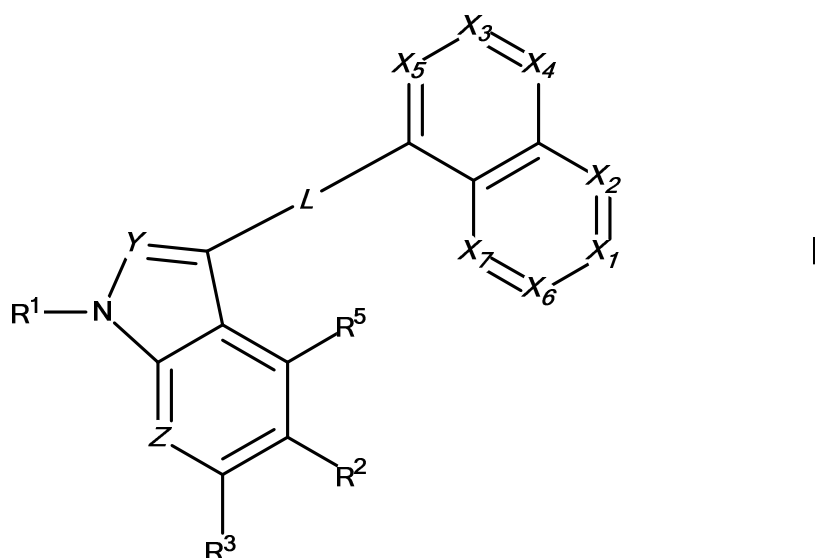


Claims

1. A compound of formula I,



wherein,

Z represents N or CR⁴;

L represents a linking group selected from the group consisting of -C(R^{6a})=C(R^{6b})-, or -NR^{7b}C(O)-;

X₁ to X₅ are independently N or CR⁸, provided that at least one of X₁ and X₂ is N;

X₆ and X₇ are independently N or CR⁹;

Y represents N or CR¹⁰;

R¹ represents H, -C(O)R^{11a} or -C(S)R^{11b};

R² to R⁴, R⁸ and R¹⁰, at each occurrence, independently represents:

(a) H;

(b) halo;

(c) CN;

(d) C₁₋₆ alkyl, C₂₋₆ alkenyl, C₂₋₆ alkynyl (which C₁₋₆ alkyl, C₂₋₆ alkenyl and C₂₋₆ alkynyl groups are unsubstituted or substituted by one or more substituents selected from halo, nitro, CN, C₁₋₆ alkyl, C₂₋₆ alkenyl, C₂₋₆ alkynyl (which C₁₋₆ alkyl, C₂₋₆ alkenyl, and C₂₋₆ alkynyl groups are unsubstituted or substituted by one or more substituents selected from OH, =O, halo, C₁₋₄ alkyl and C₁₋₄ alkoxy), Cy¹ (which Cy¹ group is unsubstituted or is substituted by one or more substituents selected from halo, nitro, CN, C₁₋₆ alkyl, C₂₋₆ alkenyl,

C₂₋₆ alkynyl (which C₁₋₆ alkyl, C₂₋₆ alkenyl and C₂₋₆ alkynyl groups are optionally substituted by one or more substituents selected from OH, =O, halo, C₁₋₄ alkyl and C₁₋₄ alkoxy), OR^{12a}, S(O)_qR^{12b}, S(O)₂NR^{12c}R^{12d}, NR^{12e}S(O)₂R^{12f}, NR^{12g}R^{12h}, aryl and Het¹);

(e) Cy² (which Cy² group is unsubstituted or is substituted by one or more substituents selected from halo, nitro, CN, C₁₋₆ alkyl, C₂₋₆ alkenyl, C₂₋₆ alkynyl (which C₁₋₆ alkyl, C₂₋₆ alkenyl and C₂₋₆ alkynyl groups are optionally substituted by one or more substituents selected from OH, =O, halo, C₁₋₄ alkyl and C₁₋₄ alkoxy), OR^{13a}, S(O)_qR^{13b}, S(O)₂NR^{13c}R^{13d}, NR^{13e}S(O)₂R^{13f}, NR^{13g}R^{13h}, aryl and Het²),

