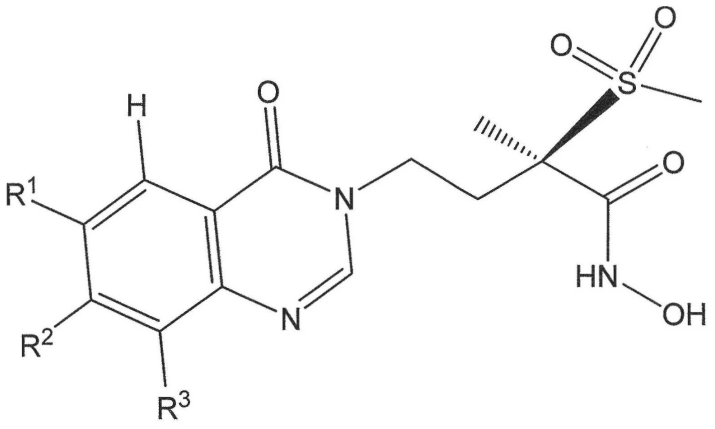
The instant invention provides new antibacterial quinazoline-4(*3H*)-one derivatives, namely the compounds of formula I described herein.

Summary

In one aspect, there is provided a compound of formula I



I

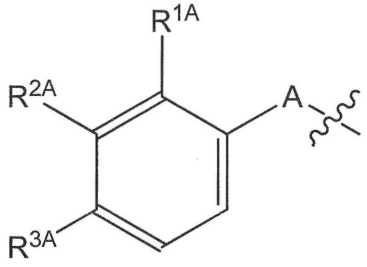
wherein

R^1 is H or halogen;

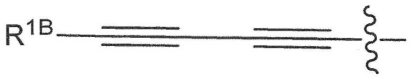
R^2 is the group M;

R^3 is H or halogen;

M is one of the groups M^A and M^B represented below



M^A



M^B

wherein A represents a bond or C≡C;

R^{1A} is H or halogen;

R^{2A} is H, (C_1-C_3)alkoxy or halogen;

R^{3A} is H, (C_1-C_3)alkoxy, hydroxy(C_2-C_4)alkoxy, hydroxy(C_1-C_4)alkyl, 1,2-dihydroxyethyl, di(C_1-C_3)alkylamino, 1-hydroxymethyl-cycloprop-1-yl, 1-((dimethylglycyl)oxy)methyl-

cycloprop-1-yl, 3-hydroxyoxetan-3-yl, morpholin-4-yl-(C_1-C_2)alkyl or morpholin-4-yl(C_2-C_3)alkoxy; and

R^{1B} is hydroxy(C_1-C_3)alkyl, amino(C_1-C_3)alkyl, [di(C_1-C_3)alkylamino]-(C_1-C_3)alkyl, 1,2-dihydroxyprop-3-yl, 1-amino-cycloprop-1-yl, 1-hydroxymethyl-cycloprop-1-yl, 1-((phosphonooxy)methyl)cycloprop-1-yl, *trans*-2-hydroxymethyl-cycloprop-1-yl, *trans*-2-aminomethyl-cycloprop-1-yl, 1-fluoro-2-hydroxymethyl-cycloprop-1-yl, *trans*-2-hydroxymethyl-1-methyl-cycloprop-1-yl, 2-fluoro-2-hydroxymethyl-cycloprop-1-yl, *trans*-2-hydroxymethyl-2-methyl-cycloprop-1-yl, 1-(1,2-dihydroxyethyl)-cycloprop-1-yl, *trans*-2-(1,2-dihydroxyethyl)-cycloprop-1-yl, 1-(hydroxymethyl)cyclobut-1-yl, 3-hydroxyoxetan-3-yl, 3-(hydroxy(C_1-C_3)alkyl)oxetan-3-yl, 3-hydroxythietan-3-yl, *trans*-(*cis*-3,4-dihydroxy)-cyclopent-1-yl, 3-(2-aminoacetamido)cyclopentyl, 3-hydroxymethylbicyclo[1,1,1]pentan-1-yl or 3-hydroxyoxetan-3-ylmethyl;

or a salt of this compound.

In another aspect, there is provided a compound of formula I as defined herein, or a pharmaceutically acceptable salt thereof, for use as a medicament.

