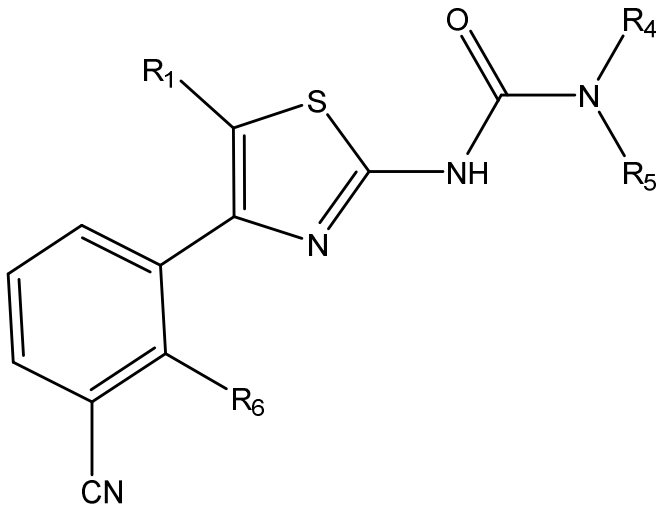
CLAIMS

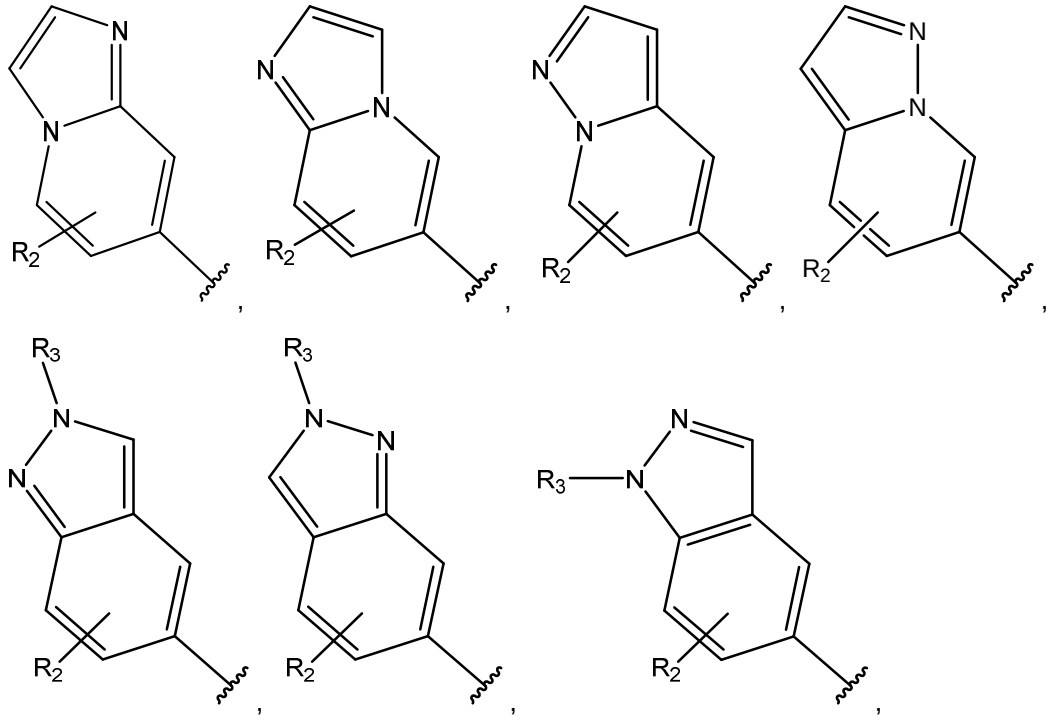
1. A compound, or pharmaceutically acceptable salt thereof, having the structural formula I shown below:

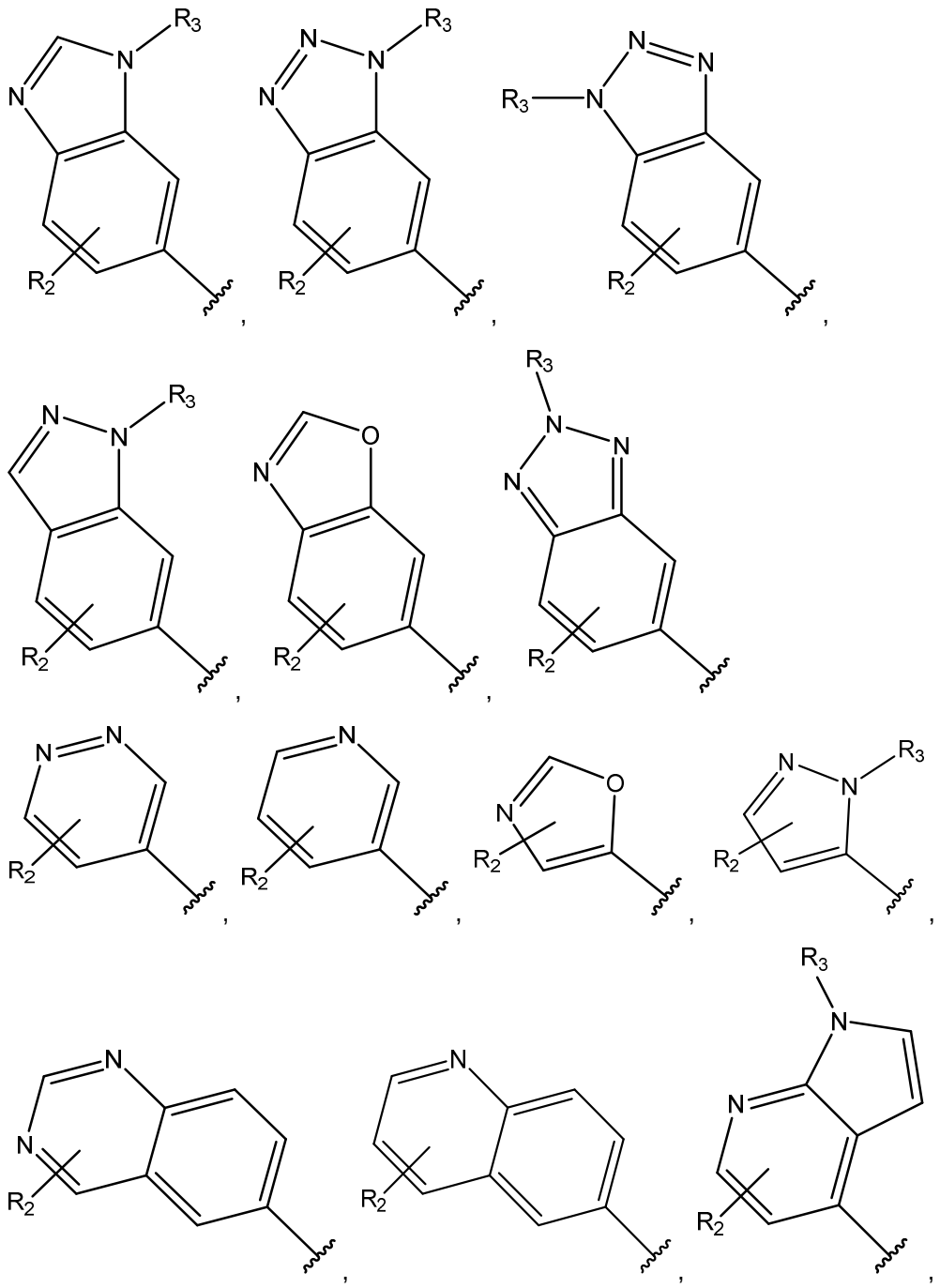


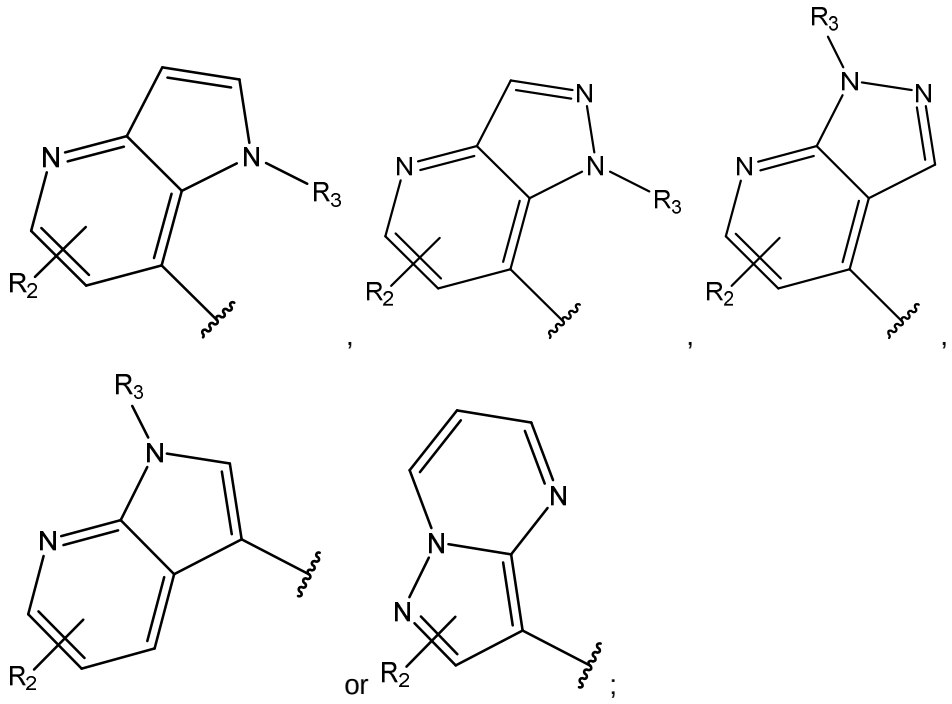
I

wherein:

R_1 is selected from:







wherein:

any available C atoms in R_1 are optionally substituted by one or more R_2 substituent groups, and

any available N atoms in R_1 are optionally in the form of a N-oxide or substituted by an R_3 group;

wherein

each R_2 is independently selected from (1-6C)alkyl, (3-6C)cycloalkyl, (3-6C)cycloalkyl(1-2C)alkyl, aryl, aryl(1-2C)alkyl, heterocyclyl, heterocyclyl(1-2C)alkyl, heteroaryl (e.g. a 5-membered heteroaryl), heteroaryl(1-2C)alkyl, halo, (1-3C)haloalkyl, (1-3C)haloalkoxy, (1-3C)hydroxyalkyl, cyano, $-(CR_{1C}R_{1D})_{q1}-OR_{1A}$, $-(CR_{1C}R_{1D})_{q1}-C(O)R_{1A}$, $-(CR_{1C}R_{1D})_{q1}-C(O)OR_{1A}$, $-(CR_{1C}R_{1D})_{q1}-OC(O)R_{1A}$, $-(CR_{1C}R_{1D})_{q1}-C(O)N(R_{1B})R_{1A}$, $-(CR_{1C}R_{1D})_{q1}-N(R_{1B})C(O)R_{1A}$, $-(CR_{1C}R_{1D})_{q1}-S(O)_pR_{1A}$ (where p is 0, 1 or 2), $-(CR_{1C}R_{1D})_{q1}-SO_2N(R_{1B})R_{1A}$, or $-(CR_{1C}R_{1D})_{q1}-N(R_{1B})SO_2R_{1A}$,

wherein q1 is 0, 1, or 2; and

wherein R_{1A} and R_{1B} are each independently selected from hydrogen, (1-2C)alkyl, (3-4C)cycloalkyl or (3-4C)cycloalkyl(1-2C)alkyl;

wherein R_{1C} and R_{1D} are each independently selected from hydrogen or (1-2C)alkyl; and

R_3 is selected from hydrogen, (1-3C)alkyl, (3-6C)cycloalkyl, (3-6C)cycloalkyl(1-2C)alkyl, aryl, aryl(1-2C)alkyl, a C-linked heterocyclyl, heterocyclyl(1-2C)alkyl,

heteroaryl, heteroaryl(1-2C)alkyl, (1-3C)haloalkyl, (1-3C)haloalkoxy, (1-3C)hydroxyalkyl, -$(CR_{3C}R_{3D})_{1-2}$-OR_{3A}, -$(CR_{3C}R_{3D})_{q3}$-$C(O)R_{3A}$, -$(CR_{3C}R_{3D})_{q3}$-$C(O)OR_{3A}$, -$(CR_{3C}R_{3D})_{1-2}$-$OC(O)R_{3A}$, -$(CR_{3C}R_{3D})_{q3}$-$C(O)N(R_{3B})R_{q3}$, -$(CR_{1C}R_{1D})_{1-2}$-$N(R_{3B})C(O)R_{3A}$, -$(CR_{3C}R_{3D})$-$S(O)_{p3}R_{3A}$ (where p3 is 0, 1 or 2), -$(CR_{3C}R_{3D})_{1-2}$-$SO_2N(R_{3B})R_{3A}$, or -$(CR_{3C}R_{3D})_{1-2}$-$N(R_{3B})SO_2R_{3A}$;

wherein R_{3A} and R_{3B} are each independently selected from hydrogen, (1-2C)alkyl, (3-4C)cycloalkyl or (3-4C)cycloalkyl(1-2C)alkyl;

wherein R_{3C} and R_{3D} are each independently selected from hydrogen or (1-2C)alkyl; and

wherein q3 is 0, 1, or 2; and

R_4 and R_5 are linked such that, together with the nitrogen atom to which they are attached, they form a heterocyclic ring which is optionally substituted on any available carbon atom by one or more R_{10C} substituent groups,

wherein R_{10C} is selected from oxo, thioxo, halo, or cyano substituents, or a group of the formula:

$$–[CR_{7a}R_{7b}]_n–L–Z$$

wherein

n is an integer from 0 to 6;

R_{7a} and R_{7b} are each independently selected from hydrogen, fluoro or (1-2C)alkyl;

L is absent or selected from -O-, -S-, -SO-, -SO_2-, -$N(R_a)$-, -C(O)-, -C(O)O-, -OC(O)-, -$C(O)N(R_a)$-, -$N(R_a)C(O)$-, -$N(R_a)C(O)N(R_b)$-, -$C(S)N(R_a)$-, -$N(R_a)C(S)$-, -$N(R_a)C(S)N(R_b)$-, -$S(O)_2N(R_a)$-, or -$N(R_a)SO_2$-, wherein R_a and R_b are each independently selected from hydrogen or (1-2C)alkyl; and

Z is selected from hydrogen, (1-6C)alkyl, (3-6C)cycloalkyl, (3-6C)cycloalkyl(1-2C)alkyl, aryl, aryl(1-2C)alkyl, heterocyclyl, heterocyclyl(1-2C)alkyl, heteroaryl or heteroaryl(1-2C)alkyl; and wherein Z is optionally substituted by one or more substituents selected from (1-6C)alkyl, halo, (1-6C)haloalkyl, (1-6C)haloalkoxy, cyano, nitro, -NR_cR_d, -OR_c, -$C(O)R_c$, -$C(O)OR_c$, -$OC(O)R_c$, -$C(O)N(R_c)R_d$, -$N(R_c)C(O)R_d$, -$S(O)_yR_c$ (where y is 0, 1 or 2), -$SO_2N(R_c)R_d$, -$N(R_c)SO_2R_d$, -$(CH_2)_zNR_cR_d$ (where z is 1, 2 or 3) or oxo,

wherein any alkyl moiety in a substituent group on Z is optionally further substituted by cyano, halo, hydroxy, amino, oxo, (1-2C)alkyl or (1-2C)alkoxy and R_c and R_d are each independently selected from hydrogen, (1-6C)alkyl, (1-6C)haloalkyl or (3-6C)cycloalkyl;

and wherein any available N atoms in the ring formed by R_4 and R_5 are optionally in the form of a N-oxide or are optionally substituted by one or more R_{10N},

wherein R_{10N} is -$S(O)_2NH_2$ or selected from:

(i) $-Z_1$;

(ii) $-L_{1a}-Z_1$; or

(iii) $-[CR_{8a}R_{8b}]_{1-6}-L_{1b}-Z_1$;

wherein

R_{8a} and R_{8b} are each independently selected from hydrogen, fluoro or (1-2C)alkyl;

L_{1a} is selected from -C(O)-, $-S(O)_2-$, -C(O)O-, $-C(O)N(R_{a1})-$, $-S(O)_2N(R_{a1})-$ or $-N(R_{a1})-$, wherein R_{a1} is selected from hydrogen or (1-2C)alkyl;