(f) Het^a (which Het^a group is unsubstituted or substituted by one or more substituents selected from halo, nitro, CN, C₁₋₆ alkyl, C₂₋₆ alkenyl, C₂₋₆ alkynyl (which C₁₋₆ alkyl, C₂₋₆ alkenyl and C₂₋₆ alkynyl groups are optionally substituted by one or more substituents selected from OH, =O, halo, C₁₋₄ alkyl and C₁₋₄ alkoxy), OR^{14a}, S(O)_qR^{14b}, S(O)₂NR^{14c}R^{14d}, NR^{14e}S(O)₂R^{14f}, NR^{14g}R^{14h}, aryl and Het³);

(g) OR^{15a};

(h) S(O)_qR^{15b};

(i) S(O)₂NR^{15c}R^{15d};

(j) NR^{15e}S(O)₂R^{15f};

(k) NR^{15g}R^{15h},

where R³, R⁴ and each R⁸, when present, may also, in addition, independently represent nitro;

R⁵ and R⁹, at each occurrence, independently represent H, halo, CN, nitro, C₁₋₄ alkyl (which C₁₋₄ alkyl group is unsubstituted or substituted by one or more substituents selected from halo, nitro, CN, OR^{16a} and NR^{16g}R^{16h}), OR^{17a}, S(O)_qR^{17b}, S(O)₂NR^{17c}R^{17d}, NR^{17e}S(O)₂R^{17f} or NR^{17g}R^{17h},

R^{6a} represents H, CN or -C(O)NR^{18a}R^{18b};

R^{6b}, independently at each occurrence, represents H, CN or C₁₋₄ alkyl, which C₁₋₄ alkyl group is unsubstituted or substituted with halo or OR¹⁹;

R^{7b} represent H or C₁₋₄ alkyl, which C₁₋₄ alkyl group is unsubstituted or substituted with halo or OR²⁰;

R^{11a} and R^{11b}, when present, represent,

(a) H;

(b) C₁₋₆ alkyl, C₂₋₆ alkenyl, C₂₋₆ alkynyl (which C₁₋₆ alkyl, C₂₋₆ alkenyl and C₂₋₆ alkynyl groups are unsubstituted or substituted by one or more substituents selected from halo, nitro, =O, CN, C₁₋₆ alkyl, C₂₋₆ alkenyl, C₂₋₆ alkynyl (which C₁₋₆ alkyl, C₂₋₆ alkenyl and C₂₋₆ alkynyl groups are unsubstituted or substituted by one or more substituents selected from OH, =O, halo, C₁₋₄ alkyl and C₁₋₄ alkoxy), OR^{21a}, S(O)_qR^{21b}, S(O)₂NR^{21c}R^{21d}, NR^{21e}S(O)₂R^{21f}, NR^{21g}R^{21h}, aryl, Cy³ (which Cy³ group is unsubstituted or is substituted by

one or more substituents selected from halo, nitro, CN, C₁₋₆ alkyl, C₂₋₆ alkenyl, C₂₋₆ alkynyl (which C₁₋₆ alkyl, C₂₋₆ alkenyl and C₂₋₆ alkynyl groups are optionally substituted by one or more substituents selected from OH, =O, halo, C₁₋₄ alkyl and C₁₋₄ alkoxy), OR^{22a}, S(O)_qR^{22b}, S(O)₂NR^{22c}R^{22d}, NR^{22e}S(O)₂R^{22f}, NR^{22g}R^{22h}, aryl and Het⁴) and Het⁵);

(c) C₃₋₁₀ cycloalkyl, C₄₋₁₀ cycloalkenyl (which C₃₋₁₀ cycloalkyl and C₄₋₁₀ cycloalkenyl groups are optionally substituted by one or more substituents selected from halo, OH, =O, C₁₋₆ alkyl and C₁₋₆ alkoxy);

(d) Het^b (which Het^b group is unsubstituted or substituted by one or more substituents selected from halo, nitro, CN, C(O)OC₁₋₄ alkyl, C₁₋₆ alkyl, C₂₋₆ alkenyl, C₂₋₆ alkynyl (which C₁₋₆ alkyl, C₂₋₆ alkenyl and C₂₋₆ alkynyl groups are optionally substituted by one or more substituents selected from Het⁸, OH, =O, halo, C₁₋₄ alkyl and C₁₋₄ alkoxy), OR^{23a}, S(O)_qR^{23b}, S(O)₂NR^{23c}R^{23d}, NR^{23e}S(O)₂R^{23f}, NR^{23g}R^{23h}, aryl and Het⁶),

(e) OR^{24a};