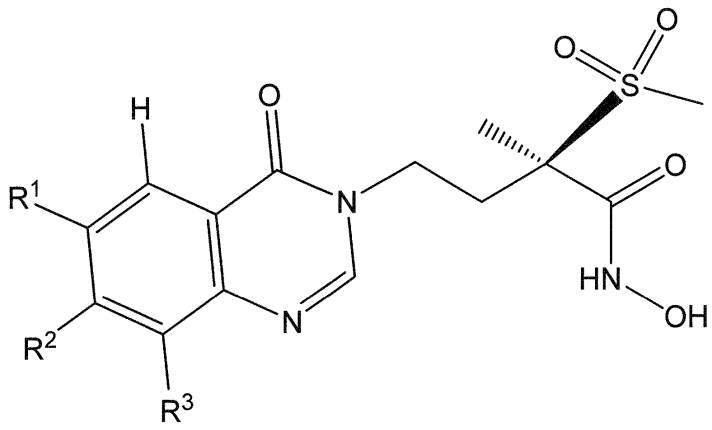
In a further aspect, there is provided a pharmaceutical composition containing, as active principle, a compound of formula I as defined herein, or a pharmaceutically acceptable salt thereof, and at least one therapeutically inert excipient.

In yet another aspect, there is provided a use of a compound of formula I as defined herein, or a pharmaceutically acceptable salt thereof in the manufacture of a medicament, for the prevention or treatment of a bacterial infection.

Detailed Disclosure of Embodiments

Various embodiments of the invention are presented hereafter:

1) The invention relates to compounds of formula I



I

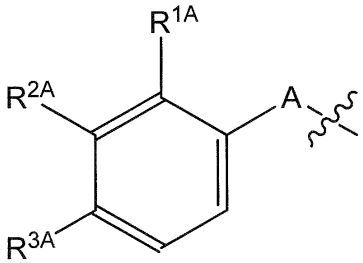
wherein

R^1 is H or halogen;

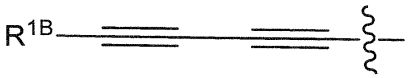
R^2 is the group M;

R^3 is H or halogen;

M is one of the groups M^A and M^B represented below



M^A



M^B

wherein A represents a bond or C≡C;

R^{1A} is H or halogen;

R^{2A} is H, (C_1-C_3)alkoxy or halogen;

R^{3A} is H, (C_1-C_3)alkoxy, hydroxy(C_2-C_4)alkoxy, hydroxy(C_1-C_4)alkyl, 1,2-dihydroxyethyl, di(C_1-C_3)alkylamino, 1-hydroxymethyl-cycloprop-1-yl, 1-((dimethylglycyl)oxy)methyl-

- (*R*)-4-(7-(5-(dimethylamino)penta-1,3-diyn-1-yl)-6-fluoro-4-oxoquinazolin-3(4*H*)-yl)-*N*-hydroxy-2-methyl-2-(methylsulfonyl)butanamide;
- (*R*)-4-(7-(((1*R**,2*R**)-2-fluoro-2-(hydroxymethyl)cyclopropyl)buta-1,3-diyn-1-yl)-4-oxoquinazolin-3(4*H*)-yl)-*N*-hydroxy-2-methyl-2-(methylsulfonyl)butanamide;
- (*R*)-4-(6-fluoro-7-((1-(hydroxymethyl)cyclobutyl)buta-1,3-diyn-1-yl)-4-oxoquinazolin-3(4*H*)-yl)-*N*-hydroxy-2-methyl-2-(methylsulfonyl)butanamide; and
- (*R*)-4-(6-fluoro-7-(5-(3-hydroxyoxetan-3-yl)penta-1,3-diyn-1-yl)-4-oxoquinazolin-3(4*H*)-yl)-*N*-hydroxy-2-methyl-2-(methylsulfonyl)butanamide;

or a salt of this compound.

12. A compound of formula I as defined in one of claims 1 to 11, or a pharmaceutically acceptable salt thereof, for use as a medicament.

13. A pharmaceutical composition containing, as active principle, a compound of formula I as defined in one of claims 1 to 11, or a pharmaceutically acceptable salt thereof, and at least one therapeutically inert excipient.

14. Use of a compound of formula I as defined in one of claims 1 to 11, or a pharmaceutically acceptable salt thereof in the manufacture of a medicament, for the prevention or treatment of a bacterial infection.

15. The use according to claim 14, which is for the prevention or treatment of a Gram-negative bacterial infection.