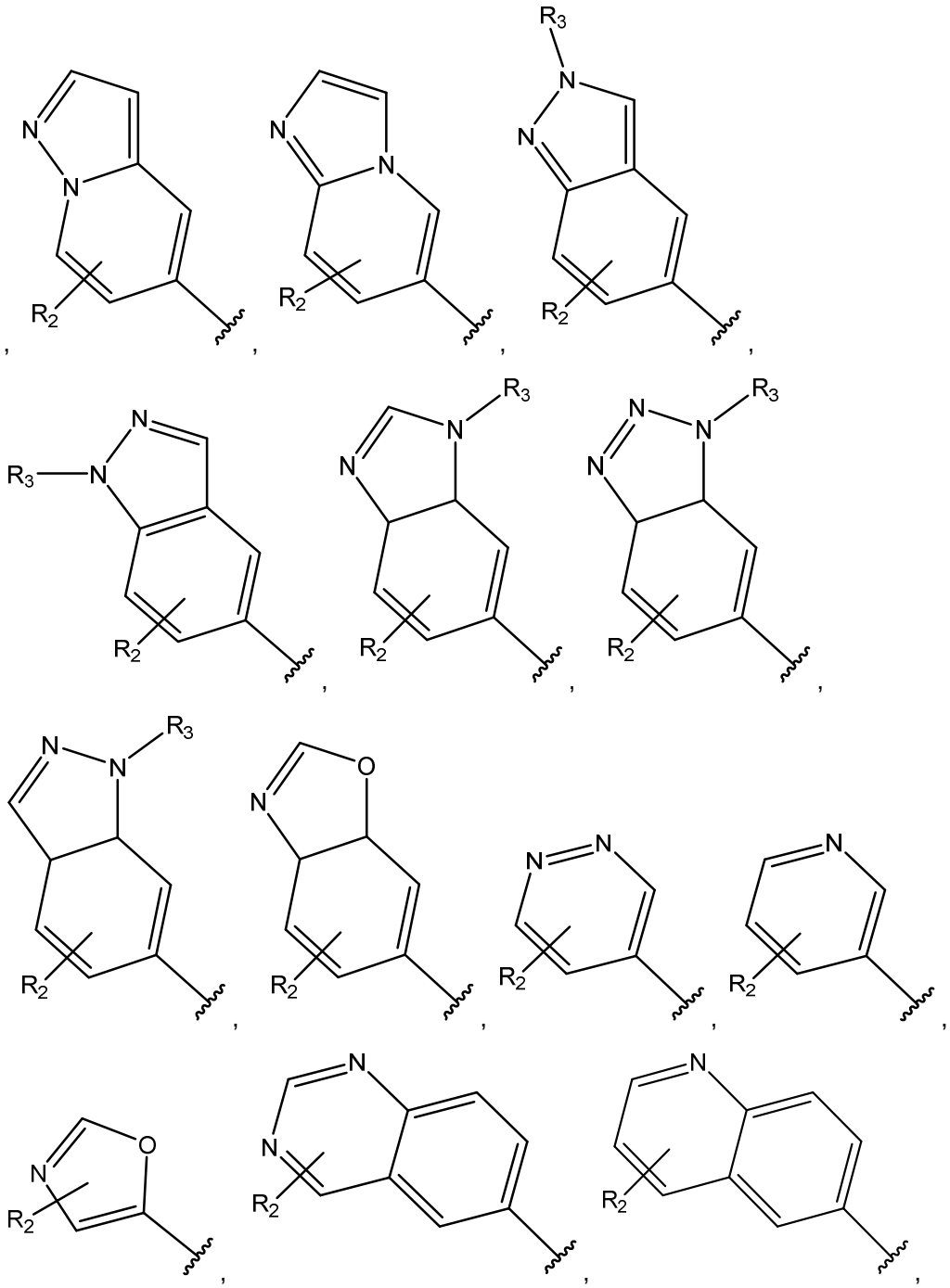
L_{1b} is absent or selected from -O-, -S-, -SO-, $-SO_{2-}$, $-N(R_{a2})-$, -C(O)-, -C(O)O-, -OC(O)-, $-C(O)N(R_{a2})-$, $-N(R_{a2})C(O)-$, $-N(R_{a2})C(O)N(R_{b2})-$, $-C(S)N(R_{a2})-$, $-N(R_{a2})C(S)-$, $-N(R_{a2})C(S)N(R_{b2})-$, $-S(O)_2N(R_{a2})-$, or $-N(R_{a2})SO_2$, wherein R_{a2} and R_{b2} are each independently selected from hydrogen or (1-2C)alkyl; and

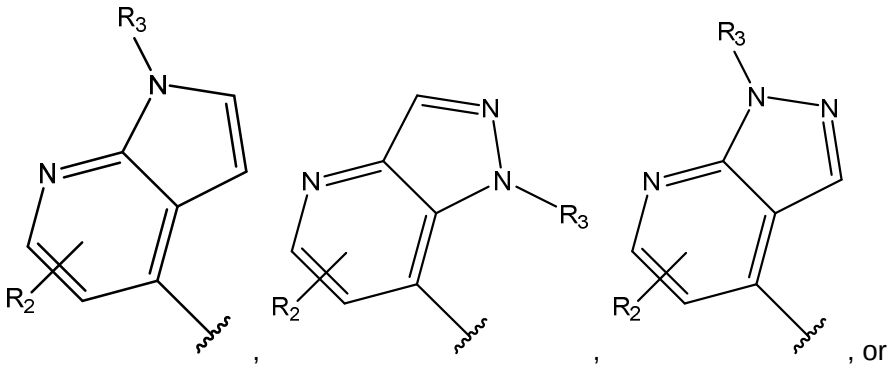
Z_1 is selected from (1-6C)alkyl, (3-6C)cycloalkyl, aryl, heterocyclyl, heteroaryl, (3-6C)cycloalkyl(1-2C)alkyl, aryl(1-2C)alkyl, heterocyclyl(1-2C)alkyl or heteroaryl(1-2C)alkyl, with the proviso that when Z_1 is a heterocyclyl group directly linked to a N atom it is a carbon-linked heterocyclyl; and wherein Z_1 is optionally substituted by one or more substituents selected from (1-6C)alkyl, halo, (1-6C)haloalkoxy, cyano, nitro, $-NR_eR_f$, $-OR_e$, $-C(O)R_e$, $-C(O)OR_e$, $-OC(O)R_e$, $-C(O)N(R_e)R_f$, $-N(R_e)C(O)R_f$, $-S(O)_yR_e$ (where y is 0, 1 or 2), $-SO_2N(R_e)R_f$, $-N(R_e)SO_2R_f$, $-(CH_2)_zNR_eR_f$ (where z is 1, 2 or 3) or oxo, and wherein R_e and R_f are each independently selected from hydrogen, (1-6C)alkyl, (1-6C)haloalkyl or (3-6C)cycloalkyl;

and wherein any S atoms present in the heterocyclic ring may optionally be present as S(=O), $S(=O)_2$ or $S(=O)(=NR_e)$ wherein R_e is selected from hydrogen, (1-3C)alkyl or (2-3C)alkanoyl; and

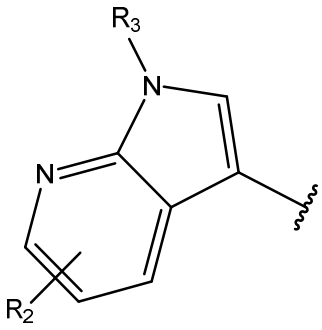
R_6 is selected from hydrogen, halo, methyl, methoxy and trifluoromethyl.

2. A compound according to claim 1, or a pharmaceutically acceptable salt thereof, wherein R_1 is selected from:





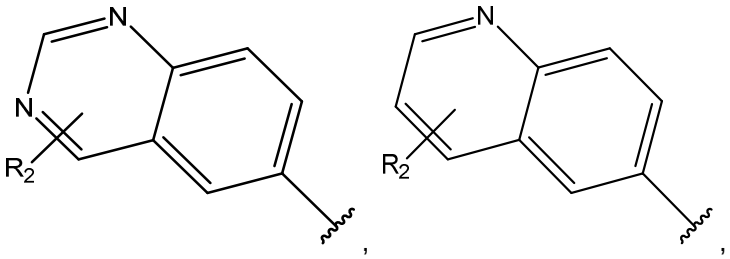
, , , or



;

wherein R_1 is optionally substituted on any available carbon atom by one or more R_2 substituent groups; and R_2 and R_3 are as defined in claim 1.

