

[0009] Finally the Orexin/OX<sub>1</sub> pathway has been implicated in nicotine self-administration (33, 34) and re-instatement of nicotine seeking (35, 36). Such data suggest that OX<sub>1</sub> antagonists could find utility as smoking cessation therapies.

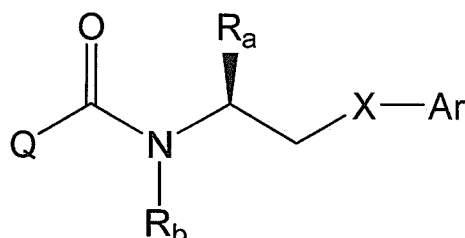
5 [0010] Taken together the orexin system, in particular the OX<sub>1</sub> pathway may be considered a target for the treatment of reward seeking behaviours, addiction and related disorders.

[0011] There is therefore a need for compounds capable of attenuating orexin-1 (OX<sub>1</sub>) activity. There is a further need for compounds capable of selectively modulating orexin-1 (OX<sub>1</sub>) function.

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### **SUMMARY OF THE INVENTION**

[0012] In one aspect, the present invention provides a compound of Formula I



(I)

15 wherein:

R<sub>a</sub> is ethyl, propyl, isopropyl, cyclopropyl, n-butyl, isobutyl, sec-butyl, t-butyl, or cyclopropylmethyl, each of which is optionally substituted by one or more fluoro;

R<sub>b</sub> is selected from:

- (i) hydrogen;
- 20 (ii) a (1-4C)alkyl which is optionally substituted by one or more fluoro;
- (iii) a (3-6C)cycloalkyl which is optionally substituted by one or more fluoro; or
- (iv) a (3-6C)cycloalkyl(1-2C)alkyl which is optionally substituted by one or more fluoro;

X is a group:



Wherein

X<sup>0</sup> is selected from -O-, -N(R<sup>1</sup>)-, -N(R<sup>1</sup>)C(O)N(R<sup>1</sup>)- or -S-;

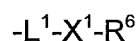
n is 0 or 1;

R1 is selected from hydrogen or a (1-2C)alkyl group which is optionally substituted by one or more substituents selected from fluoro, hydroxyl, NR<sub>1a</sub>R<sub>1b</sub>, (1-2C)alkoxy or (1-2C)haloalkoxy;

- 5 R1a and R1b are each independently selected from hydrogen or (1-2C)alkyl or R1a and R1b are linked such that, together with the nitrogen atom to which they are attached, they form a 4, 5 or 6 membered heterocyclic ring;

R2b and R3b are hydrogen;

- 10 Ar is aryl or heteroaryl, each of which is optionally substituted with one or more substituents selected from the group consisting of halo, cyano, nitro or a group of the formula:



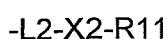
wherein

- 15 L<sup>1</sup> is absent or a linker group of the formula  $-[CR^7R^8]_r-$  in which r is an integer selected from 1, 2, 3 or 4, and R<sup>7</sup> and R<sup>8</sup> are each independently selected from hydrogen, halo, hydroxy or a (1-4C)alkyl, (3-6C)cycloalkyl, (3-6C)cycloalkyl(1-2C)alkyl group which is optionally substituted by one or more fluoro substituents; or R<sup>7</sup> and R<sup>8</sup> are optionally linked to such that, together with the carbon atom to which they are attached, they form a (3-6C)cycloalkyl ring which is optionally substituted by one or more fluoro substituents;

- 20 X1 is absent or selected from -O-, -C(O)-, -C(O)O-, -OC(O)-, -N(R<sub>9</sub>)-, -N(R<sub>9</sub>)-C(O)-, -C(O)-N(R<sub>9</sub>)-, -N(R<sub>9</sub>)-C(O)O-, -OC(O)-N(R<sub>9</sub>)-, -N(R<sub>9</sub>)C(O)N(R<sub>10</sub>)-, -S-, -SO-, -SO<sub>2</sub>-, -S(O)<sub>2</sub>N(R<sub>9</sub>)-, -N(R<sub>9</sub>)SO<sub>2</sub>- or -S(O)(=NR<sub>10</sub>)-, wherein R<sub>9</sub> and R<sub>10</sub> are selected from hydrogen, (1-4C)alkyl, (1-4C)fluoroalkyl or (3-6C)cycloalkyl; and

- 25 R<sub>6</sub> is hydrogen, (1-6C)alkyl, (2-6C)alkenyl, (2-6C)alkynyl, aryl, aryl(1-2C)alkyl, (3-6C)cycloalkyl, (3-6C)cycloalkyl(1-2C)alkyl, heterocyclyl, heterocyclyl-(1-2C)alkyl, heteroaryl, or heteroaryl-(1-2C)alkyl,

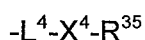
- 30 and wherein R<sub>6</sub> is optionally further substituted by one or more substituent groups independently selected from oxo, halo, cyano, nitro, or a group of the formula:



wherein

R30 is hydrogen, (1-6C)alkyl, (2-6C)alkenyl, (2-6C)alkynyl, aryl, aryl(1-2C)alkyl, (3-6C)cycloalkyl, (3-6C)cycloalkyl(1-2C)alkyl, heterocyclyl, heterocyclyl-(1-2C)alkyl, heteroaryl, or heteroaryl-(1-2C)alkyl,

5 and wherein R<sup>30</sup> is optionally further substituted by one or more substituent groups independently selected from oxo, halo, cyano, nitro, or a group of the formula:



Wherein

10 L4 is absent or a linker group of the formula  $-[CR^{36}R^{37}]_u-$  in which u is an integer selected from 1, 2, 3 or 4, and R36 and R37 are each independently selected from hydrogen or a (1-4C)alkyl, (3-6C)cycloalkyl, (3-6C)cycloalkyl(1-2C)alkyl group which is optionally substituted by one or more fluoro substituents; or R36 and R37 are optionally linked to such that, together with the carbon atom to which they are attached, they form  
15 a (3-6C)cycloalkyl ring which is optionally substituted by one or more fluoro substituents;

X4 is absent or selected from -O-, -C(O)-, -C(O)O-, -OC(O)-, -N(R38)-, -N(R38)-C(O)-, -C(O)-N(R38)-, -N(R38)-C(O)O-, -OC(O)-N(R38)-, -N(R38)C(O)N(R39)-, -S-, -SO-, -SO2-, -S(O)2N(R38)-, -N(R38)SO2- or  
20 -S(O)(=NR38)-, wherein R38 and R39 are selected from hydrogen, (1-4C)alkyl, (1-4C)fluoroalkyl or (3-6C)cycloalkyl; and

R35 is hydrogen or a (1-6C)alkyl, (3-6C)cycloalkyl, (3-6C)cycloalkyl(1-2C)alkyl group which is optionally substituted by one or more fluoro substituents;

25 or a pharmaceutically acceptable salt or solvate thereof, provided that the compound of Formula I is not one of the following compounds:

*N*<sup>2</sup>-(4-methoxy-benzoyl)-*N*<sup>1</sup>-[3-(4-methylbenzyl)-[1,2,4]thiadiazol-5-yl]-1,2-diamino butane;

*N*<sup>2</sup>-(4-methoxy-benzoyl)-*N*<sup>1</sup>-[3-(4-fluorobenzyl)-[1,2,4]thiadiazol-5-yl]-1,2-diamino butane;

30 *N*<sup>2</sup>-(4-methoxy-benzoyl)-*N*<sup>1</sup>-[3-(3-methoxybenzyl)-[1,2,4]thiadiazol-5-yl]-1,2-diamino butane;

*N*<sup>2</sup>-(4-methoxy-benzoyl)-*N*<sup>1</sup>-[3-(3-fluorobenzyl)-[1,2,4]thiadiazol-5-yl]-1,2-diamino butane;

*N*<sup>2</sup>-(4-methoxy-benzoyl)-*N*<sup>1</sup>-[3-(2-fluorobenzyl)-[1,2,4]thiadiazol-5-yl]-1,2-diamino butane;

*N*<sup>2</sup>-(4-methoxy-benzoyl)-*N*<sup>1</sup>-[3-(3-benzyl)-[1,2,4]thiadiazol-5-yl]-1,2-diamino butane;

35 *N*<sup>2</sup>-(4-methoxy-benzoyl)-*N*<sup>1</sup>-[3-(3-methylbenzyl)-[1,2,4]thiadiazol-5-yl]-1,2-diamino butane;

