)_{1-2}$-(C_0-C_6 alkylene)-carbocyclyl, -$S(O)_{1-2}$-(C_0-C_6 alkylene)-heterocyclyl, -C(O)-(C_1-C_6 alkyl), -C(O)-(C_0-C_6 alkylene)-carbocyclyl, -C(O)H, -C(O)-(C_0-C_6 alkylene)-heterocyclyl, -(C_0-C_6 alkylene)-$C(O)_2$-(C_1-C_6 alkyl), -(C_1-C_6 alkylene)-$NR^BR^{B'}$ and -C(O)N(R^D)(R^E);

any carbocyclyl or heterocyclyl portion of R^A, R^B, $R^{B'}$, R^C, R^D, R^E, R^F, any cycloalkyl portion of $R^{6'}$, or any substituent of R^2, R^3, R^5, R^6 is optionally and independently substituted on a carbon atom with a one or more substituents independently selected from fluoro, chloro, C_1-C_4 alkyl, C_1-C_4 fluoroalkyl, -O-C_1-C_4 alkyl, -O-C_1-C_4 fluoroalkyl, =O, -OH, $-NH_2$, -NH(C_1-C_4 alkyl), and -N(C_1-C_4 alkyl)$_2$; and

any heterocyclyl portion of R^A, R^B, $R^{B'}$, R^C, R^D, R^E, R^F, or any heterocyclyl substituent of R^2, R^3, R^5, or R^6 is optionally substituted on a substitutable nitrogen atom with -C_1-C_4 alkyl, or -$S(O)_{1-2}$-(C_1-C_4 alkyl).

2. The compound of claim 1, wherein each of R^5, R^6 and $R^{6'}$ is hydrogen.

3. The compound of claim 1 or claim 2, wherein:

R^C is -(C_1-C_6 alkyl); and

each of R^D and R^E is independently selected from hydrogen and -(C_1-C_6 alkyl).

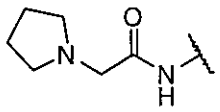
4. The compound of any one of claims 1 to 3, wherein R^3 is selected from hydrogen and -$N(R^B)(R^{B'})$, wherein R^B is hydrogen.

5. The compound of claim 1, wherein R^2 is pyrrolidinyl optionally substituted on a nitrogen atom with C_1-C_4 alkyl or benzyl.

6. The compound of any one of claims 1-5, wherein:

R^3 is selected from hydrogen and -$N(R^B)(R^{B'})$, wherein R^B is hydrogen and $R^{B'}$ is -C(O)-(C_0-C_6 alkylene)-heterocyclyl or -C(O)-(C_0-C_6 alkylene)-$N(R^D)(R^E)$.

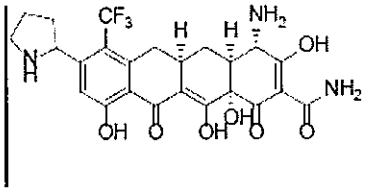
7. The compound of claim 6, wherein R^3 is selected from hydrogen



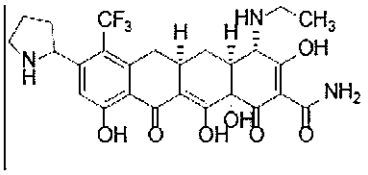
and .