(f) NR^{24b}S(O)₂R^{24c};

(g) NR^{24d}R^{24e};

R^{12a} to R^{12h}, R^{13a} to R^{13h}, R^{14a} to R^{14h}, R^{15a} to R^{15h}, R^{16a} to R^{16h}, R^{17a} to R^{17h}, R^{18a}, R^{18b}, R¹⁹, R²⁰, R^{21a} to R^{21h}, R^{22a} to R^{22h}, R^{23a} to R^{23h} and R^{24a} to R^{24e} independently represent, at each occurrence, H, C₁₋₆ alkyl, C₂₋₆ alkenyl, C₂₋₆ alkynyl (which C₁₋₆ alkyl, C₂₋₆ alkenyl and C₂₋₆ alkynyl groups are optionally substituted by one or more substituents selected from halo, nitro, =O, C(O)OC₁₋₄ alkyl, CN, C₁₋₆ alkyl, C₂₋₆ alkenyl, C₂₋₆ alkynyl, C₃₋₆ cycloalkyl (which C₂₋₆ alkenyl, C₂₋₆ alkynyl, C₃₋₆ cycloalkyl groups are optionally substituted by one or more substituents selected from OH, =O, halo, C₁₋₄ alkyl and C₁₋₄ alkoxy), OR^{25a}, S(O)_qR^{25b}, S(O)₂NR^{25c}R^{25d}, NR^{25e}S(O)₂R^{25f}, NR^{25g}R^{25h}, aryl and Het⁷), C₃₋₁₀ cycloalkyl, or C₄₋₁₀ cycloalkenyl (which C₃₋₁₀ cycloalkyl and C₄₋₁₀ cycloalkenyl groups are optionally substituted by one or more substituents selected from halo, OH, =O, C₁₋₆ alkyl and C₁₋₆ alkoxy) or Het^c, or

R^{12-17c} and R^{12-17d}, R^{12-17g} and R^{12-17h}, R^{21-23c} and R^{21-23d}, R^{21-23g} and R^{21-23h}, R^{24b} and R^{24c}, and R^{24d} and R^{24e} may represent, together with the nitrogen atom to which they are attached, a 3- to 10-membered heterocyclic ring that may be aromatic, fully saturated or partially unsaturated and which may additionally contain one or more heteroatoms selected from O, S and N, which heterocyclic ring is optionally substituted by one or more substituents selected from halo, nitro, CN, C₁₋₆ alkyl, C₂₋₆ alkenyl, C₂₋₆ alkynyl (which C₁₋₆ alkyl, C₂₋₆ alkenyl and C₂₋₆ alkynyl groups are optionally substituted by one or more substituents selected from OH, =O, halo, C₁₋₄ alkyl and C₁₋₄ alkoxy);

Het¹ to Het⁸ (e.g. Het¹ to Het⁷) and Het^a to Het^c independently represent a 4- to 14-membered heterocyclic groups containing one or more heteroatoms selected from O, S and N, which heterocyclic groups may comprise one, two or three rings and may be substituted

by one or more substituents selected from =O, halo, C₁₋₆ alkyl, which C₁₋₆ alkyl group is optionally substituted by one or more substituents selected from halo, -OR^{26a}, -NR^{26b}R^{26c}, -C(O)OR^{26d} and -C(O)NR^{26e}R^{26f};

Cy¹ to Cy³, at each occurrence, independently represents a 3- to 10-membered aromatic, fully saturated or partially unsaturated carbocyclic ring;

R^{25a} to R^{25h} and R^{26a} to R^{26f} independently represent at each occurrence, H, C₁₋₄ alkyl, C₂₋₄ alkenyl, C₂₋₄ alkynyl which C₁₋₄ alkyl, C₂₋₄ alkenyl and C₂₋₄ alkynyl groups are optionally substituted by one or more substituents selected from halo, nitro, CN, C₁₋₄ alkyl, C₂₋₄ alkenyl, C₂₋₄ alkynyl (which C₁₋₄ alkyl, C₂₋₄ alkenyl and C₂₋₄ alkynyl groups are optionally substituted by one or more substituents selected from OH, =O, halo, C₁₋₄ alkyl and C₁₋₄ alkoxy), C₃₋₆ cycloalkyl, or C₄₋₆ cycloalkenyl (which C₃₋₆ cycloalkyl and C₄₋₆ cycloalkenyl groups are optionally substituted by one or more substituents selected from halo, OH, =O, C₁₋₄ alkyl and C₁₋₄ alkoxy),

q represents 0, 1 or 2, or

a pharmaceutically acceptable salt or solvate thereof.