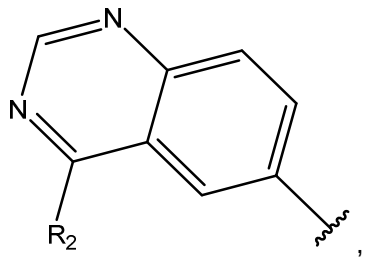
3. A compound according to any one of the preceding claims, or a pharmaceutically acceptable salt thereof, wherein R_1 is selected from:



, ,

wherein R_1 is optionally substituted on any available carbon atom by one or more R_2, and R_2 is as defined in claim 1.

4. A compound according to claims 1 to , or a pharmaceutically acceptable salt thereof, wherein R_1 is:



wherein R_2 is as defined in claim 1.

5. A compound according to any one of the preceding claims, or a pharmaceutically acceptable salt thereof, wherein each R_2, if present, is independently selected from (1-2C)alkyl, a 5-membered heteroaryl, halo, (1-2C)haloalkyl, (1-2C)haloalkoxy, (1-2C)hydroxyalkyl, cyano, $-(CR_{1C}R_{1D})_{q1}-OR_{1A}$;

wherein q1 is 0 or 1; and

wherein R_{1A} and R_{1B} are each independently selected from hydrogen or (1-2C)alkyl.

6. A compound according to any one of the preceding claims, or a pharmaceutically acceptable salt thereof, wherein each R_2, if present, is independently selected from methyl, ethyl or methoxy.

7. A compound according to any one of the preceding claims, or a pharmaceutically acceptable salt thereof, wherein R_3 is selected from hydrogen or (1-3C)alkyl.

8. A compound according to any one of the preceding claims, or a pharmaceutically acceptable salt thereof, wherein R_4 and R_5 are linked such that, together with the nitrogen atom to which they are attached, they form a heterocyclic ring which is optionally substituted on any available carbon atom by one or more R_{10C} substituent groups,

wherein R_{10C} is selected from oxo, halo, or cyano substituents, or a group of the formula:

$$–[CH_2]_n–L–Z$$

wherein

n is 0 to 2;

L is absent or selected from -O-, -S-, -SO-, -SO_2-, -N(R_{a2})-, -C(O)-, -C(O)O-, -OC(O)-, -C(O)N(R_{a2})-, -N(R_{a2})C(O)-, -N(R_{a2})C(O)N(R_{b2})-, -$S(O)_2$N(R_{a2})-, or -N(R_{a2})SO_2-, wherein R_{a2} and R_{b2} are each independently selected from hydrogen or methyl; and

Z is selected from hydrogen, (1-6C)alkyl, (3-6C)cycloalkyl, (3-6C)cycloalkyl(1-2C)alkyl, aryl, heterocyclyl, heterocyclyl(1-2C)alkyl or heteroaryl; and wherein Z is optionally substituted by one or more substituents selected from (1-2C)-alkyl, halo, (1-2C)haloalkyl, (1-2C)haloalkoxy, cyano, -NR_cR_d, -OR_c, -C(O)R_c, -C(O)OR_c, -OC(O)R_c, -C(O)N(R_c)R_d, -N(R_c)C(O)R_d, -$S(O)_yR_c$ (where y is 0, 1 or 2), -SO_2N(R_c)R_d, -N(R_c)SO_2R_d, -$(CH_2)_z$NR_cR_d (where z is 1 or 2) or oxo;

wherein any alkyl moiety in a substituent group on Z_1 is optionally further substituted by cyano, halo, hydroxy, amino, oxo, (1-2C)alkyl or (1-2C)alkoxy and R_c and R_d are each independently selected from hydrogen, (1-2C)alkyl, (1-2C)haloalkyl or (3-6C)cycloalkyl;

and wherein any available N atoms are optionally in the form of a N-oxide or are optionally substituted by one or more R_{10N}, wherein R_{10N} is -$S(O)_2NH_2$ or selected from:

(i) –Z_1;

(ii) –L_{1a}–Z_1; or

(iii) –[$CR_{8a}R_{8b}$]$_{1-2}$–L_{1b}–Z_1;

wherein

R_{8a} and R_{8b} are both hydrogen;

L_{1a} is selected from -C(O)-, -$S(O)_2$- or -$S(O)_2$N(R_{a1})-, wherein R_{a1} is hydrogen or methyl;

L_{1b} is absent or selected from -O-, -S-, -SO-, -SO_2-, -N(R_{a2})-, -C(O)-, -C(O)O-, -OC(O)-, -C(O)N(R_{a2})-, -N(R_{a2})C(O)-, -N(R_{a2})C(O)N(R_{b2})-, -$S(O)_2$N(R_{a2})-, or -N(R_{a2})SO_2, wherein R_{a2} and R_{b2} are each independently selected from hydrogen or methyl; and

Z_1 is selected from (1-6C)alkyl, (3-6C)cycloalkyl, aryl, heterocyclyl, heteroaryl, (3-6C)cycloalkyl(1-2C)alkyl or aryl(1-2C)alkyl, with the proviso that when Z_1 is a heterocyclyl group directly linked to a N atom it is a carbon-linked heterocyclyl; and wherein Z_1 is optionally substituted by one or more substituents selected from (1-2C)alkyl, halo, (1-2C)haloalkoxy, cyano, nitro,

$-NR_eR_f$, $-OR_e$, $-C(O)R_e$, $-C(O)OR_e$, $-OC(O)R_e$, $-C(O)N(R_e)R_f$, $-N(R_e)C(O)R_f$, $-S(O)_yR_e$ (where y is 0, 1 or 2), $-SO_2N(R_e)R_f$, $-N(R_e)SO_2R_f$, $-(CH_2)_zNR_eR_f$ (where z is 1, 2 or 3) or oxo, and wherein R_e and R_f are each independently selected from hydrogen or (1-2C)alkyl;

and wherein any S atoms present in the heterocyclic ring may optionally be present as S(=O), $S(=O)_2$ or $S(=O)(=NR_e)$ wherein R_e is selected from hydrogen,(1-3C)alkyl or (2-3C)alkanoyl.

9. A compound according to any one of the preceding claims, or a pharmaceutically acceptable salt thereof, wherein R_4 and R_5 are linked such that, together with the nitrogen atom to which they are attached, they form a heterocyclic ring which is optionally substituted on any available carbon atom by one or more R_{10C} substituent groups,

wherein R_{10C} is selected from oxo, halo, or cyano substituents, or a group of the formula:

$$–[CH_2]_n–L–Z$$

wherein

n is 0 to 2;

L is absent or selected from -O-, -S-, -SO-, $-SO_2-$, $-N(R_a)-$, -C(O)-, -C(O)O-, -OC(O)-, $-C(O)N(R_a)-$, $-N(R_a)C(O)-$, $-S(O)_2N(R_a)-$, or $-N(R_a)SO_2-$, wherein R_a and R_b are each independently selected from hydrogen or methyl; and

Z is selected from hydrogen, (1-4C)alkyl, (3-6C)cycloalkyl, (3-6C)cycloalkyl(1-2C)alkyl, phenyl, a 4-7 membered heterocyclyl, a 4-7 membered heterocyclyl(1-2C)alkyl or a 5 or 6-membered heteroaryl; and wherein Z is optionally substituted by one or more substituents selected from (1-2C)alkyl, halo, (1-2C)haloalkyl, (1-2C)haloalkoxy, cyano, $-NR_cR_d$, $-OR_c$, $-C(O)R_c$, $-C(O)OR_c$, $-OC(O)R_c$, $-C(O)N(R_c)R_d$, $-N(R_c)C(O)R_d$, $-S(O)_yR_c$ (where y is 0, 1 or 2), $-SO_2N(R_c)R_d$, $-N(R_c)SO_2R_d$, $-(CH_2)_zNR_cR_d$ (where z is 1 or 2) or oxo;

wherein R_c and R_d are each independently selected from hydrogen or (1-2C)alkyl;

and wherein any available N atoms are optionally in the form of a N-oxide or are optionally substituted by one or more R_{10N}, wherein R_{10N} is $-S(O)_2NH_2$ or selected from:

(i) $–Z_1$;

(ii) $–L_{1a}–Z_1$; or

(iii) $–[CR_{8a}R_{8b}]_{1-2}–L_{1b}–Z_1$;

wherein

R_{8a} and R_{8b} are both hydrogen;

L_{1a} is selected from -C(O)-, -$S(O)_2$- or -$S(O)_2N(R_{a1})$-, wherein R_{a1} is hydrogen;

L_{1b} is absent or selected from -O-, -S-, -SO-, -SO_2-, -$N(R_{a2})$-, -$C(O)N(R_{a2})$-, -$N(R_{a2})C(O)$-, -$S(O)_2N(R_{a2})$- or -$N(R_{a2})SO_2$, wherein R_{a2} is hydrogen; and

Z_1 is selected from (1-4C)alkyl, phenyl, a 4-7 membered heterocyclyl or a 5 or 6-membered heteroaryl, with the proviso that when Z_1 is a heterocyclyl group directly linked to a N atom it is a carbon-linked heterocyclyl; and wherein Z_1 is optionally substituted by one or more substituents selected from (1-2C)alkyl, halo, (1-2C)haloalkoxy, cyano, -NR_eR_f, -OR_e, -$C(O)R_e$, -$C(O)OR_e$, -$OC(O)R_e$, -$C(O)N(R_e)R_f$, -$N(R_e)C(O)R_f$, -$S(O)_yR_e$ (where y is 0, 1 or 2), -$SO_2N(R_e)R_f$, -$N(R_e)SO_2R_f$, -$(CH_2)_zNR_cR_d$ (where z is 1 or 2); and wherein R_e and R_f are each independently selected from hydrogen or methyl;

and wherein any S atoms present in the heterocyclic ring may optionally be present as S(=O), $S(=O)_2$ or S(=O)(=NR_e) wherein R_e is selected from hydrogen, (1-2C)alkyl or (2C)alkanoyl.

10. A compound according to any one of the preceding claims, or a pharmaceutically acceptable salt thereof, wherein R_4 and R_5 are linked such that, together with the nitrogen atom to which they are attached, they form a heterocyclic ring which is optionally substituted on any available carbon atom by one or more R_{10C} substituent groups, R_{10C} is selected from oxo, halo, cyano, or a group of the formula:

–L–Z

wherein

L is absent, -O- or -$N(R_a)$-, wherein R_a is hydrogen or methyl;

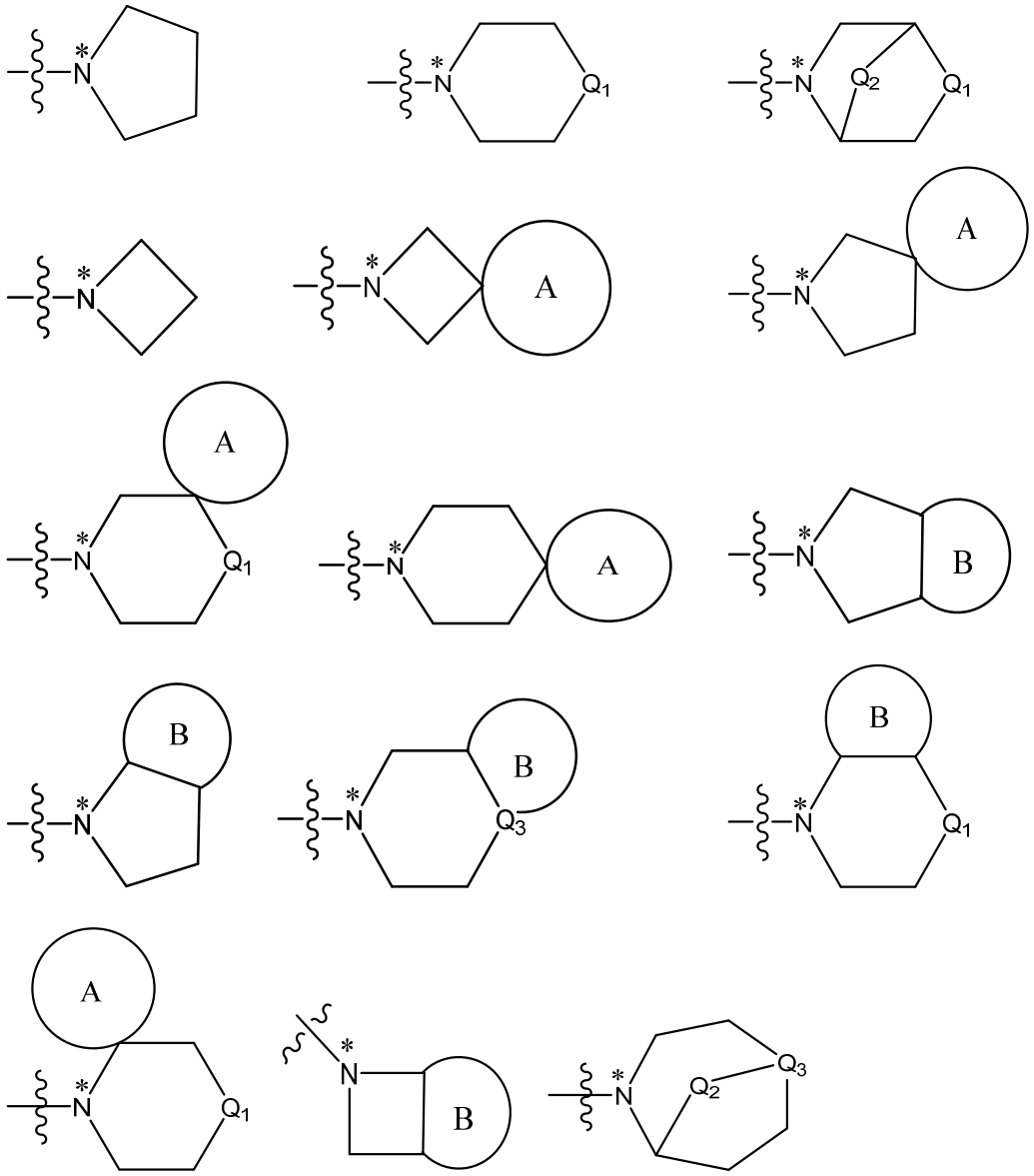
and Z is selected from (1-4C)alkyl, 4-7 membered heterocyclyl or (3-6C)cycloalkyl(1-2C)alkyl,

wherein any (1-4C)alkyl, 4-7 membered heterocyclyl or (3-6C)cycloalkyl(1-2C)alkyl, is optionally substituted by one or more substituents selected from cyano, -NR_cR_d or -OR_c, wherein R_c and R_d are each independently selected from hydrogen or methyl;

and wherein any available N atoms are optionally in the form of a N-oxide or are optionally substituted by one or more R_{10N}, wherein R_{10N} is (1-4C)alkyl,

and wherein any S atoms present in the heterocyclic ring may optionally be present as S(=O).

11. A compound according to any one of the preceding claims, or a pharmaceutically acceptable salt thereof, wherein R_4 and R_5 are linked such that, together with the nitrogen atom to which they are attached, they form a heterocyclic ring selected from any one of the following options:



wherein * denotes the N atom to which R_4 and R_5 are attached;

Q_1 is O, NH, S, S(O), $S(O)_2$, $S(O)(=NR_e)$, N-R_{10N}, CH_2, CHR_{10C} or $C(R_{10c})_2$;

Q_2 is -CH_2-, -CHR_{10C}-, -$C(R_{10c})_2$-, -CHR_{10C}-CH_2-, -CH_2-CHR_{10C}-, -CHR_{10C}-CHR_{10C}-, -$C(R_{10c})_2$-CH_2-, or -CH_2-$C(R_{10c})_2$-;

Q_3 is CH, CR_{10C} or N;

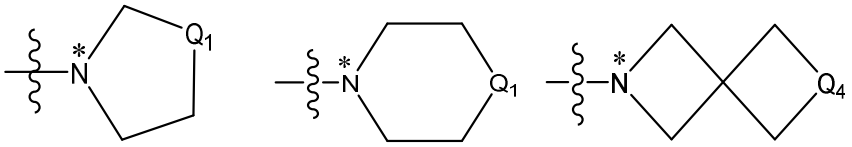
Ring A is a spiro-fused 4, 5 or 6 membered carbocyclic or heterocyclic ring;

Ring B is a fused 4, 5 or 6 membered carbocyclic or heterocyclic ring;

wherein R_e is selected from hydrogen or methyl;

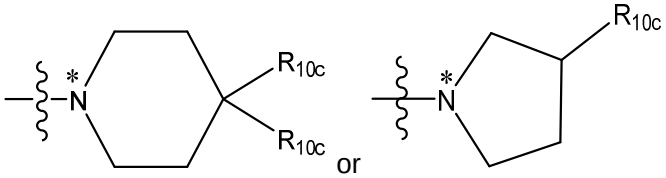
and wherein each of the heterocyclic ring systems is optionally substituted with one or more R_{10c} or R_{10N} substituent groups as defined in any one of claims 1, 8, 9 or 10.