- $N^2$ -(4-methoxy-benzoyl)- $N^1$ -[3-(2-methylbenzyl)-[1,2,4]thiadiazol-5-yl]-1,2-diamino butane;  
 $N^2$ -(4-methoxy-benzoyl)- $N^1$ -[3-(2-methoxybenzyl)-[1,2,4]thiadiazol-5-yl]-1,2-diamino butane;  
 $N^2$ -(4-methoxy-benzoyl)- $N^1$ -[3-(4-methoxybenzyl)-[1,2,4]thiadiazol-5-yl]-1,2-diamino butane;  
 $N^2$ -(4-methoxy-benzoyl)- $N^1$ -[3-(3-methyl-4-fluorobenzyl)-[1,2,4]thiadiazol-5-yl]-1,2-diamino butane;  
 $N^2$ -(4-methoxy-benzoyl)- $N^1$ -[3-(4-chlorobenzyl)-[1,2,4]thiadiazol-5-yl]-1,2-diamino butane;  
 $N^2$ -(4-methoxy-benzoyl)- $N^1$ -[3-(4-methylbenzyl)-[1,2,4]thiadiazol-5-yl]-1,2-diamino pentane;  
 $N^2$ -(4-methoxy-benzoyl)- $N^1$ -[3-(4-fluorobenzyl)-[1,2,4]thiadiazol-5-yl]-1,2-diamino pentane;  
 $N^2$ -(4-methoxy-benzoyl)- $N^1$ -[3-(3-methoxybenzyl)-[1,2,4]thiadiazol-5-yl]-1,2-diamino pentane;  
 $N^2$ -(4-methoxy-benzoyl)- $N^1$ -[3-(3-fluorobenzyl)-[1,2,4]thiadiazol-5-yl]-1,2-diamino pentane;  
 $N^2$ -(4-methoxy-benzoyl)- $N^1$ -[3-(2-fluorobenzyl)-[1,2,4]thiadiazol-5-yl]-1,2-diamino pentane;  
 $N^2$ -(4-methoxy-benzoyl)- $N^1$ -[3-(3-benzyl)-[1,2,4]thiadiazol-5-yl]-1,2-diamino pentane;  
 $N^2$ -(4-methoxy-benzoyl)- $N^1$ -[3-(3-methylbenzyl)-[1,2,4]thiadiazol-5-yl]-1,2-diamino pentane;  
 $N^2$ -(4-methoxy-benzoyl)- $N^1$ -[3-(2-methylbenzyl)-[1,2,4]thiadiazol-5-yl]-1,2-diamino pentane;  
 $N^2$ -(4-methoxy-benzoyl)- $N^1$ -[3-(2-methoxybenzyl)-[1,2,4]thiadiazol-5-yl]-1,2-diamino pentane;  
 $N^2$ -(4-methoxy-benzoyl)- $N^1$ -[3-(4-methoxybenzyl)-[1,2,4]thiadiazol-5-yl]-1,2-diamino pentane;  
 $N^2$ -(4-methoxy-benzoyl)- $N^1$ -[3-(3-methyl-4-fluorobenzyl)-[1,2,4]thiadiazol-5-yl]-1,2-diamino pentane; or  
 $N^2$ -(4-methoxy-benzoyl)- $N^1$ -[3-(4-chlorobenzyl)-[1,2,4]thiadiazol-5-yl]-1,2-diamino pentane. Also disclosed is a compound, or a pharmaceutically acceptable salt or solvate thereof as defined herein.

**[0012a]** In another aspect, the present invention provides a compound which is selected from any one of the following:

- (S)-N-(1-((5-chloropyridin-2-yl)amino)butan-2-yl)-N,5-dimethyl-2-(2H-1,2,3-triazol-2-yl)benzamide;  
(S)-N-(1-((5-chloropyridin-2-yl)amino)butan-2-yl)-5-methyl-2-(2H-1,2,3-triazol-2-yl)benzamide;  
(S)-N-(1-((5-chloropyridin-2-yl)amino)butan-2-yl)-N-methyl-[1,1'-biphenyl]-2-carboxamide;  
(S)-N-(1-((5-chloropyridin-2-yl)amino)-3-methylbutan-2-yl)-[1,1'-biphenyl]-2-carboxamide;

- (S)-N-methyl-N-(1-((5-(trifluoromethyl)pyrimidin-2-yl)amino)butan-2-yl)quinoline-8-carboxamide;
- (S)-6-chloro-N-methyl-N-(1-((5-(trifluoromethyl)pyrimidin-2-yl)amino)butan-2-yl)quinoline-8-carboxamide;
- 5 (S)-3-(dimethylamino)-N-methyl-N-(1-((5-(trifluoromethyl)pyrimidin-2-yl)amino)butan-2-yl)isoquinoline-1-carboxamide;
- (S)-N,6-dimethyl-N-(1-(methyl(5-(trifluoromethyl)pyrimidin-2-yl)amino)butan-2-yl)-3-(2H-1,2,3-triazol-2-yl)picolinamide;
- (S)-N-(1-((2-methoxyethyl)(5-(trifluoromethyl)pyrimidin-2-yl)amino)butan-2-yl)-N,6-
- 10 dimethyl-3-(2H-1,2,3-triazol-2-yl)picolinamide;
- (S)-N,6-dimethyl-3-(pyrimidin-2-yl)-N-(1-((5-(trifluoromethyl)pyrimidin-2-yl)amino)butan-2-yl)picolinamide formic acid salt;
- (S)-N-methyl-N-(1-((5-(trifluoromethyl)pyrimidin-2-yl)amino)butan-2-yl)isoquinoline-1-carboxamide;
- 15 (S)-N-(1-((5-chloropyridin-2-yl)amino)butan-2-yl)-N,4,5-trimethyl-2-(2H-1,2,3-triazol-2-yl)benzamide;
- (S)-N-(1-((5-chloropyridin-2-yl)amino)butan-2-yl)-5-methoxy-N,4-dimethyl-2-(2H-1,2,3-triazol-2-yl)benzamide;
- (S)-N,6-dimethyl-3-(2H-1,2,3-triazol-2-yl)-N-(4,4,4-trifluoro-1-((5-
- 20 (trifluoromethyl)pyrimidin-2-yl)amino)butan-2-yl)picolinamide;
- (S)-N,6-dimethyl-3-(1H-1,2,4-triazol-1-yl)-N-(1-((5-(trifluoromethyl)pyrimidin-2-yl)amino)butan-2-yl)picolinamide formic acid salt;
- (S)-N,6-dimethyl-3-(1H-pyrazol-1-yl)-N-(1-((5-(trifluoromethyl)pyrimidin-2-yl)amino)butan-2-yl)picolinamide formic acid salt;
- 25 (S)-2-fluoro-N-methyl-6-(2H-1,2,3-triazol-2-yl)-N-(1-((5-(trifluoromethyl)pyrimidin-2-yl)amino)butan-2-yl)benzamide;
- (S)-6-methoxy-N-methyl-3-(2H-1,2,3-triazol-2-yl)-N-(1-((5-(trifluoromethyl)pyrimidin-2-yl)amino)butan-2-yl)picolinamide; or a pharmaceutically acceptable salt or solvate thereof.
- 30 **[0013]** In yet another aspect, the present invention provides a pharmaceutical composition comprising a compound of the invention as defined herein, or a pharmaceutically acceptable salt or solvate thereof, and one or more pharmaceutically acceptable excipients.
- [0014]** In yet another aspect, the present invention relates to a compound of the invention as defined herein, or a pharmaceutically acceptable salt or solvate thereof, or a
- 35 pharmaceutical composition as defined herein, for use in therapy.

**[0015]** In yet another aspect, the present invention relates to a compound as described herein, for use in the treatment of schizophrenia and other psychotic disorders; dementia and other cognitive disorders; anxiety disorders; mood disorders; addiction including substance dependence, alcohol dependence, nicotine dependence or gambling disorder; eating disorders; sleep disorders; disorders usually first diagnosed in infancy, childhood, or adolescence; restless leg syndrome; pain; osteoporosis and neurodegenerative disorders. Also disclosed is a compound of the invention as defined herein, or a pharmaceutically acceptable salt or solvate thereof, or a pharmaceutical composition as defined herein, for use in the treatment of diseases or conditions in which orexin-1 (OX<sub>1</sub>) activity is implicated.

**[0016]** Also disclosed is the use of a compound of the invention as defined herein, or a pharmaceutically acceptable salt or solvate thereof, in the manufacture of a medicament for use in the treatment of diseases or conditions in which orexin-1 (OX<sub>1</sub>) activity is implicated.

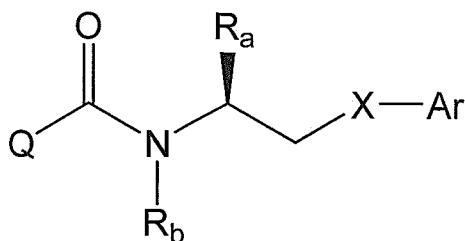
**[0017]** In yet another aspect, the present invention relates to use of a compound as described herein, or a pharmaceutically acceptable salt or solvate thereof in the manufacture of a medicament for treating a disease or condition selected from schizophrenia and other psychotic disorders; dementia and other cognitive disorders; anxiety disorders; mood disorders; addiction including substance dependence, alcohol dependence, nicotine dependence or gambling disorder; eating disorders

; sleep disorders; disorders usually first diagnosed in infancy, childhood, or adolescence; restless leg syndrome; pain; osteoporosis and neurodegenerative disorders. Also disclosed is a method of treating a disease or condition in which orexin-1 (OX<sub>1</sub>) activity is implicated, said method comprising administering to a subject in need of such treatment  
5 a therapeutically effective amount of a compound of the invention as defined herein, or a pharmaceutically acceptable salt or solvate thereof, or a pharmaceutical composition as defined herein.

**[0018]** Examples of conditions in which orexin-1 (OX<sub>1</sub>) activity is implicated include behavioural arousal, eating disorders (e.g. binge eating, obesity), psychiatric conditions

## CLAIMS

1. A compound of Formula I



5 (I)

wherein:

$R_a$  is ethyl, propyl, isopropyl, cyclopropyl, n-butyl, isobutyl, sec-butyl, t-butyl, or cyclopropylmethyl, each of which is optionally substituted by one or more fluoro;

$R_b$  is selected from:

- 10 (i) hydrogen;  
 (ii) a (1-4C)alkyl which is optionally substituted by one or more fluoro;  
 (iii) a (3-6C)cycloalkyl which is optionally substituted by one or more fluoro; or  
 (iv) a (3-6C)cycloalkyl(1-2C)alkyl which is optionally substituted by one or more fluoro;

15 X is a group:



wherein

$X^0$  is selected from -O-, -N( $R^1$ )-, -N( $R^1$ )C(O)N( $R^1$ )- or -S-;

n is 0 or 1;

20  $R^1$  is selected from hydrogen or a (1-2C)alkyl group which is optionally substituted by one or more substituents selected from fluoro, hydroxyl,  $NR^{1a}R^{1b}$ , (1-2C)alkoxy or (1-2C)haloalkoxy;

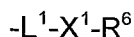
$R^{1a}$  and  $R^{1b}$  are each independently selected from hydrogen or (1-2C)alkyl or  $R^{1a}$

and  $R^{1b}$  are linked such that, together with the nitrogen atom to which they are