8. A compound selected from any one of the following compounds:

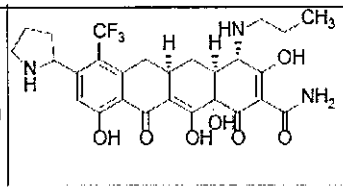
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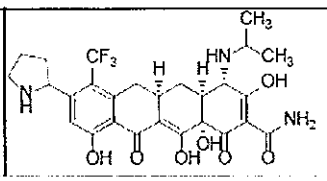
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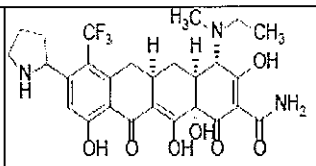
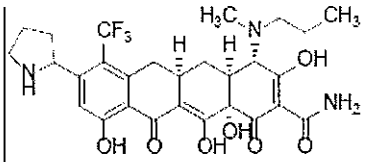
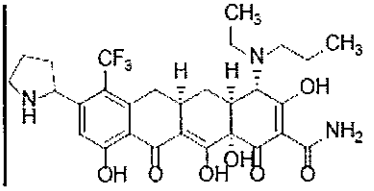
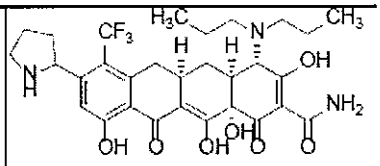
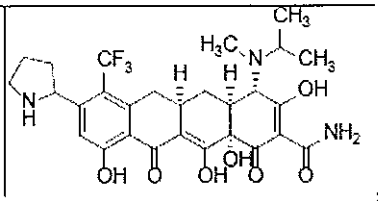
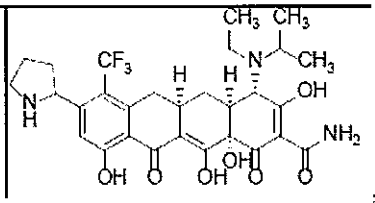
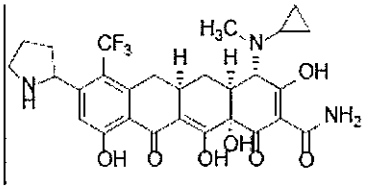
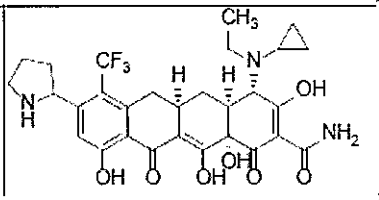
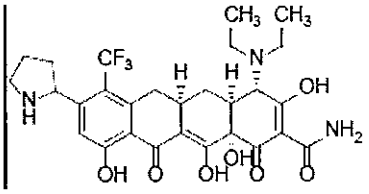
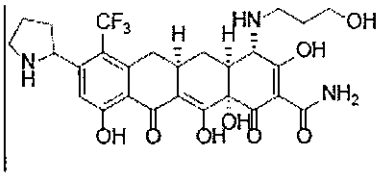
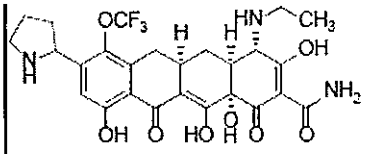
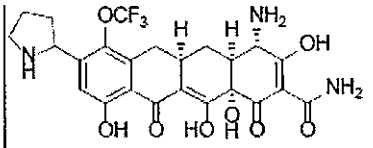
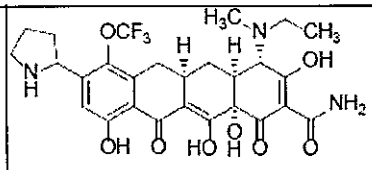
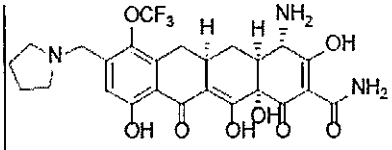
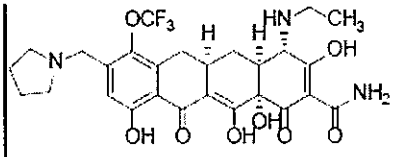
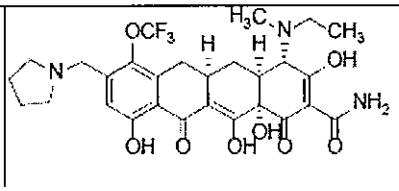
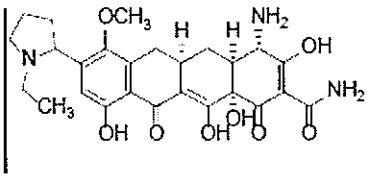
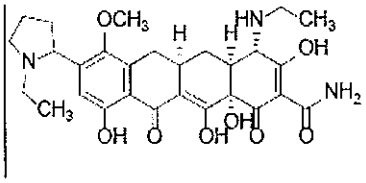


S4-14-3 (diastereomer A)