12. A compound according to any one of the preceding claims, or a pharmaceutically acceptable salt thereof, wherein R_4 and R_5 are linked such that, together with the nitrogen atom to which they are attached, they form a heterocyclic ring selected from any one of the following options:



wherein * denotes the N atom to which R_4 and R_5 are attached;
Q_1 is O, NH, S, S(O), $S(O)_2$, $S(O)(=NR_e)$, N-R_{10N}, CH_2, CHR_{10C} or $C(R_{10c})_2$;
Q_4 is O, NH, S, S(O), $S(O)_2$, $S(O)(=NR_e)$, N-R_{10N}, CH_2, CHR_{10C} or $C(R_{10c})_2$;
wherein R_e is selected from hydrogen, (1-2C)alkyl or (2C)alkanoyl;
and wherein each of the heterocyclic ring systems is optionally substituted with one or more R_{10c} or R_{10N} substituent groups as defined in any one of claims 1, 8, 9 or 10.

13. A compound according to any one of the preceding claims, or a pharmaceutically acceptable salt thereof, wherein R_4 and R_5 are linked such that, together with the nitrogen atom to which they are attached, they form a heterocyclic ring of the structure:

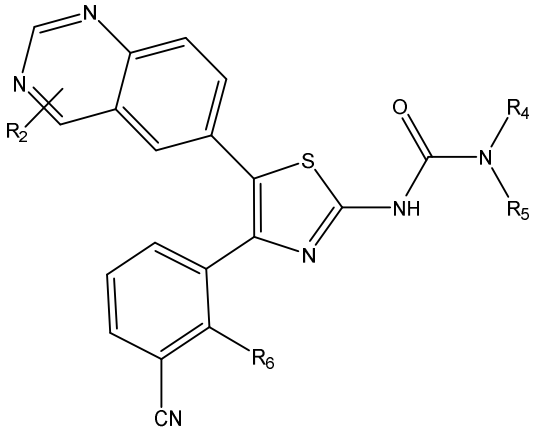


wherein * denotes the N atom to which R_4 and R_5 are attached;
and each R_{10c} is independently selected from the options defined in any one of claims 1, 8, 9 or 10.

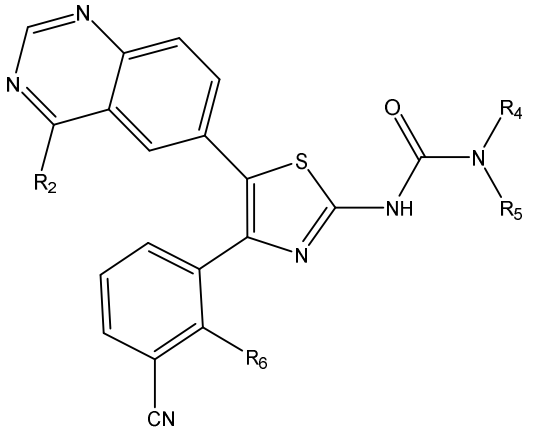
14. A compound according to any one of the preceding claims, or a pharmaceutically acceptable salt thereof, wherein R_6 is selected from hydrogen, halo or methyl.

15. A compound according to any one of the preceding claims, or a pharmaceutically acceptable salt thereof, wherein R_6 is hydrogen.

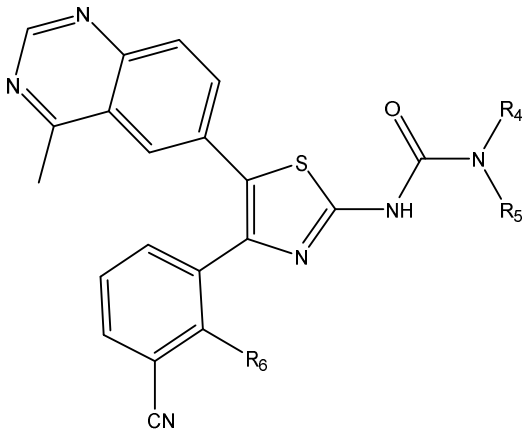
16. A compound of the formula IA, IB, IC, ID, IE or IF:



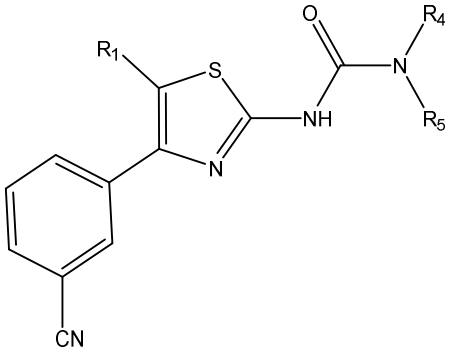
IA



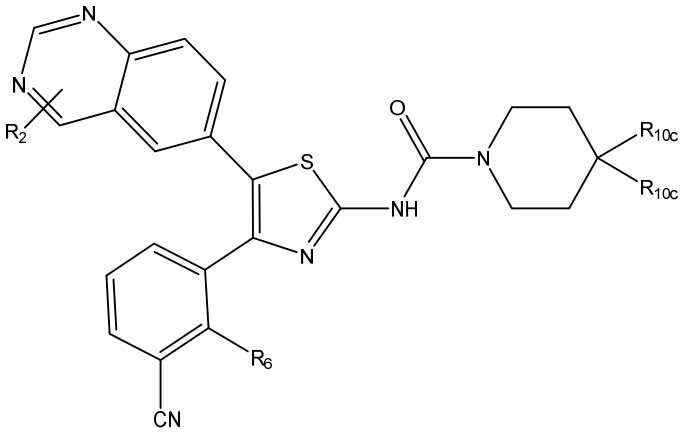
IB



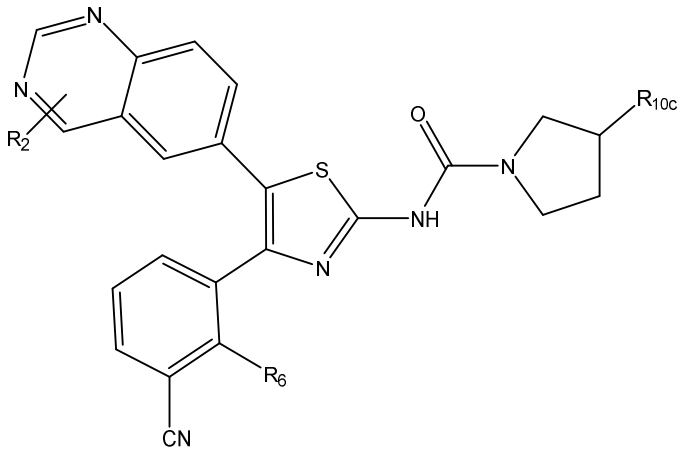
IC



ID



IE



IF

wherein R_2, R_4, R_5, R_6 and R_{10c} are each as defined in any one of claims 1 to 16.