25 attached, they form a 4, 5 or 6 membered heterocyclic ring;

$R^{2b}$  and  $R^{3b}$  are hydrogen;

Ar is aryl or heteroaryl, each of which is optionally substituted with one or more substituents selected from the group consisting of halo, cyano, nitro or a group of the formula:



wherein

5  $L^1$  is absent or a linker group of the formula  $-[CR^7R^8]_r-$  in which  $r$  is an integer selected from 1, 2, 3 or 4, and  $R^7$  and  $R^8$  are each independently selected from hydrogen, halo, hydroxy or a (1-4C)alkyl, (3-6C)cycloalkyl, (3-6C)cycloalkyl(1-2C)alkyl group which is optionally substituted by one or more fluoro substituents; or  $R^7$  and  $R^8$  are optionally linked to such that, together with the carbon atom to which they are attached, they form a (3-6C)cycloalkyl ring which is optionally substituted by one or more fluoro substituents;

10  $X^1$  is absent or selected from  $-O-$ ,  $-C(O)-$ ,  $-C(O)O-$ ,  $-OC(O)-$ ,  $-N(R^9)-$ ,  $-N(R^9)-C(O)-$ ,  $-C(O)-N(R^9)-$ ,  $-N(R^9)-C(O)O-$ ,  $-OC(O)-N(R^9)-$ ,  $-N(R^9)C(O)N(R^{10})-$ ,  $-S-$ ,  $-SO-$ ,  $-SO_2-$ ,  $-S(O)_2N(R^9)-$ ,  $-N(R^9)SO_2-$  or  $-S(O)(=NR^{10})-$ , wherein  $R^9$  and  $R^{10}$  are selected from hydrogen, (1-4C)alkyl, (1-4C)fluoroalkyl or (3-6C)cycloalkyl; and

15  $R^6$  is hydrogen, (1-6C)alkyl, (2-6C)alkenyl, (2-6C)alkynyl, aryl, aryl(1-2C)alkyl, (3-6C)cycloalkyl, (3-6C)cycloalkyl(1-2C)alkyl, heterocyclyl, heterocyclyl-(1-2C)alkyl, heteroaryl, or heteroaryl-(1-2C)alkyl,

and wherein  $R^6$  is optionally further substituted by one or more substituent groups independently selected from oxo, halo, cyano, nitro, or a group of the formula:



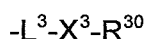
wherein

25  $L^2$  is absent or a linker group of the formula  $-[CR^{12}R^{13}]_s-$  in which  $s$  is an integer selected from 1, 2, 3 or 4, and  $R^{12}$  and  $R^{13}$  are each independently selected from hydrogen or a (1-4C)alkyl, (3-6C)cycloalkyl, (3-6C)cycloalkyl(1-2C)alkyl group which is optionally substituted by one or more fluoro substituents; or  $R^{12}$  and  $R^{13}$  are optionally linked to such that, together with the carbon atom to which they are attached, they form a (3-6C)cycloalkyl ring which is optionally substituted by one or more fluoro substituents;

30  $X^2$  is absent or selected from  $-O-$ ,  $-C(O)-$ ,  $-C(O)O-$ ,  $-OC(O)-$ ,  $-N(R^{14})-$ ,  $-N(R^{14})-C(O)-$ ,  $-C(O)-N(R^{14})-$ ,  $-N(R^{14})-C(O)O-$ ,  $-OC(O)-N(R^{14})-$ ,  $-N(R^{14})C(O)N(R^{15})-$ ,  $-S-$ ,  $-SO-$ ,  $-SO_2-$ ,  $-S(O)_2N(R^{14})-$ ,  $-N(R^{14})SO_2-$  or  $-S(O)(=NR^{14})-$ , wherein  $R^{14}$  and  $R^{15}$  are selected from hydrogen, (1-4C)alkyl, (1-4C)fluoroalkyl or (3-6C)cycloalkyl; and

$R^{11}$  is hydrogen or a (1-6C)alkyl (3-6C)cycloalkyl, (3-6C)cycloalkyl(1-2C)alkyl group which is optionally substituted by one or more fluoro substituents;

- Q is aryl or heteroaryl, each of which is optionally substituted with one or more  $R^z$  substituents, wherein  $R^z$  is selected from the group consisting of halo, cyano, nitro, or a group of the formula:



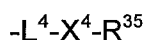
wherein

- $L^3$  is absent or a linker group of the formula  $-[CR^{31}R^{32}]_t-$  in which  $t$  is an integer selected from 1, 2, 3 or 4, and  $R^{31}$  and  $R^{32}$  are each independently selected from hydrogen or a (1-4C)alkyl, (3-6C)cycloalkyl, (3-6C)cycloalkyl(1-2C)alkyl group which is optionally substituted by one or more fluoro substituents; or  $R^{31}$  and  $R^{32}$  are optionally linked to such that, together with the carbon atom to which they are attached, they form a (3-6C)cycloalkyl ring which is optionally substituted by one or more fluoro substituents;

$X^3$  is absent, -O-, -C(O)-, -C(O)O-, -OC(O)-, -N( $R^{33}$ )-, -N( $R^{33}$ )-C(O)-, -C(O)-N( $R^{33}$ )-, -N( $R^{33}$ )-C(O)O-, -OC(O)-N( $R^{33}$ )-, -N( $R^{33}$ )C(O)N( $R^{34}$ )-, -S-, -SO-, -SO<sub>2</sub>-, -S(O)<sub>2</sub>N( $R^{33}$ )-, -N( $R^{33}$ )SO<sub>2</sub>- or -S(O)(=NR<sup>33</sup>)-, wherein  $R^{33}$  and  $R^{34}$  are selected from hydrogen, (1-4C)alkyl, (1-4C)fluoroalkyl or (3-6C)cycloalkyl; and

- $R^{30}$  is hydrogen, (1-6C)alkyl, (2-6C)alkenyl, (2-6C)alkynyl, aryl, aryl(1-2C)alkyl, (3-6C)cycloalkyl, (3-6C)cycloalkyl(1-2C)alkyl, heterocyclyl, heterocyclyl-(1-2C)alkyl, heteroaryl, or heteroaryl-(1-2C)alkyl,

- and wherein  $R^{30}$  is optionally further substituted by one or more substituent groups independently selected from oxo, halo, cyano, nitro, or a group of the formula:



wherein

- $L^4$  is absent or a linker group of the formula  $-[CR^{36}R^{37}]_u-$  in which  $u$  is an integer selected from 1, 2, 3 or 4, and  $R^{36}$  and  $R^{37}$  are each independently selected from hydrogen or a (1-4C)alkyl, (3-6C)cycloalkyl, (3-6C)cycloalkyl(1-2C)alkyl group which is optionally substituted by one or more fluoro substituents; or  $R^{36}$  and  $R^{37}$  are optionally linked to such that, together with the carbon atom to which they are attached, they form a (3-

6C)cycloalkyl ring which is optionally substituted by one or more fluoro substituents;

5  $X^4$  is absent or selected from -O-, -C(O)-, -C(O)O-, -OC(O)-, -N(R<sup>38</sup>)-, -N(R<sup>38</sup>)-C(O)-, -C(O)-N(R<sup>38</sup>)-, -N(R<sup>38</sup>)-C(O)O-, -OC(O)-N(R<sup>38</sup>)-, -N(R<sup>38</sup>)C(O)N(R<sup>39</sup>)-, -S-, -SO-, -SO<sub>2</sub>-, -S(O)<sub>2</sub>N(R<sup>38</sup>)-, -N(R<sup>38</sup>)SO<sub>2</sub>- or -S(O)(=NR<sup>38</sup>)-, wherein R<sup>38</sup> and R<sup>39</sup> are selected from hydrogen, (1-4C)alkyl, (1-4C)fluoroalkyl or (3-6C)cycloalkyl; and

10 R<sup>35</sup> is hydrogen or a (1-6C)alkyl, (3-6C)cycloalkyl, (3-6C)cycloalkyl(1-2C)alkyl group which is optionally substituted by one or more fluoro substituents;

or a pharmaceutically acceptable salt or solvate thereof, provided that the compound of Formula I is not one of the following compounds:

- N*<sup>2</sup>-(4-methoxy-benzoyl)-*N*<sup>1</sup>-[3-(4-methylbenzyl)-[1,2,4]thiadiazol-5-yl]-1,2-diamino butane;
- 15 *N*<sup>2</sup>-(4-methoxy-benzoyl)-*N*<sup>1</sup>-[3-(4-fluorobenzyl)-[1,2,4]thiadiazol-5-yl]-1,2-diamino butane;
- N*<sup>2</sup>-(4-methoxy-benzoyl)-*N*<sup>1</sup>-[3-(3-methoxybenzyl)-[1,2,4]thiadiazol-5-yl]-1,2-diamino butane;
- N*<sup>2</sup>-(4-methoxy-benzoyl)-*N*<sup>1</sup>-[3-(3-fluorobenzyl)-[1,2,4]thiadiazol-5-yl]-1,2-diamino butane;
- N*<sup>2</sup>-(4-methoxy-benzoyl)-*N*<sup>1</sup>-[3-(2-fluorobenzyl)-[1,2,4]thiadiazol-5-yl]-1,2-diamino butane;
- 20 *N*<sup>2</sup>-(4-methoxy-benzoyl)-*N*<sup>1</sup>-[3-(3-benzyl)-[1,2,4]thiadiazol-5-yl]-1,2-diamino butane;
- N*<sup>2</sup>-(4-methoxy-benzoyl)-*N*<sup>1</sup>-[3-(3-methylbenzyl)-[1,2,4]thiadiazol-5-yl]-1,2-diamino butane;
- N*<sup>2</sup>-(4-methoxy-benzoyl)-*N*<sup>1</sup>-[3-(2-methylbenzyl)-[1,2,4]thiadiazol-5-yl]-1,2-diamino butane;
- 25 *N*<sup>2</sup>-(4-methoxy-benzoyl)-*N*<sup>1</sup>-[3-(2-methoxybenzyl)-[1,2,4]thiadiazol-5-yl]-1,2-diamino butane;
- N*<sup>2</sup>-(4-methoxy-benzoyl)-*N*<sup>1</sup>-[3-(4-methoxybenzyl)-[1,2,4]thiadiazol-5-yl]-1,2-diamino butane;
- N*<sup>2</sup>-(4-methoxy-benzoyl)-*N*<sup>1</sup>-[3-(3-methyl-4-fluorobenzyl)-[1,2,4]thiadiazol-5-yl]-1,2-diamino butane;
- 30 *N*<sup>2</sup>-(4-methoxy-benzoyl)-*N*<sup>1</sup>-[3-(4-chlorobenzyl)-[1,2,4]thiadiazol-5-yl]-1,2-diamino butane;
- N*<sup>2</sup>-(4-methoxy-benzoyl)-*N*<sup>1</sup>-[3-(4-methylbenzyl)-[1,2,4]thiadiazol-5-yl]-1,2-diamino pentane;
- N*<sup>2</sup>-(4-methoxy-benzoyl)-*N*<sup>1</sup>-[3-(4-fluorobenzyl)-[1,2,4]thiadiazol-5-yl]-1,2-diamino pentane;
- 35 *N*<sup>2</sup>-(4-methoxy-benzoyl)-*N*<sup>1</sup>-[3-(3-methoxybenzyl)-[1,2,4]thiadiazol-5-yl]-1,2-diamino pentane;
- N*<sup>2</sup>-(4-methoxy-benzoyl)-*N*<sup>1</sup>-[3-(3-fluorobenzyl)-[1,2,4]thiadiazol-5-yl]-1,2-diamino pentane;

- $N^2$ -(4-methoxy-benzoyl)- $N^1$ -[3-(2-fluorobenzyl)-[1,2,4]thiadiazol-5-yl]-1,2-diamino pentane;
- $N^2$ -(4-methoxy-benzoyl)- $N^1$ -[3-(3-benzyl)-[1,2,4]thiadiazol-5-yl]-1,2-diamino pentane;
- $N^2$ -(4-methoxy-benzoyl)- $N^1$ -[3-(3-methylbenzyl)-[1,2,4]thiadiazol-5-yl]-1,2-diamino pentane;
- $N^2$ -(4-methoxy-benzoyl)- $N^1$ -[3-(2-methylbenzyl)-[1,2,4]thiadiazol-5-yl]-1,2-diamino pentane;
- $N^2$ -(4-methoxy-benzoyl)- $N^1$ -[3-(2-methoxybenzyl)-[1,2,4]thiadiazol-5-yl]-1,2-diamino pentane;
- $N^2$ -(4-methoxy-benzoyl)- $N^1$ -[3-(4-methoxybenzyl)-[1,2,4]thiadiazol-5-yl]-1,2-diamino pentane;
- $N^2$ -(4-methoxy-benzoyl)- $N^1$ -[3-(3-methyl-4-fluorobenzyl)-[1,2,4]thiadiazol-5-yl]-1,2-diamino pentane; or
- $N^2$ -(4-methoxy-benzoyl)- $N^1$ -[3-(4-chlorobenzyl)-[1,2,4]thiadiazol-5-yl]-1,2-diamino pentane.
2. A compound according to claim 1, wherein  $R_a$  is ethyl, cyclopropyl or isopropyl, each of which is optionally substituted by one or more fluoro.
3. A compound according to claim 1 or claim 2, wherein  $R_a$  is ethyl or cyclopropyl, each of which is optionally substituted by one or more fluoro.
4. A compound according to any one of the preceding claims, wherein  $R_a$  is ethyl optionally substituted by one or more fluoro.
5. A compound according to any one of the preceding claims, wherein  $R_a$  is ethyl.
6. A compound according to any one of the preceding claims, wherein  $R_b$  is selected from:
- (i) hydrogen;
  - (ii) a (1-4C)alkyl which is optionally substituted by one or more fluoro;
  - (iii) a (3-4C)cycloalkyl which is optionally substituted by one or more fluoro;
  - (iv) a (3-4C)cycloalkyl(1-2C)alkyl which is optionally substituted by one or more fluoro;

7. A compound according to any one of the preceding claims, wherein  $R_b$  is selected from:

- (i) hydrogen; or
- (ii) a (1-4C)alkyl which is optionally substituted by one or more fluoro.

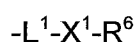
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8. A compound according to any one of the preceding claims, wherein  $R_b$  is hydrogen or methyl.

9. A compound according to any one of the preceding claims, wherein  $R_b$  is methyl.

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10. A compound according to any one of the preceding claims, wherein Ar is aryl or heteroaryl, each of which is optionally substituted with one or more substituents selected from the group consisting of halo, cyano, nitro or a group of the formula:



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wherein

$L^1$  is absent or a linker group of the formula  $-[CR^7R^8]_r-$  in which r is an integer selected from 1, 2 or 3, and  $R^7$  and  $R^8$  are each independently selected from hydrogen, halo, hydroxy or a (1-4C)alkyl, (3-4C)cycloalkyl, (3-4C)cycloalkyl(1-2C)alkyl group which is optionally substituted by one or more (e.g. one to five) fluoro substituents; or  $R^7$  and  $R^8$  are optionally linked to such that, together with the carbon atom to which they are attached, they form a (3-4C)cycloalkyl ring which is optionally substituted by one or more fluoro substituents;

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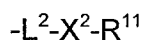
$X^1$  is absent or selected from  $-O-$ ,  $-C(O)-$ ,  $-N(R^9)-$ ,  $-N(R^9)-C(O)-$ ,  $-C(O)-N(R^9)-$ ,  $-N(R^9)C(O)N(R^{10})-$ ,  $-S-$ ,  $-SO-$ ,  $-SO_2-$ ,  $-S(O)_2N(R^9)-$ ,  $-N(R^9)SO_2-$  or  $-S(O)(=NR^{10})-$ , wherein  $R^9$  and  $R^{10}$  are selected from hydrogen, (1-4C)alkyl, (1-4C)fluoroalkyl or (3-4C)cycloalkyl; and

25

$R^6$  is hydrogen, (1-6C)alkyl, aryl, aryl(1-2C)alkyl, (3-6C)cycloalkyl, (3-6C)cycloalkyl(1-2C)alkyl, heterocyclyl, heterocyclyl-(1-2C)alkyl, heteroaryl, or heteroaryl-(1-2C)alkyl,

30

and wherein  $R^6$  is optionally further substituted by one or more substituent groups independently selected from oxo, halo, cyano, nitro, or a group of the formula:



5 wherein

$L^2$  is absent or a linker group of the formula  $-[CR^{12}R^{13}]_s-$  in which  $s$  is an integer selected from 1, 2 or 3, and  $R^{12}$  and  $R^{13}$  are each independently selected from hydrogen or a (1-4C)alkyl group which is optionally substituted by one or more (e.g. one to five) fluoro substituents; or  $R^{12}$  and  $R^{13}$  are optionally linked to such that, together with the carbon atom to which they are attached, they form a (3-6C)cycloalkyl ring which is optionally substituted by one or more (e.g. one to five) fluoro substituents;

$X^2$  is absent or selected from  $-O-$ ,  $-C(O)-$ ,  $-N(R^{14})-$ ,  $-N(R^{14})-C(O)-$ ,  $-C(O)-N(R^{14})-$ ,  $-N(R^{14})-C(O)O-$ ,  $-N(R^{14})C(O)N(R^{15})-$ ,  $-S-$ ,  $-SO-$ ,  $-SO_2-$ ,  $-S(O)_2N(R^{14})-$ ,  $-N(R^{14})SO_2-$  or  $-S(O)(=NR^{14})-$ , wherein  $R^{14}$  and  $R^{15}$  are selected from hydrogen, (1-4C)alkyl, (1-4C)fluoroalkyl or (3-6C)cycloalkyl; and

$R^{11}$  is hydrogen or a (1-6C)alkyl (3-6C)cycloalkyl, (3-6C)cycloalkyl(1-2C)alkyl group which is optionally substituted by one or more fluoro substituents.

11. A compound according to any one of the preceding claims, wherein Ar is aryl or heteroaryl, each of which is optionally substituted with one or more substituents selected from the group consisting of halo, cyano, nitro or a group of the formula:



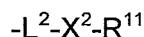
25 wherein

$L^1$  is absent or a linker group of the formula  $-[CR^7R^8]_r-$  in which  $r$  is an integer selected from 1 or 2, and  $R^7$  and  $R^8$  are each independently selected from hydrogen, halo, or a (1-2C)alkyl group which is optionally substituted by one or more fluoro substituents;

$X^1$  is absent or selected from  $-O-$ ,  $-N(R^9)-$ ,  $-S-$ ,  $-SO-$ , or  $-SO_2-$ , wherein  $R^9$  is selected from hydrogen or (1-2C)alkyl; and

$R^6$  is hydrogen, (1-4C)alkyl, phenyl, phenyl(1-2C)alkyl, (3-4C)cycloalkyl, (3-4C)cycloalkyl(1-2C)alkyl, 3-6-membered heterocyclyl, 3-6-membered heterocyclyl-(1-2C)alkyl, 5-6-membered heteroaryl, or 5-6-membered heteroaryl-(1-2C)alkyl,

- 5 and wherein  $R^6$  is optionally further substituted by one or more substituent groups independently selected from oxo, halo, cyano, nitro, or a group of the formula:



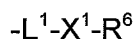
wherein

- 10  $L^2$  is absent or a linker group of the formula  $-[CR^{12}R^{13}]_s-$  in which  $s$  is an integer selected from 1 or 2, and  $R^{12}$  and  $R^{13}$  are each independently selected from hydrogen or a (1-2C)alkyl group

$X^2$  is absent or selected from -O-, -N( $R^{14}$ )-, -S-, -SO-, or -SO<sub>2</sub>-, wherein  $R^{14}$  is selected from hydrogen or (1-2C)alkyl; and

- 15  $R^{11}$  is hydrogen or a (1-4C)alkyl group which is optionally substituted by one or more fluoro substituents.