2. The compound according to Claim 1, wherein:

- (a) L represents -C(R^{6a})=C(R^{6b})-; and/or
- (b) X₁ to X₃ are independently N or CR⁸, X₄ and X₅ are independently CR⁸, and X₆ and X₇ are independently CR⁹; and/or
- (c) Y represents CR¹⁰ and/or Z represents CR⁴; and/or
- (d) R¹ represents H, or -C(O)R^{11a}.

3. The compound according to Claim 1, wherein:

(a) R² represents:

- (i) H;
- (ii) Br, Cl, F;
- (iii) C₁₋₄ alkyl which is unsubstituted or substituted by one or more substituents selected from halo, nitro, CN, C₁₋₃ alkyl (which C₁₋₃ alkyl group is unsubstituted or substituted by one or more substituents selected from OH, =O, halo, C₁₋₄ alkyl and C₁₋₄ alkoxy), Cy¹ (which Cy¹ group is unsubstituted or is substituted by one or more substituents selected from halo, CN, C₁₋₃ alkyl (which C₁₋₃ alkyl group is unsubstituted or substituted by one or more substituents selected from OH, =O, halo, C₁₋₄ alkyl and C₁₋₄ alkoxy), OR^{12a}, NR^{12g}R^{12h}, aryl and Het¹);

(iv) Cy² (which Cy² group is unsubstituted or is substituted by one or more substituents selected from halo, CN, C₁₋₃ alkyl (which C₁₋₃ alkyl group is optionally substituted

by one or more substituents selected from OH, =O, halo, C₁₋₄ alkyl and C₁₋₄ alkoxy), OR^{13a}, NR^{13g}R^{13h}, aryl and Het²);

(v) Het^a (which Het^a group is unsubstituted or substituted by one or more substituents selected from halo, nitro, CN, C₁₋₃ alkyl (which C₁₋₃ alkyl group is optionally substituted by one or more substituents selected from OH, =O, halo, C₁₋₄ alkyl and C₁₋₄ alkoxy), OR^{14a}, NR^{14g}R^{14h}, aryl and Het³);

(vi) OR^{15a}; or

(vii) NR^{15g}R^{15h}; and/or

(b) R³, R⁴, R⁸ and R¹⁰, at each occurrence, independently represents:

(i) H;

(ii) Br, Cl, F;

(iii) CN;

(iv) C₁₋₄ alkyl, C₂₋₄ alkenyl, C₂₋₄ alkynyl (which C₁₋₄ alkyl, C₂₋₄ alkenyl and C₂₋₄ alkynyl groups are unsubstituted or substituted by one or more substituents selected from halo, nitro, CN, C₁₋₃ alkyl (which C₁₋₃ alkyl group is unsubstituted or substituted by one or more substituents selected from OH, =O, halo, C₁₋₄ alkyl and C₁₋₄ alkoxy), Cy¹ (which Cy¹ group is unsubstituted or is substituted by one or more substituents selected from halo, CN, C₁₋₃ alkyl (which C₁₋₃ alkyl group is unsubstituted or substituted by one or more substituents selected from OH, =O, halo, C₁₋₄ alkyl and C₁₋₄ alkoxy), OR^{12a}, NR^{12g}R^{12h}, aryl and Het¹),

(v) Cy² (which Cy² group is unsubstituted or is substituted by one or more substituents selected from halo, CN, C₁₋₃ alkyl (which C₁₋₃ alkyl group is unsubstituted or substituted by one or more substituents selected from OH, =O, halo, C₁₋₄ alkyl and C₁₋₄ alkoxy), OR^{13a}, NR^{13g}R^{13h}, aryl and Het²);

(vi) Het^a (which Het^a group is unsubstituted or substituted by one or more substituents selected from halo, nitro, CN, C₁₋₃ alkyl (which C₁₋₃ alkyl group is optionally substituted by one or more substituents selected from OH, =O, halo, C₁₋₄ alkyl and C₁₋₄ alkoxy), OR^{14a}, NR^{14g}R^{14h}, aryl and Het³);

(vii) OR^{15a};