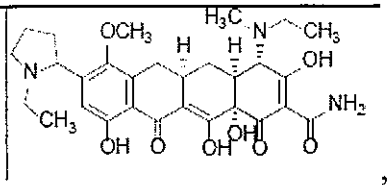


S4-14-4 (diastereomer A)

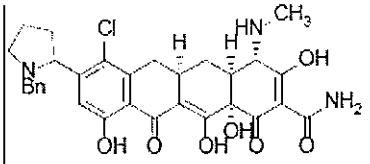


S4-14-5-A (diastereomer A) S4-14-5-B (diastereomer B)	
S4-14-7 (diastereomer A)	
S4-14-8 (diastereomer A)	
S4-14-9 (diastereomer A)	
S4-14-10 (diastereomer A)	
S4-14-11 (diastereomer A)	
S4-14-12 (diastereomer A)	
S4-14-13 (diastereomer A)	
S4-14-14-A (diastereomer A) S4-14-14-B (diastereomer B)	
S4-14-16 (diastereomer A)	
S7-14-2-A (diastereomer A)	
S7-14-1-A (diastereomer A) S7-14-1-B (diastereomer B)	
S7-14-3-A (diastereomer A)	
S8-4-1	
S8-4-2	
S8-4-3	
S10-4-1 (single diastereomer)	
S10-4-2 (single diastereomer)	

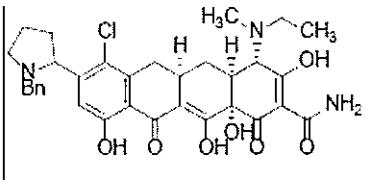
S10-4-3 (single diastereomer)



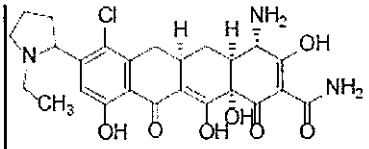
S14-8-1



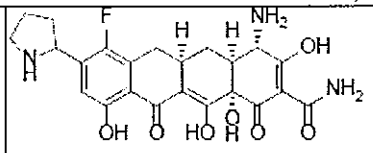
S14-8-2



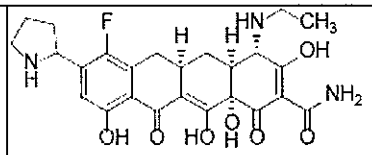
S14-8-3-A (diastereomer A)
S14-8-3-B (diastereomer B)



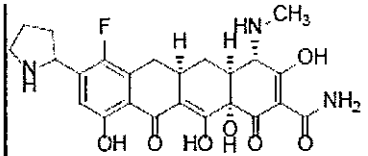
S19-7-1-B (diastereomer B)



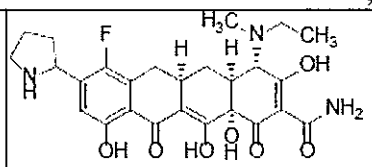
S19-7-2



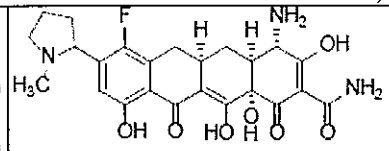
S19-7-3-A (diastereomer A)
S19-7-3-B (diastereomer B)



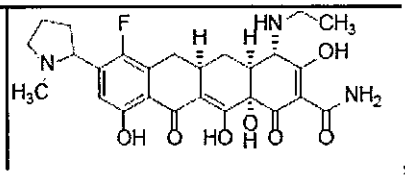
S19-7-4-A (diastereomer A)
S19-7-4-B (diastereomer B)



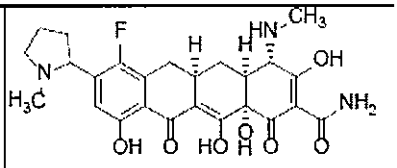
S19-7-5-A (diastereomer A)
S19-7-5-B (diastereomer B)



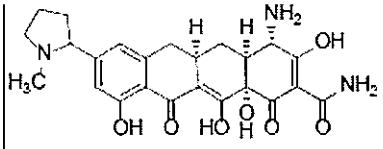
S19-7-6



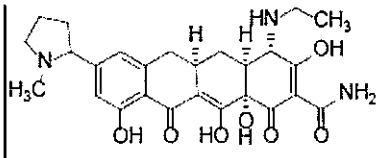
S19-7-7-A (diastereomer A)
S19-7-7-B (diastereomer B)