12. A compound according to any one of the preceding claims, wherein Ar is phenyl, naphthyl or a mono or bicyclic heteroaryl, each of which is optionally substituted with one or more substituents selected from the group consisting of halo, cyano, nitro or a group of the formula:



wherein

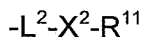
- 25  $L^1$  is absent or a linker group of the formula  $-[CR^7R^8]_r-$  in which  $r$  is an integer selected from 1 or 2, and  $R^7$  and  $R^8$  are each independently selected from hydrogen, halo, or a (1-2C)alkyl group which is optionally substituted by one or more fluoro substituents;

$X^1$  is absent or selected from -O-, -N( $R^9$ )-, -S-, -SO-, or -SO<sub>2</sub>-, wherein  $R^9$  is selected from hydrogen or (1-2C)alkyl; and

- 30  $R^6$  is hydrogen, (1-4C)alkyl, phenyl, phenyl(1-2C)alkyl, (3-4C)cycloalkyl, (3-4C)cycloalkyl(1-2C)alkyl, 3-6-membered heterocyclyl, 3-6-membered

heterocyclyl-(1-2C)alkyl, 5-6-membered heteroaryl, or 5-6-membered heteroaryl-(1-2C)alkyl,

and wherein  $R^6$  is optionally further substituted by one or more substituent groups independently selected from oxo, halo, cyano, nitro, or a group of the formula:



wherein

$L^2$  is absent or a linker group of the formula  $-[CR^{12}R^{13}]_s-$  in which  $s$  is an integer selected from 1 or 2, and  $R^{12}$  and  $R^{13}$  are each independently selected from hydrogen or a (1-2C)alkyl group

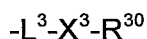
$X^2$  is absent or selected from -O-, -N( $R^{14}$ )-, -S-, -SO-, or -SO<sub>2</sub>-, wherein  $R^{14}$  is selected from hydrogen or (1-2C)alkyl; and

$R^{11}$  is hydrogen or a (1-4C)alkyl group which is optionally substituted by one or more fluoro substituents.

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13. A compound according to any one of the preceding claims, wherein Q is aryl or heteroaryl, each of which is optionally substituted with one or more  $R^z$  substituents, wherein  $R^z$  is selected from the group consisting of halo, cyano, nitro, or a group of the formula:

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wherein

$L^3$  is absent or a linker group of the formula  $-[CR^{31}R^{32}]_t-$  in which  $t$  is an integer selected from 1, 2 or 3, and  $R^{31}$  and  $R^{32}$  are each independently selected from hydrogen or a (1-4C)alkyl, (3-4C)cycloalkyl, (3-4C)cycloalkyl(1-2C)alkyl group which is optionally substituted by one or more (e.g. one to five) fluoro substituents; or  $R^{31}$  and  $R^{32}$  are optionally linked to such that, together with the carbon atom to which they are attached, they form a (3-4C)cycloalkyl ring which is optionally substituted by one or more fluoro substituents;

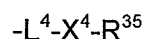
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$X^3$  is absent, or selected from -O-, -C(O)-, -N( $R^{33}$ )-, -N( $R^{33}$ )-C(O)-, -C(O)-N( $R^{33}$ )-, -N( $R^{33}$ )C(O)N( $R^{34}$ )-, -S-, -SO-, -SO<sub>2</sub>-, -S(O)<sub>2</sub>N( $R^{33}$ )-, -N( $R^{33}$ )SO<sub>2</sub>- or -S(O)(=N $R^{33}$ )-, wherein  $R^{33}$  and  $R^{34}$  are selected from hydrogen, (1-4C)alkyl, (1-4C)fluoroalkyl or (3-4C)cycloalkyl; and

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$R^{30}$  is hydrogen, (1-6C)alkyl, aryl, aryl(1-2C)alkyl, (3-6C)cycloalkyl, (3-6C)cycloalkyl(1-2C)alkyl, heterocyclyl, heterocyclyl-(1-2C)alkyl, heteroaryl, or heteroaryl-(1-2C)alkyl,

and wherein  $R^{30}$  is optionally further substituted by one or more substituent groups independently selected from oxo, halo, cyano, nitro, or a group of the formula:



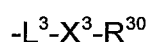
wherein

$L^4$  is absent or a linker group of the formula  $-[CR^{36}R^{37}]_u-$  in which  $u$  is an integer selected from 1, 2 or 3, and  $R^{36}$  and  $R^{37}$  are each independently selected from hydrogen or a (1-4C)alkyl group which is optionally substituted by one or more fluoro substituents; or  $R^{36}$  and  $R^{37}$  are optionally linked to such that, together with the carbon atom to which they are attached, they form a (3-4C)cycloalkyl ring which is optionally substituted by one or more fluoro substituents;

$X^4$  is absent or selected from  $-O-$ ,  $-C(O)-$ ,  $-N(R^{38})-$ ,  $-N(R^{38})-C(O)-$ ,  $-C(O)-N(R^{38})-$ ,  $-N(R^{38})C(O)N(R^{39})-$ ,  $-S-$ ,  $-SO-$ ,  $-SO_2-$ ,  $-S(O)_2N(R^{38})-$ ,  $-N(R^{38})SO_2-$  or  $-S(O)(=NR^{38})-$ , wherein  $R^{38}$  and  $R^{39}$  are selected from hydrogen, (1-4C)alkyl, (1-4C)fluoroalkyl or (3-6C)cycloalkyl; and

$R^{35}$  is hydrogen or a (1-6C)alkyl, (3-6C)cycloalkyl, (3-6C)cycloalkyl(1-2C)alkyl group which is optionally substituted by one or more fluoro substituents.

14. A compound according to any one of the preceding claims, wherein  $Q$  is aryl or heteroaryl, each of which is optionally substituted with one or more  $R^Z$  substituents, wherein  $R^Z$  is selected from the group consisting of halo, cyano, nitro, or a group of the formula:



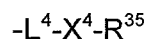
wherein

$L^3$  is absent or a linker group of the formula  $-[CR^{31}R^{32}]_t-$  in which  $t$  is an integer selected from 1 or 2, and  $R^{31}$  and  $R^{32}$  are each independently selected from hydrogen or a (1-4C)alkyl group;

$X^3$  is absent, or selected from  $-O-$ ,  $-N(R^{33})-$ ,  $-N(R^{33})-C(O)-$ ,  $-C(O)-N(R^{33})-$ ,  $-S-$ ,  $-SO-$ , or  $-SO_2-$ , wherein  $R^{33}$  is selected from hydrogen or (1-2C)alkyl; and

$R^{30}$  is hydrogen, (1-4C)alkyl, phenyl, phenyl(1-2C)alkyl, (3-4C)cycloalkyl, (3-4C)cycloalkyl(1-2C)alkyl, 3-6-membered heterocyclyl, 3-6-membered heterocyclyl-(1-2C)alkyl, 5-6-membered heteroaryl, or 5-6-membered heteroaryl-(1-2C)alkyl,

and wherein  $R^{30}$  is optionally further substituted by one or more substituent groups independently selected from oxo, halo, cyano, nitro, or a group of the formula:



wherein

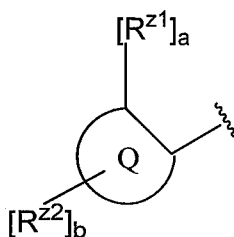
$L^4$  is absent or a linker group of the formula  $-[CR^{36}R^{37}]_u-$  in which  $u$  is an integer selected from 1 or 2, and  $R^{36}$  and  $R^{37}$  are each independently selected from hydrogen or a (1-2C)alkyl group;

$X^4$  is absent or selected from -O-, -N( $R^{38}$ )-, -S-, -SO-, or -SO<sub>2</sub>-, wherein  $R^{38}$  is selected from hydrogen or (1-2C)alkyl; and

$R^{35}$  is hydrogen or a (1-4C)alkyl group which is optionally substituted by one or more fluoro substituents.

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15. A compound according to any one of the preceding claims, wherein Q is a group having the following structure:

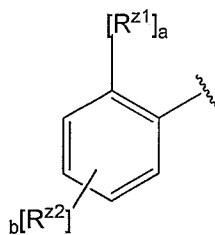


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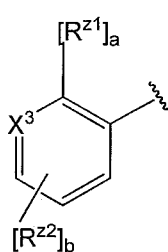
wherein ring Q is selected from phenyl, 5-6 membered monocyclic heteroaryl, or 9-10 membered bicyclic heteroaryl;  $a$  is an integer 0-1; and  $b$  is an integer 0-5; and  $R^{z1}$  and  $R^{z2}$  are substituent groups  $R^z$  on Q as defined in claim 13 or claim 14.

25

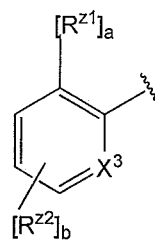
16. A compound according to claim 15, wherein ring Q is a group having any one of the following structures, W1-W7:



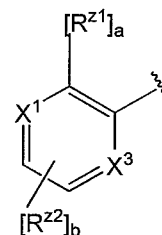
W1



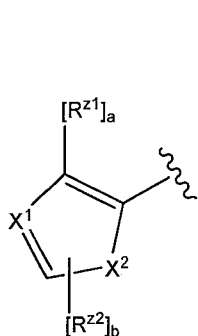
W2



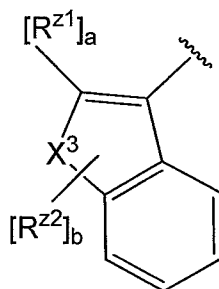
W3



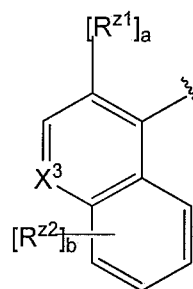
W4



W5



W6



W7

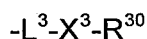
wherein  $X^1$ ,  $X^2$  and  $X^3$  are each a heteroatom selected from O, N or S;  $a$  is an integer 0-1; and  $b$  is an integer 0-5; and  $R^{Z1}$  and  $R^{Z2}$  are both substituent groups  $R^Z$  as defined in claim 13 or claim 14.