17. A compound, or a pharmaceutically acceptable salt thereof, selected from any one of the following:

(3S)-3-Cyano-N-[4-(3-cyanophenyl)-5-(4-methylquinazolin-6-yl)thiazol-2-yl]-3-methyl-pyrrolidine-1-carboxamide;

N-[4-(3-Cyanophenyl)-5-(4-methylquinazolin-6-yl)thiazol-2-yl]-4-oxa-1,9-diazaspiro[5.5]undecane-9-carboxamide;

N-[4-(3-Cyanophenyl)-5-(4-methylquinazolin-6-yl)thiazol-2-yl]-2-(cyclopropylmethyl)piperazine-1-carboxamide;

N-[4-(3-Cyanophenyl)-5-(4-methyl-1H-indazol-6-yl)thiazol-2-yl]-2-oxa-6-azaspiro[3.3]heptane-6-carboxamide;

N-[4-(3-Cyanophenyl)-5-(7-methyl-3H-benzotriazol-5-yl)thiazol-2-yl]-2-oxa-6-azaspiro[3.3]heptane-6-carboxamide;

N-[4-(3-Cyanophenyl)-5-(1H-pyrrolo[2,3-b]pyridin-4-yl)thiazol-2-yl]-2-oxa-6-azaspiro[3.3]heptane-6-carboxamide;

N-[4-(3-Cyanophenyl)-5-(6-methyl-1H-pyrazolo[3,4-b]pyridin-4-yl)thiazol-2-yl]-2-oxa-6-azaspiro[3.3]heptane-6-carboxamide;

N-[4-(3-Cyanophenyl)-5-(4-methylquinazolin-6-yl)thiazol-2-yl]-4-piperazin-1-yl-piperidine-1-carboxamide;

N-[4-(3-Cyanophenyl)-5-(4-methylquinazolin-6-yl)thiazol-2-yl]-1-oxa-4,9-diazaspiro[5.5]undecane-9-carboxamide;

N-[4-(3-Cyanophenyl)-5-(4-methylquinazolin-6-yl)thiazol-2-yl]-6-oxa-2,9-diazaspiro[4.5]decane-2-carboxamide;

N-[4-(3-Cyanophenyl)-5-(4-methylquinazolin-6-yl)thiazol-2-yl]-5-oxa-2,8-diazaspiro[3.5]nonane-2-carboxamide;

N-[4-(3-Cyanophenyl)-5-(4-methylquinazolin-6-yl)thiazol-2-yl]-8-oxa-2,5-diazaspiro[3.5]nonane-2-carboxamide;

N-[4-(3-Cyanophenyl)-5-(4-methylquinazolin-6-yl)thiazol-2-yl]-9-oxa-2,6-diazaspiro[4.5]decane-2-carboxamide;

(3S)-N-[4-(3-Cyanophenyl)-5-(4-methylquinazolin-6-yl)thiazol-2-yl]-3-(1-hydroxy-1-methyl-ethyl)pyrrolidine-1-carboxamide;

4-Cyano-N-[4-(3-cyanophenyl)-5-(4-methylquinazolin-6-yl)thiazol-2-yl]-4-methyl-piperidine-1-carboxamide;

(3R)-N-[4-(3-Cyanophenyl)-5-(4-methylquinazolin-6-yl)thiazol-2-yl]-3-(1-hydroxy-1-methyl-ethyl)pyrrolidine-1-carboxamide;

(3R)-3-Cyano-N-[4-(3-cyanophenyl)-5-(4-methylquinazolin-6-yl)thiazol-2-yl]-3-methyl-pyrrolidine-1-carboxamide;

4-(1-Cyano-1-methyl-ethyl)-N-[4-(3-cyanophenyl)-5-(4-methylquinazolin-6-yl)thiazol-2-yl]piperazine-1-carboxamide;

N-[4-(3-Cyanophenyl)-5-(4-methylquinazolin-6-yl)thiazol-2-yl]-3-methyl-3,6-diazabicyclo[3.2.0]heptane-6-carboxamide;

N-[4-(3-Cyanophenyl)-5-(4-methylquinazolin-6-yl)thiazol-2-yl]-6-methyl-2,6-diazaspiro[3.3]heptane-2-carboxamide;

4-(1-Cyanoethyl)-N-[4-(3-cyanophenyl)-5-(4-methylquinazolin-6-yl)thiazol-2-yl]piperazine-1-carboxamide;

N-[4-(3-Cyanophenyl)-5-(4-methylquinazolin-6-yl)thiazol-2-yl]-4-(dimethylamino)piperidine-1-carboxamide;

N-[4-(3-Cyanophenyl)-5-(4-methylquinazolin-6-yl)thiazol-2-yl]-2-(1-hydroxy-1-methyl-ethyl)morpholine-4-carboxamide;

N-[4-(3-Cyanophenyl)-5-(4-methylquinazolin-6-yl)thiazol-2-yl]-2-[(dimethylamino)methyl]morpholine-4-carboxamide;

N-[4-(3-Cyanophenyl)-5-(4-methylquinazolin-6-yl)thiazol-2-yl]-3-(2-pyrrolidin-1-ylethoxy)pyrrolidine-1-carboxamide;

N-[4-(3-Cyanophenyl)-5-(4-methylquinazolin-6-yl)thiazol-2-yl]-4-methyl-1-oxa-4,9-diazaspiro[5.5]undecane-9-carboxamide;

N-[4-(3-Cyanophenyl)-5-(4-methylquinazolin-6-yl)thiazol-2-yl]-1-methyl-3,4,4a,5,7,7a-hexahydro-2H-pyrrolo[3,4-b]pyridine-6-carboxamide;

N-[4-(3-Cyanophenyl)-5-(4-methylquinazolin-6-yl)thiazol-2-yl]-4-(4-methylpiperazin-1-yl)piperidine-1-carboxamide;

N-[4-(3-Cyanophenyl)-5-(4-methylquinazolin-6-yl)thiazol-2-yl]-4-(1-methyl-4-piperidyl)piperazine-1-carboxamide;

N-[4-(3-Cyanophenyl)-5-(4-methylquinazolin-6-yl)thiazol-2-yl]-4-morpholino-piperidine-1-carboxamide;

4-(Cyanomethyl)-N-[4-(3-cyanophenyl)-5-(4-methylquinazolin-6-yl)thiazol-2-yl]piperazine-1-carboxamide;

(3S)-N-[4-(3-Cyanophenyl)-5-(4-methylquinazolin-6-yl)thiazol-2-yl]-3-(1-hydroxy-1-methyl-ethyl)piperazine-1-carboxamide;

N-[4-(3-Cyanophenyl)-5-(4-methylquinazolin-6-yl)thiazol-2-yl]-3-oxo-2,8-diazaspiro[4.5]decane-8-carboxamide;

N-[4-(3-Cyanophenyl)-5-(4-methylquinazolin-6-yl)thiazol-2-yl]-1,4-diazepane-1-carboxamide;

N-[4-(3-Cyanophenyl)-5-(4-methylquinazolin-6-yl)thiazol-2-yl]-1-oxa-6-azaspiro[3.3]heptane-6-carboxamide;

(4aR,7aS)-N-[4-(3-Cyanophenyl)-5-(4-methylquinazolin-6-yl)thiazol-2-yl]-4-methyl-2,3,4a,5,7,7a-hexahydropyrrolo[3,4-b][1,4]oxazine-6-carboxamide;

N-[4-(3-Cyanophenyl)-5-(4-methylquinazolin-6-yl)thiazol-2-yl]piperazine-1-carboxamide;

N-[4-(3-Cyanophenyl)-5-(4-methylquinazolin-6-yl)thiazol-2-yl]-4-methyl-piperazine-1-carboxamide;

N-[4-(3-Cyanophenyl)-5-(4-methylquinazolin-6-yl)thiazol-2-yl]-2-oxo-1,8-diazaspiro[4.5]decane-8-carboxamide;

N-[4-(3-Cyanophenyl)-5-(4-methylquinazolin-6-yl)thiazol-2-yl]-6-hydroxy-6-methyl-2-azaspiro[3.3]heptane-2-carboxamide;

3-Cyano-N-[4-(3-cyanophenyl)-5-(4-methylquinazolin-6-yl)thiazol-2-yl]-3-methyl-pyrrolidine-1-carboxamide;

N-[4-(3-Cyanophenyl)-5-(4-methylquinazolin-6-yl)thiazol-2-yl]-3-methyl-2-oxo-1-oxa-3,8-diazaspiro[4.5]decane-8-carboxamide;

N-[4-(3-Cyanophenyl)-5-(4-methylquinazolin-6-yl)thiazol-2-yl]-4-(2-hydroxyethyl)piperazine-1-carboxamide;