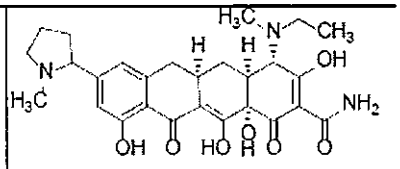
S20-4-1 (single diastereomer)



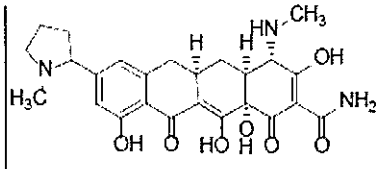
S20-4-2 (single diastereomer)



S20-4-3 (single diastereomer)



S20-4-4 (single diastereomer)



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. A compound of any one of Claims 1-8, or a pharmaceutically acceptable salt thereof, or a pharmaceutical composition of Claim 9, for use in the treatment of an infection or colonization.

11. The compound or pharmaceutically acceptable salt thereof, or the pharmaceutical composition as claimed in Claim 10, wherein the infection is caused by an organism that grows intracellularly as part of its infection process.

12. The compound or pharmaceutically acceptable salt thereof, or the pharmaceutical composition as claimed in Claim 10, wherein the infection is caused by a Gram-positive organism.

13. The compound or pharmaceutically acceptable salt thereof, or the pharmaceutical composition as claimed in Claim 12, wherein the Gram-positive organism is selected from the class Bacilli; phylum Actinobacteria; and class Clostridia.

14. The compound or pharmaceutically acceptable salt thereof, or the pharmaceutical composition as claimed in Claim 13, wherein the class Bacilli organism is selected from *Staphylococcus* spp., *Streptococcus* spp., *Enterococcus* spp., *Bacillus* spp., and *Listeria* spp.

15. The compound or pharmaceutically acceptable salt thereof, or the pharmaceutical composition as claimed in Claim 13, wherein the class phylum Actinobacteria organism is selected from *Propionibacterium* spp., *Corynebacterium* spp., *Nocardia* spp., and *Actinobacteria* spp.

16. The compound or pharmaceutically acceptable salt thereof, or the pharmaceutical composition as claimed in Claim 13, wherein the class Clostridia organism is selected from *Clostridium* spp.

17. The compound or pharmaceutically acceptable salt thereof, or the pharmaceutical composition as claimed in Claim 10, wherein the infection is caused by a Gram-negative organism.

18. The compound or pharmaceutically acceptable salt thereof, or the pharmaceutical composition as claimed in Claim 17, wherein the Gram-negative organism is 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.

19. The compound or pharmaceutically acceptable salt thereof, or the pharmaceutical composition as claimed in Claim 10, wherein the infection is caused by an organism selected from order Rickettsiales and order Chlamydiales.

20. The compound or pharmaceutically acceptable salt thereof, or the pharmaceutical composition as claimed in Claim 10, wherein the infection is caused by an organism selected from the phylum Chlamydiae and phylum Spriochaetales.

21. The compound or pharmaceutically acceptable salt thereof, or the pharmaceutical composition as claimed in Claim 20, wherein the phylum Spriochaetales organism is selected from *Borrelia* spp. and *Treponema* spp.

22. The compound or pharmaceutically acceptable salt thereof, or the pharmaceutical composition as claimed in Claim 10, wherein the infection is caused by an organism selected from the class Mollicutes.

23. The compound or pharmaceutically acceptable salt thereof, or the pharmaceutical composition as claimed in Claim 22, wherein the class Mollicutes organism is selected from *Mycoplasma* spp.

24. The compound or pharmaceutically acceptable salt thereof, or the pharmaceutical composition as claimed in Claim 23, wherein *Mycoplasma* spp. is *Mycoplasma pneumoniae.*

25. The compound or pharmaceutically acceptable salt thereof, or the pharmaceutical composition as claimed in Claim 10, wherein the infection is caused by an organism selected from *Legionella* spp. and *Mycobacterium* spp.