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17. A compound according to claim 15 or claim 16, wherein  $a$  is 1 and  $b$  is 0 or 1.

18. A compound according to any one of claims 15 to 17, wherein  $R^{Z1}$  is a substituent group of the formula:

15



wherein

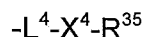
$L^3$  is absent;

$X^3$  is absent or selected from  $-O-$ ,  $-N(R^{33})-$ ,  $-S-$ ,  $-SO-$  or  $-SO_2-$ , wherein  $R^{33}$  is selected from hydrogen or (1-2C)alkyl; and

20

$R^{30}$  is hydrogen, (1-4C)alkyl, phenyl, (3-4C)cycloalkyl, (3-4C)cycloalkyl(1-2C)alkyl, 3-6-membered heterocyclyl, 3-6-membered heterocyclyl-(1-2C)alkyl, 5-6-membered heteroaryl, or 5-6-membered heteroaryl-(1-2C)alkyl,

and wherein  $R^{30}$  is optionally further substituted by one or more substituent groups independently selected from oxo, halo, cyano, nitro, or a group of the formula:



wherein

- 5  $L^4$  is absent or a linker group of the formula  $-[CR^{36}R^{37}]_u-$  in which  $u$  is an integer selected from 1, 2 or 3, and  $R^{36}$  and  $R^{37}$  are each independently selected from hydrogen or a (1-4C)alkyl group which is optionally substituted by one or more fluoro substituents; or  $R^{36}$  and  $R^{37}$  are optionally linked to such that, together with the carbon atom to which they are attached, they form a (3-4C)cycloalkyl
- 10 ring which is optionally substituted by one or more fluoro substituents;
- $X^4$  is absent or selected from  $-O-$ ,  $-C(O)-$ ,  $-N(R^{38})-$ ,  $-N(R^{38})-C(O)-$ ,  $-C(O)-N(R^{38})-$ ,  $-N(R^{38})C(O)N(R^{39})-$ ,  $-S-$ ,  $-SO-$ ,  $-SO_2-$ ,  $-S(O)_2N(R^{38})-$ ,  $-N(R^{38})SO_2-$  or  $-S(O)(=NR^{38})-$ , wherein  $R^{38}$  and  $R^{39}$  are selected from hydrogen, (1-4C)alkyl, (1-4C)fluoroalkyl or (3-6C)cycloalkyl; and
- 15  $R^{35}$  is hydrogen or a (1-6C)alkyl, (3-6C)cycloalkyl, (3-6C)cycloalkyl(1-2C)alkyl group which is optionally substituted by one or more fluoro substituents.

19. A compound according to any one of claims 15 to 18, wherein  $R^{21}$  is a substituent group of the formula:



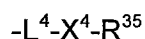
wherein

$L^3$  is absent;

$X^3$  is absent; and

$R^{30}$  is phenyl or a C- or N-linked 5-6 membered heteroaryl,

- 25 and wherein  $R^{30}$  is optionally further substituted by one or more substituent groups independently selected from halo, cyano or a group of the formula:



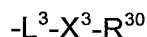
wherein

$L^4$  is absent;

- 30  $X^4$  is absent; and

$R^{35}$  is hydrogen or a (1-2C)alkyl group which is optionally substituted by one or more (e.g. one to five) fluoro substituents.

20. A compound according to any one of claims 15 to 19, wherein  $R^{22}$  is selected  
5 from the group consisting of halo, cyano, nitro, or a group of the formula:



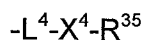
wherein

$L^3$  is absent;

10  $X^3$  is absent, or selected from -O-, -N( $R^{33}$ )-, -N( $R^{33}$ )-C(O)-, -C(O)-N( $R^{33}$ )-, -S-, -SO-, or -SO<sub>2</sub>-, wherein  $R^{33}$  is selected from hydrogen or (1-2C)alkyl; and

$R^{30}$  is hydrogen, (1-4C)alkyl, (3-4C)cycloalkyl, (3-4C)cycloalkyl(1-2C)alkyl, 3-6-membered heterocyclyl, 3-6-membered heterocyclyl-(1-2C)alkyl, 5-6-membered heteroaryl, or 5-6-membered heteroaryl-(1-2C)alkyl,

15 and wherein  $R^{30}$  is optionally further substituted by one or more substituent groups independently selected from oxo, halo, cyano, nitro, or a group of the formula:



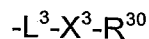
wherein

20  $L^4$  is absent or a linker group of the formula  $-[CR^{36}R^{37}]_u-$  in which u is an integer selected from 1, 2 or 3, and  $R^{36}$  and  $R^{37}$  are each independently selected from hydrogen or a (1-4C)alkyl group which is optionally substituted by one or more (e.g. one to five) fluoro substituents; or  $R^{36}$  and  $R^{37}$  are optionally linked to such that, together with the carbon atom to which they are attached, they form a (3-4C)cycloalkyl ring which is optionally substituted by one or more (e.g. one to five) fluoro substituents;

25  $X^4$  is absent or selected from -O-, -C(O)-, -N( $R^{38}$ )-, -N( $R^{38}$ )-C(O)-, -C(O)-N( $R^{38}$ )-, -N( $R^{38}$ )C(O)N( $R^{39}$ )-, -S-, -SO-, -SO<sub>2</sub>-, -S(O)<sub>2</sub>N( $R^{38}$ )-, -N( $R^{38}$ )SO<sub>2</sub>- or -S(O)(=N $R^{38}$ )-, wherein  $R^{38}$  and  $R^{39}$  are selected from hydrogen, (1-4C)alkyl, (1-4C)fluoroalkyl or (3-6C)cycloalkyl; and

30  $R^{35}$  is hydrogen or a (1-6C)alkyl, (3-6C)cycloalkyl, (3-6C)cycloalkyl(1-2C)alkyl group which is optionally substituted by one or more (e.g. one to five) fluoro substituents.

21. A compound according to any one of claims 15 to 20, wherein  $R^{22}$  is selected from the group consisting of halo, cyano, or a group of the formula:



wherein

5  $L^3$  is absent;

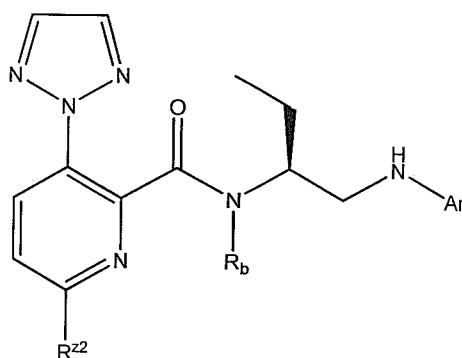
$X^3$  is absent, or selected from  $-O-$ ,  $-N(R^{33})-$ ,  $-N(R^{33})-C(O)-$ ,  $-C(O)-N(R^{33})-$ ,  $-S-$ ,  $-SO-$ , or  $-SO_2-$ , wherein  $R^{33}$  is selected from hydrogen or (1-2C)alkyl; and

$R^{30}$  is hydrogen or (1-4C)alkyl,

and wherein  $R^{30}$  is optionally further substituted by one or more fluoro atoms.

10

22. A compound according to claim 1, wherein said compound has the structural formula IA shown below



(IA)

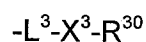
15 wherein

$R_b$  and Ar are each as defined in claim 1, and  $R^{22}$  is as defined in claim 20 or claim 21.

23. A compound according to claim 22, wherein

20  $R_b$  is (1-4C)alkyl optionally substituted by fluoro;

$R^{22}$  is selected from the group consisting of halo, cyano, nitro, or a group of the formula:



wherein

L<sup>3</sup> is absent;

X<sup>3</sup> is absent, or selected from -O-, -N(R<sup>33</sup>)-, -N(R<sup>33</sup>)-C(O)-, -C(O)-N(R<sup>33</sup>)-, -S-, -SO-, or -SO<sub>2</sub>-, wherein R<sup>33</sup> is selected from hydrogen or (1-2C)alkyl; and

R<sup>30</sup> is hydrogen or (1-4C)alkyl;

5 and wherein R<sup>30</sup> is optionally further substituted by one or more fluoro atoms;

Ar is as defined in any one of claims 1, 10 or 11.

24. A compound according to claim 22 or claim 23, wherein

R<sub>b</sub> is methyl optionally substituted by fluoro;

10 R<sup>22</sup> is selected from the group consisting of halo, methyl, methoxy, CF<sub>3</sub> or OCF<sub>3</sub>;

Ar is pyridyl, pyrimidinyl, pyrazinyl, which is optionally substituted by one or more substituent groups selected from halo, cyano, hydroxyl, mercapto, amino, carbamoyl, sulphamoyl, (1-2C)alkyl, (1-2C)haloalkyl, (1-2C)alkoxy, (1-2C)haloalkoxy, (1-2C)alkylamino, di-[(1-2C)alkyl]amino, (1-2C)alkylthio, (1-2C)alkylsulphinyl, (1-2C)alkylsulphonyl, (1-2C)alkoxycarbonyl, N-(1-2C)alkylcarbamoyl, N,N-di-[(1-2C)alkyl]carbamoyl, (2C)alkanoyl, (2C)alkanoyloxy, (2C)alkanoylamino, N-(1-2C)alkylsulphamoyl and N,N-di-[(1-2C)alkyl]sulphamoyl.