N-[4-(3-Cyanophenyl)-5-(4-methylquinazolin-6-yl)thiazol-2-yl]-4-(oxetan-3-yl)piperazine-1-carboxamide;

N-[4-(3-Cyanophenyl)-5-(4-methylquinazolin-6-yl)thiazol-2-yl]-2-oxa-6-azaspiro[3.3]heptane-6-carboxamide;

(2S)-N-[4-(3-Cyanophenyl)-5-(4-methylquinazolin-6-yl)thiazol-2-yl]-2-(1-hydroxy-1-methyl-ethyl)morpholine-4-carboxamide;

(2R)-N-[4-(3-cyanophenyl)-5-(4-methylquinazolin-6-yl)thiazol-2-yl]-2-(1-hydroxy-1-methyl-ethyl)morpholine-4-carboxamide;

(2S)-N-[4-(3-Cyanophenyl)-5-(4-methylquinazolin-6-yl)thiazol-2-yl]-2-(1-hydroxy-1-methyl-ethyl)morpholine-4-carboxamide;

(2R)-N-[4-(3-cyanophenyl)-5-(4-methylquinazolin-6-yl)thiazol-2-yl]-2-(1-hydroxy-1-methyl-ethyl)morpholine-4-carboxamide;

N-[4-(3-Cyanophenyl)-5-(2-methylquinazolin-7-yl)thiazol-2-yl]-2-oxa-6-azaspiro[3.3]heptane-6-carboxamide;

N-[4-(3-Cyanophenyl)-5-(2,4-dimethylquinazolin-6-yl)thiazol-2-yl]-2-oxa-6-azaspiro[3.3]heptane-6-carboxamide;

N-[4-(3-Cyanophenyl)-5-quinazolin-6-yl-thiazol-2-yl]-2-oxa-6-azaspiro[3.3]heptane-6-carboxamide;

N-[4-(3-Cyanophenyl)-5-(4-methyl-6-quinolyl)thiazol-2-yl]-2-oxa-6-azaspiro[3.3]heptane-6-carboxamide;

N-[4-(3-Cyanophenyl)-5-(4-methoxyquinazolin-6-yl)thiazol-2-yl]-2-oxa-6-azaspiro[3.3]heptane-6-carboxamide;

N-[4-(3-Cyanophenyl)-5-(4-ethylquinazolin-6-yl)thiazol-2-yl]-2-oxa-6-azaspiro[3.3]heptane-6-carboxamide;

4-Cyano-N-[4-(3-cyanophenyl)-5-(2,4-dimethyloxazol-5-yl)thiazol-2-yl]-4-methyl-piperidine-1-carboxamide;

N-[4-(3-Cyanophenyl)-5-(2,4-dimethyloxazol-5-yl)thiazol-2-yl]-2-oxa-6-azaspiro[3.3]heptane-6-carboxamide;

N-[4-(3-Cyanophenyl)-5-(1-methylpyrrolo[2,3-b]pyridin-3-yl)thiazol-2-yl]-2-oxa-6-azaspiro[3.3]heptane-6-carboxamide;

N-[4-(3-Cyanophenyl)-5-(1H-pyrrolo[2,3-b]pyridin-3-yl)thiazol-2-yl]-2-oxa-6-azaspiro[3.3]heptane-6-carboxamide;

N-[4-(3-Cyanophenyl)-5-(3,8-dimethylimidazo[1,2-a]pyridin-6-yl)thiazol-2-yl]-2-oxa-6-azaspiro[3.3]heptane-6-carboxamide;

4-Cyano-N-[4-(3-cyanophenyl)-5-(5-methyl-1H-pyrazolo[4,3-b]pyridin-7-yl)thiazol-2-yl]-4-methyl-piperidine-1-carboxamide;

N-[4-(3-Cyanophenyl)-5-(4,8-dimethylquinazolin-6-yl)thiazol-2-yl]-2-oxa-6-azaspiro[3.3]heptane-6-carboxamide;

N-[4-(3-Cyanophenyl)-5-(1-methylpyrrolo[2,3-b]pyridin-4-yl)thiazol-2-yl]-2-oxa-6-azaspiro[3.3]heptane-6-carboxamide;

N-[4-(3-Cyanophenyl)-5-(3-methylimidazo[1,2-a]pyridin-6-yl)thiazol-2-yl]-2-oxa-6-azaspiro[3.3]heptane-6-carboxamide;

N-[4-(3-Cyanophenyl)-5-(5-methyl-1H-pyrazolo[4,3-b]pyridin-7-yl)thiazol-2-yl]-2-oxa-6-azaspiro[3.3]heptane-6-carboxamide;

N-[4-(3-Cyanophenyl)-5-(1,6-dimethylpyrrolo[2,3-b]pyridin-4-yl)thiazol-2-yl]-2-oxa-6-azaspiro[3.3]heptane-6-carboxamide;

N-[4-(3-Cyanophenyl)-5-(3-methylbenzimidazol-5-yl)thiazol-2-yl]-2-oxa-6-azaspiro[3.3]heptane-6-carboxamide;

N-[4-(3-Cyanophenyl)-5-imidazo[1,2-a]pyridin-6-yl-thiazol-2-yl]-2-oxa-6-azaspiro[3.3]heptane-6-carboxamide;

N-[4-(3-Cyanophenyl)-5-(7-methyl-1H-indazol-5-yl)thiazol-2-yl]-2-oxa-6-azaspiro[3.3]heptane-6-carboxamide;

N-[4-(3-Cyanophenyl)-5-(2,7-dimethylindazol-5-yl)thiazol-2-yl]-2-oxa-6-azaspiro[3.3]heptane-6-carboxamide;

N-[4-(3-Cyanophenyl)-5-(8-methylimidazo[1,2-a]pyridin-6-yl)thiazol-2-yl]-2-oxa-6-azaspiro[3.3]heptane-6-carboxamide;

N-[4-(3-Cyanophenyl)-5-(1,7-dimethylindazol-5-yl)thiazol-2-yl]-2-oxa-6-azaspiro[3.3]heptane-6-carboxamide;

N-[4-(3-Cyanophenyl)-5-(6-methylpyridazin-4-yl)thiazol-2-yl]-2-oxa-6-azaspiro[3.3]heptane-6-carboxamide;

N-[4-(3-Cyanophenyl)-5-[5-methyl-6-(triazol-2-yl)-3-pyridyl]thiazol-2-yl]-2-oxa-6-azaspiro[3.3]heptane-6-carboxamide;

N-[4-(3-Cyanophenyl)-5-pyrazolo[1,5-a]pyridin-5-yl-thiazol-2-yl]morpholine-4-carboxamide;

N-[4-(3-Cyanophenyl)-5-(6-methyl-1H-pyrrolo[2,3-b]pyridin-4-yl)thiazol-2-yl]-2-oxa-6-azaspiro[3.3]heptane-6-carboxamide; or

N-[5-(1,3-benzoxazol-6-yl)-4-(3-cyanophenyl)thiazol-2-yl]-2-oxa-6-azaspiro[3.3]heptane-6-carboxamide.

18. A pharmaceutical composition comprising a compound according to any one of claims 1 to 17, or a pharmaceutically acceptable salt thereof, in admixture with a pharmaceutically acceptable diluent or carrier.

19. A compound according to any one of claims 1 to 17, or a pharmaceutically acceptable salt thereof, or a pharmaceutical composition according to claim 18, for use in therapy.

20. A compound according to any one of claims 1 to 17, or a pharmaceutically acceptable salt thereof, or a pharmaceutical composition according to claim 18, for use:
(i) in the treatment of a proliferative condition;
(ii) in the treatment of cancer;
(iii) in the treatment of cancer, wherein the compound or pharmaceutical composition is administered in combination with one or more additional anticancer agents;
(iv) in the treatment of cancer, wherein the compound or pharmaceutical composition is administered in combination with one or more additional anticancer agents selected from the group consisting of:

1) other forms of cancer immunotherapy and anti-cancer chemotherapeutic agents;
2) adenosine pathway modulators, including, but not limited to A2b antagonists, CD73 inhibitors and CD39 inhibitors;
3) anti-PD-1 and PDL-1 antibodies (e.g. cetrelimab, pembrolizumab, nivolumab, durvalumab, avelumab and atezolizumab); and
4) anti-CTLA4 antibodies (e.g ipilimumab).