26. The compound or pharmaceutically acceptable salt thereof, or the pharmaceutical composition as claimed in Claim 25, wherein the *Mycobacterium* spp is *Mycobacterium tuberculosis.*

27. The compound or pharmaceutically acceptable salt thereof, or the pharmaceutical composition as claimed in Claim 10, wherein the infection is caused by more than one organism.

28. The compound or pharmaceutically acceptable salt thereof, or the pharmaceutical composition as claimed in Claim 10, wherein the infection is caused by an organism resistant to one or more antibiotics.

29. The compound or pharmaceutically acceptable salt thereof, or the pharmaceutical composition as claimed in Claim 10, wherein the infection is caused by an organism resistant to tetracycline or any member of first and second generation of tetracycline antibiotics.

30. The compound or pharmaceutically acceptable salt thereof, or the pharmaceutical composition as claimed in Claim 10, wherein the infection is caused by an organism resistant to methicillin or any antibiotic in the β-lactam class.

31. The compound or pharmaceutically acceptable salt thereof, or the pharmaceutical composition as claimed in Claim 30, wherein the β-lactam class is selected from second, third and fourth-generation cephalosporins.

32. The compound or pharmaceutically acceptable salt thereof, or the pharmaceutical composition as claimed in Claim 10, wherein the infection is caused by an organism resistant to a quinolone or fluoroquinolone.

33. The compound or pharmaceutically acceptable salt thereof, or the pharmaceutical composition as claimed in Claim 10, wherein the infection is caused by an organism resistant to tigecycline.

34. The compound or pharmaceutically acceptable salt thereof, or the pharmaceutical composition as claimed in Claim 10, wherein the infection is caused by an organism resistant to tetracycline.

35. The compound or pharmaceutically acceptable salt thereof, or the pharmaceutical composition as claimed in Claim 10, wherein the infection is caused by an organism resistant to methicillin.

36. The compound or pharmaceutically acceptable salt thereof, or the pharmaceutical composition as claimed in Claim 10, wherein the infection is caused by an organism resistant to vancomycin.

37. The compound or pharmaceutically acceptable salt thereof, or the pharmaceutical composition as claimed in Claim 10, wherein the infection is caused by an organism resistant to an antimicrobial peptide or a biosimilar therapeutic treatment.

38. The compound or pharmaceutically acceptable salt thereof, or the pharmaceutical composition as claimed in Claim 12, wherein the Gram-positive organism is selected from *S. aureus*, CoNS, *S. pneumoniae*, *S. pyogenes*, *S. agalactiae*, *E. faecalis* and *E. faecium*.

39. The compound or pharmaceutically acceptable salt thereof, or the pharmaceutical composition as claimed in Claim 17, wherein the Gram-negative organism is selected from selected from *H. influenza, M. catarrhalis* and *Legionella pneumophila*.

40. A compound of any one of Claims 1-8, or a pharmaceutically acceptable salt thereof, or the pharmaceutical composition of Claim 9 for use in the treatment of a respiratory infection.

41. The compound or pharmaceutically acceptable salt thereof, or the pharmaceutical composition as claimed in Claim 40, wherein the respiratory infection is Community-Acquired Bacterial Pneumonia (CABP).

42. The compound or pharmaceutically acceptable salt thereof, or the pharmaceutical composition as claimed in Claim 40 or Claim 41, wherein the respiratory infection is caused by a bacterium selected from *S. aureus*, *S. pneumoniae*, *S. pyogenes*, *H. influenza, M. catarrhalis* and *Legionella pneumophila.*

43. A compound of any one of Claims 1-8, or a pharmaceutically acceptable salt thereof, or the pharmaceutical composition of Claim 9 for use in the treatment of a skin infection.

44. The compound or pharmaceutically acceptable salt thereof, or the pharmaceutical composition as claimed in Claim 43, wherein the skin infection is an acute bacterial skin and skin structure infection (ABSSSI).

45. The compound or pharmaceutically acceptable salt thereof, or the pharmaceutical composition as claimed in Claim 43 or Claim 44, wherein the skin infection is caused by a bacterium selected from *S. aureus*, CoNS, *S. pyogenes*, *S. agalactiae*, *E. faecalis* and *E. faecium*.