25. A compound which is selected from any one of the following:

- 20 (S)-N-(1-((5-chloropyridin-2-yl)amino)butan-2-yl)-N,5-dimethyl-2-(2H-1,2,3-triazol-2-yl)benzamide;  
 (S)-N-(1-((5-chloropyridin-2-yl)amino)butan-2-yl)-5-methyl-2-(2H-1,2,3-triazol-2-yl)benzamide;  
 (S)-N-(1-((5-chloropyridin-2-yl)amino)butan-2-yl)-N-methyl-[1,1'-biphenyl]-2-carboxamide;  
 25 (S)-N-(1-((5-chloropyridin-2-yl)amino)-3-methylbutan-2-yl)-[1,1'-biphenyl]-2-carboxamide;  
 (S)-N-(1-((5-chloropyridin-2-yl)amino)-4-methylpentan-2-yl)-[1,1'-biphenyl]-2-carboxamide;  
 (S)-N-(1-((5-chloropyridin-2-yl)amino)-3-methylbutan-2-yl)-2-methyl-4-phenylthiazole-5-carboxamide;  
 30 (S)-N-(1-((5-chloropyridin-2-yl)amino)-4-methylpentan-2-yl)-2-methyl-4-phenylthiazole-5-carboxamide;  
 (S)-N-(1-((5-chloropyridin-2-yl)amino)-4-methylpentan-2-yl)-N-methyl-[1,1'-biphenyl]-2-carboxamide;  
 (S)-N-(1-((5-chloropyridin-2-yl)amino)-4-methylpentan-2-yl)-N,2-dimethyl-4-phenylthiazole-5-carboxamide;  
 35 (S)-N-(1-((5-chloropyridin-2-yl)amino)-3-methylbutan-2-yl)-N-methyl-[1,1'-biphenyl]-2-carboxamide;  
 (S)-N-(1-((5-chloropyridin-2-yl)amino)-3-methylbutan-2-yl)-N,2-dimethyl-4-phenylthiazole-5-carboxamide;

- (S)-N-(1-((5-chloropyridin-2-yl)amino)-3,3-dimethylbutan-2-yl)-N-methyl-[1,1'-biphenyl]-2-carboxamide;
- (S)-N-(2-((5-chloropyridin-2-yl)amino)-1-cyclopropylethyl)-N-methyl-[1,1'-biphenyl]-2-carboxamide;
- 5 (S)-N-(1-((5-chloropyridin-2-yl)amino)propan-2-yl)-N-methyl-[1,1'-biphenyl]-2-carboxamide;
- (S)-N-(1-((5-chloropyridin-2-yl)amino)-3-methylbutan-2-yl)-N-cyclopropyl-[1,1'-biphenyl]-2-carboxamide;
- 10 (S)-5-chloro-N-(1-((5-chloropyridin-2-yl)amino)butan-2-yl)-N-methyl-2-(2H-1,2,3-triazol-2-yl)benzamide;
- (S)-N-(1-((5-chloropyridin-2-yl)amino)butan-2-yl)-N-methyl-2-(2H-1,2,3-triazol-2-yl)-5-(trifluoromethyl)benzamide;
- (S)-N-(1-((5-chloropyridin-2-yl)amino)butan-2-yl)-5-fluoro-N-methyl-2-(2H-1,2,3-triazol-2-yl)benzamide;
- 15 (S)-5-bromo-N-(1-((5-chloropyridin-2-yl)amino)butan-2-yl)-N-methyl-2-(2H-1,2,3-triazol-2-yl)benzamide;
- (S)-N-(1-((5-chloropyridin-2-yl)amino)butan-2-yl)-N-methyl-2-(2H-1,2,3-triazol-2-yl)-5-(trifluoromethoxy)benzamide;
- (S)-N-(1-((5-chloropyridin-2-yl)amino)butan-2-yl)-N,6-dimethyl-3-(2H-1,2,3-triazol-2-yl)picolinamide;
- 20 (S)-N-(1-((5-chloropyridin-2-yl)amino)butan-2-yl)-N,5-dimethyl-2-morpholinobenzamide;
- (S)-N-(1-((5-chloropyridin-2-yl)amino)butan-2-yl)-5-(dimethylamino)-N-methyl-2-(2H-1,2,3-triazol-2-yl)benzamide;
- (S)-N-(1-((5-chloropyridin-2-yl)amino)butan-2-yl)-N-methyl-2-(2H-1,2,3-triazol-2-yl)-5-(trifluoromethyl)nicotinamide;
- 25 (S)-5-chloro-N-(1-((5-chloropyridin-2-yl)amino)butan-2-yl)-2-(2H-1,2,3-triazol-2-yl)benzamide;
- (S)-N-(1-((5-chloropyridin-2-yl)amino)-3-methylbutan-2-yl)-N,2-dimethyl-5-phenylthiazole-4-carboxamide;
- 30 (S)-N-(1-((5-chloropyridin-2-yl)amino)-3-methylbutan-2-yl)-N-methyl-2-phenyl-1H-indole-3-carboxamide;
- (S)-N-(1-((5-chloropyridin-2-yl)amino)-3-methylbutan-2-yl)-N-methyl-2-(2H-1,2,3-triazol-2-yl)benzamide;
- (S)-N-(1-((4-fluorobenzyl)oxy)-3-methylbutan-2-yl)-N-methyl-[1,1'-biphenyl]-2-carboxamide;
- 35 (S)-N-(1-((4,6-dimethylpyrimidin-2-yl)oxy)-3-methylbutan-2-yl)-N-methyl-[1,1'-biphenyl]-2-carboxamide;
- (S)-N-methyl-N-(3-methyl-1-(quinazolin-2-yloxy)butan-2-yl)-[1,1'-biphenyl]-2-carboxamide;
- 40 (S)-N-methyl-N-(3-methyl-1-((4-phenylpyrimidin-2-yl)oxy)butan-2-yl)-[1,1'-biphenyl]-2-carboxamide;
- (S)-N-methyl-N-(3-methyl-1-((1-methyl-1H-benzo[d]imidazol-2-yl)oxy)butan-2-yl)-[1,1'-biphenyl]-2-carboxamide;
- (S)-N-(1-((5-chloropyridin-2-yl)oxy)-3-methylbutan-2-yl)-N-methyl-[1,1'-biphenyl]-2-carboxamide;
- 45 (S)-N-methyl-N-(3-methyl-1-((4-phenylpyrimidin-2-yl)amino)butan-2-yl)-[1,1'-biphenyl]-2-carboxamide;
- (S)-N-methyl-N-(3-methyl-1-(quinazolin-2-ylamino)butan-2-yl)-[1,1'-biphenyl]-2-carboxamide;
- 50 (S)-N-(1-((4,6-dimethylpyrimidin-2-yl)amino)-3-methylbutan-2-yl)-N-methyl-[1,1'-biphenyl]-2-carboxamide;
- (S)-N-methyl-N-(3-methyl-1-((1-methyl-1H-benzo[d]imidazol-2-yl)amino)butan-2-yl)-[1,1'-biphenyl]-2-carboxamide;
- (S)-5-chloro-N-methyl-2-(2H-1,2,3-triazol-2-yl)-N-(1-((5-(trifluoromethyl)pyrimidin-2-yl)amino)butan-2-yl)benzamide;
- 55

- (S)-5-chloro-*N*-methyl-2-(2*H*-1,2,3-triazol-2-yl)-*N*-(1-((5-(trifluoromethyl)pyrazin-2-yl)amino)butan-2-yl)benzamide;  
 (S)-5-chloro-*N*-methyl-2-(2*H*-1,2,3-triazol-2-yl)-*N*-(1-((6-(trifluoromethyl)pyridazin-3-yl)amino)butan-2-yl)benzamide;  
 5 (S)-5-chloro-*N*-methyl-2-(2*H*-1,2,3-triazol-2-yl)-*N*-(1-((5-(trifluoromethyl)pyridin-2-yl)amino)butan-2-yl)benzamide;  
 (S)-*N*-(1-(benzo[d]oxazol-2-ylamino)butan-2-yl)-5-chloro-*N*-methyl-2-(2*H*-1,2,3-triazol-2-yl)benzamide;  
 10 (S)-*N*-(1-(benzo[d]thiazol-2-ylamino)butan-2-yl)-5-chloro-*N*-methyl-2-(2*H*-1,2,3-triazol-2-yl)benzamide;  
 (S)-5-chloro-*N*-(1-((5-chloro-3-nitropyridin-2-yl)amino)butan-2-yl)-*N*-methyl-2-(2*H*-1,2,3-triazol-2-yl)benzamide;  
 (S)-*N*,6-dimethyl-3-(2*H*-1,2,3-triazol-2-yl)-*N*-(1-((5-(trifluoromethyl)pyrimidin-2-yl)amino)butan-2-yl)picolinamide;  
 15 (S)-*N*,6-dimethyl-3-(2*H*-1,2,3-triazol-2-yl)-*N*-(1-((5-(trifluoromethyl)pyrazin-2-yl)amino)butan-2-yl)picolinamide;  
 (S)-*N*,6-dimethyl-3-(2*H*-1,2,3-triazol-2-yl)-*N*-(1-((5-(trifluoromethyl)pyridin-2-yl)amino)butan-2-yl)picolinamide;  
 20 (S)-*N*-(1-((5-chloropyridin-2-yl)amino)-3-methylbutan-2-yl)-*N*,5-dimethyl-2-(2*H*-1,2,3-triazol-2-yl)benzamide;  
 (S)-*N*-(1-((5-chloropyridin-2-yl)amino)-3-methylbutan-2-yl)-*N*,1-dimethyl-1*H*-indole-3-carboxamide;  
 (S)-*N*-(1-((5-chloropyridin-2-yl)amino)-3-methylbutan-2-yl)-*N*,2-dimethylquinoline-4-carboxamide;  
 25 (S)-*N*-(1-((5-chloropyridin-2-yl)amino)-3-methylbutan-2-yl)-*N*-methyl-2-(trifluoromethoxy)benzamide;  
 (S)-5-chloro-*N*-methyl-*N*-(1-((6-methylpyridin-2-yl)amino)butan-2-yl)-2-(2*H*-1,2,3-triazol-2-yl)benzamide;  
 (S)-5-chloro-*N*-methyl-2-(2*H*-1,2,3-triazol-2-yl)-*N*-(1-((6-(trifluoromethyl)pyridin-3-yl)amino)butan-2-yl)benzamide;  
 30 (S)-*N*,6-dimethyl-3-(2*H*-1,2,3-triazol-2-yl)-*N*-(1-((6-(trifluoromethyl)pyridin-3-yl)amino)butan-2-yl)picolinamide;  
 (S)-*N*-(1-(4-fluorobenzamido)-3-methylbutan-2-yl)-*N*-methyl-[1,1'-biphenyl]-2-carboxamide;  
 35 (S)-*N*-(1-((4-fluorobenzyl)amino)-3-methylbutan-2-yl)-*N*-methyl-[1,1'-biphenyl]-2-carboxamide;  
 (S)-*N*-methyl-*N*-(3-methyl-1-(3-phenylureido)butan-2-yl)-[1,1'-biphenyl]-2-carboxamide;  
 (S)-*N*-(1-((4-chlorophenyl)amino)-3-methylbutan-2-yl)-*N*-methyl-[1,1'-biphenyl]-2-carboxamide;  
 40 (S)-*N*-(1-((3-amino-5-chloropyridin-2-yl)amino)butan-2-yl)-5-chloro-*N*-methyl-2-(2*H*-1,2,3-triazol-2-yl)benzamide;  
 (S)-*N*,6-dimethyl-*N*-(1-(quinazolin-2-ylamino)butan-2-yl)-3-(2*H*-1,2,3-triazol-2-yl)picolinamide;  
 45 (S)-*N*-(1-(benzo[d]oxazol-2-ylamino)butan-2-yl)-*N*,6-dimethyl-3-(2*H*-1,2,3-triazol-2-yl)picolinamide;  
 (S)-*N*-(1-(benzo[d]thiazol-2-ylamino)butan-2-yl)-*N*,6-dimethyl-3-(2*H*-1,2,3-triazol-2-yl)picolinamide;  
 (S)-*N*-(1-((5-chlorobenzo[d]oxazol-2-yl)amino)butan-2-yl)-*N*,6-dimethyl-3-(2*H*-1,2,3-triazol-2-yl)picolinamide;  
 50 (S)-*N*,6-dimethyl-*N*-(1-(quinoxalin-2-ylamino)butan-2-yl)-3-(2*H*-1,2,3-triazol-2-yl)picolinamide;  
 (S)-*N*,6-dimethyl-*N*-(3-methyl-1-((5-(trifluoromethyl)pyrimidin-2-yl)amino)butan-2-yl)-3-(2*H*-1,2,3-triazol-2-yl)picolinamide;  
 55 (S)-*N*,6-dimethyl-*N*-(3-methyl-1-((5-(trifluoromethyl)pyrazin-2-yl)amino)butan-2-yl)-3-(2*H*-1,2,3-triazol-2-yl)picolinamide;

- (S)-N,6-dimethyl-N-(3-methyl-1-(quinazolin-2-ylamino)butan-2-yl)-3-(2H-1,2,3-triazol-2-yl)picolinamide;
- (S)-N,6-dimethyl-N-(3-methyl-1-((5-(trifluoromethyl)pyridin-2-yl)amino)butan-2-yl)-3-(2H-1,2,3-triazol-2-yl)picolinamide;
- 5 (S)-N-ethyl-6-methyl-3-(2H-1,2,3-triazol-2-yl)-N-(1-((5-(trifluoromethyl)pyrazin-2-yl)amino)butan-2-yl)picolinamide;
- (S)-N-ethyl-6-methyl-3-(2H-1,2,3-triazol-2-yl)-N-(1-((5-(trifluoromethyl)pyridin-2-yl)amino)butan-2-yl)picolinamide;
- 10 (S)-N-ethyl-6-methyl-N-(1-(quinazolin-2-ylamino)butan-2-yl)-3-(2H-1,2,3-triazol-2-yl)picolinamide;
- (S)-N-ethyl-6-methyl-3-(2H-1,2,3-triazol-2-yl)-N-(1-((5-(trifluoromethyl)pyrimidin-2-yl)amino)butan-2-yl)picolinamide;
- (S)-N-(1-cyclopropyl-2-((5-(trifluoromethyl)pyrimidin-2-yl)amino)ethyl)-N,6-dimethyl-3-(2H-1,2,3-triazol-2-yl)picolinamide;
- 15 (S)-N,6-dimethyl-N-(1-(quinolin-2-ylamino)butan-2-yl)-3-(2H-1,2,3-triazol-2-yl)picolinamide;
- (S)-N-(1-((1,5-naphthyridin-2-yl)amino)butan-2-yl)-N,6-dimethyl-3-(2H-1,2,3-triazol-2-yl)picolinamide;
- (S)-5-chloro-N-methyl-N-(1-(quinolin-2-ylamino)butan-2-yl)-2-(2H-1,2,3-triazol-2-yl)benzamide;
- 20 (S)-N,3-dimethyl-N-(1-((5-(trifluoromethyl)pyrimidin-2-yl)amino)butan-2-yl)isoquinoline-1-carboxamide;
- (S)-N-methyl-N-(1-((5-(trifluoromethyl)pyrimidin-2-yl)amino)butan-2-yl)quinoline-8-carboxamide;
- 25 (S)-6-chloro-N-methyl-N-(1-((5-(trifluoromethyl)pyrimidin-2-yl)amino)butan-2-yl)quinoline-8-carboxamide;
- (S)-3-(dimethylamino)-N-methyl-N-(1-((5-(trifluoromethyl)pyrimidin-2-yl)amino)butan-2-yl)isoquinoline-1-carboxamide;
- (S)-N,6-dimethyl-N-(1-(methyl(5-(trifluoromethyl)pyrimidin-2-yl)amino)butan-2-yl)-3-(2H-1,2,3-triazol-2-yl)picolinamide;
- 30 (S)-N-(1-((2-methoxyethyl)(5-(trifluoromethyl)pyrimidin-2-yl)amino)butan-2-yl)-N,6-dimethyl-3-(2H-1,2,3-triazol-2-yl)picolinamide;
- (S)-N,6-dimethyl-3-(pyrimidin-2-yl)-N-(1-((5-(trifluoromethyl)pyrimidin-2-yl)amino)butan-2-yl)picolinamide formic acid salt;
- 35 (S)-N-methyl-N-(1-((5-(trifluoromethyl)pyrimidin-2-yl)amino)butan-2-yl)isoquinoline-1-carboxamide;
- (S)-N-(1-((5-chloropyridin-2-yl)amino)butan-2-yl)-N,4,5-trimethyl-2-(2H-1,2,3-triazol-2-yl)benzamide;
- (S)-N-(1-((5-chloropyridin-2-yl)amino)butan-2-yl)-5-methoxy-N,4-dimethyl-2-(2H-1,2,3-triazol-2-yl)benzamide;
- 40 (S)-N,6-dimethyl-3-(2H-1,2,3-triazol-2-yl)-N-(4,4,4-trifluoro-1-((5-(trifluoromethyl)pyrimidin-2-yl)amino)butan-2-yl)picolinamide;
- (S)-N,6-dimethyl-3-(1H-1,2,4-triazol-1-yl)-N-(1-((5-(trifluoromethyl)pyrimidin-2-yl)amino)butan-2-yl)picolinamide formic acid salt;
- 45 (S)-N,6-dimethyl-3-(1H-pyrazol-1-yl)-N-(1-((5-(trifluoromethyl)pyrimidin-2-yl)amino)butan-2-yl)picolinamide formic acid salt;
- (S)-2-fluoro-N-methyl-6-(2H-1,2,3-triazol-2-yl)-N-(1-((5-(trifluoromethyl)pyrimidin-2-yl)amino)butan-2-yl)benzamide;
- (S)-6-methoxy-N-methyl-3-(2H-1,2,3-triazol-2-yl)-N-(1-((5-(trifluoromethyl)pyrimidin-2-yl)amino)butan-2-yl)picolinamide; or a pharmaceutically acceptable salt or solvate thereof.
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26. A pharmaceutical composition comprising a compound according to any one of claims 1 to 25, or a pharmaceutically acceptable salt or solvate thereof, and one or more pharmaceutically acceptable excipients.
- 5 27. A compound according to any one of claims 1 to 25, or a pharmaceutically acceptable salt or solvate thereof, or a pharmaceutical composition according to claim 26, for use in therapy.
- 10 28. A compound according to any one of claims 1 to 25, for use in the treatment of schizophrenia and other psychotic disorders; dementia and other cognitive disorders; anxiety disorders; mood disorders; addiction including substance dependence, alcohol dependence, nicotine dependence or gambling disorder; eating disorders; sleep disorders; disorders usually first diagnosed in infancy, childhood, or adolescence; restless leg syndrome; pain; osteoporosis and neurodegenerative disorders.
- 15 29. Use of a compound according to any one of claims 1 to 25, or a pharmaceutically acceptable salt or solvate thereof in the manufacture of a medicament for treating a disease or condition selected from schizophrenia and other psychotic disorders; dementia and other cognitive disorders; anxiety disorders; mood disorders; addiction
- 20 including substance dependence, alcohol dependence, nicotine dependence or gambling disorder; eating disorders; sleep disorders; disorders usually first diagnosed in infancy, childhood, or adolescence; restless leg syndrome; pain; osteoporosis and neurodegenerative disorders.