(viii) NR^{15g}R^{15h}; or

(ix) nitro; and/or

(c) R⁵ and R⁹, at each occurrence, independently represent H, Br, Cl, F, CN, nitro, C₁₋₄ alkyl (which C₁₋₄ alkyl group is unsubstituted or substituted by one or more substituents selected from Br, Cl, F, OR^{16a} and NR^{16g}R^{16h}), OR^{17a} or NR^{17g}R^{17h}; and/or

(d) R^{6a} represents H or CN; and

R^{6b} , independently at each occurrence, represents H or C_{1-4} alkyl, which C_{1-4} alkyl group is unsubstituted or substituted with F or OR^{19} ; and/or

(e) R^{11a} represents,

(i) C_{1-5} alkyl which group is unsubstituted or substituted by one or more substituents selected from halo, =O, CN, C_{1-3} alkyl (which C_{1-3} alkyl group is unsubstituted or substituted by one or more substituents selected from OH, =O, halo, C_{1-4} alkyl and C_{1-4} alkoxy), OR^{21a} , $NR^{21g}R^{21h}$, aryl, Cy^3 (which Cy^3 group is unsubstituted or is substituted by one or more substituents selected from halo, nitro, CN, C_{1-3} alkyl (which C_{1-3} alkyl group is unsubstituted or substituted by one or more substituents selected from OH, =O, halo, C_{1-4} alkyl and C_{1-4} alkoxy), OR^{22a} , $NR^{22g}R^{22h}$, aryl and Het^4) and Het^5 ;

(ii) C_{3-6} cycloalkyl which group is unsubstituted or substituted by one or more substituents selected from halo, OH, =O, C_{1-4} alkyl and C_{1-4} alkoxy;

(iii) Het^b (which Het^b group is unsubstituted or substituted by one or more substituents selected from halo, nitro, CN, $C(O)OC_{1-4}$ alkyl, C_{1-5} alkyl, (which C_{1-5} alkyl group is unsubstituted or substituted by one or more substituents selected from Het^8 , OH, =O, halo, C_{1-4} alkyl and C_{1-4} alkoxy), OR^{23a} , $NR^{23g}R^{23h}$, aryl and Het^6);

(iv) OR^{24a} ; or

(v) $NR^{24d}R^{24e}$.

4. The compound according to Claim 1, wherein:

(a) R^{12a} to R^{12h} , R^{13a} to R^{13h} , R^{14a} to R^{14h} , R^{15a} to R^{15h} , R^{16a} to R^{16h} , R^{17a} to R^{17h} , R^{18a} , R^{18b} , R^{19} , R^{20} , R^{21a} to R^{21h} , R^{22a} to R^{22h} , R^{23a} to R^{23h} and R^{24a} to R^{24e} independently represent, at each occurrence, H, C_{1-4} alkyl, C_{2-4} alkenyl (which C_{1-4} alkyl and C_{2-4} alkenyl groups are optionally substituted by one or more substituents selected from halo, nitro, =O, $C(O)OC_{1-4}$ alkyl, CN, C_{1-3} alkyl, C_{5-6} cycloalkyl (which C_{1-3} alkyl and C_{5-6} cycloalkyl groups are optionally substituted by one or more substituents selected from OH, =O, halo, C_{1-4} alkyl and C_{1-4} alkoxy), OR^{25a} , $NR^{25g}R^{25h}$, aryl and Het^7), C_{4-6} cycloalkyl, or C_{5-6} cycloalkenyl (which C_{4-6} cycloalkyl and C_{5-6} cycloalkenyl groups are optionally substituted by one or more substituents selected from halo, OH, =O, C_{1-4} alkyl and C_{1-4} alkoxy) or Het^c , or

R^{12-17c} and R^{12-17d} , R^{12-17g} and R^{12-17h} , R^{21-23c} and R^{21-23d} , R^{21-23g} and R^{21-23h} , R^{24b} and R^{24c} , and R^{24d} and R^{24e} may represent, together with the nitrogen atom to which they are attached, a 3- to 6-membered heterocyclic ring that may be aromatic, fully saturated or partially unsaturated and which may additionally contain one or more heteroatoms selected from O, S and N, which heterocyclic ring is optionally substituted by one or more substituents selected from halo, nitro, CN, C_{1-3} alkyl (which C_{1-3} alkyl group is unsubstituted

or substituted by one or more substituents selected from OH, =O, halo, C₁₋₄ alkyl and C₁₋₄ alkoxy); and/or

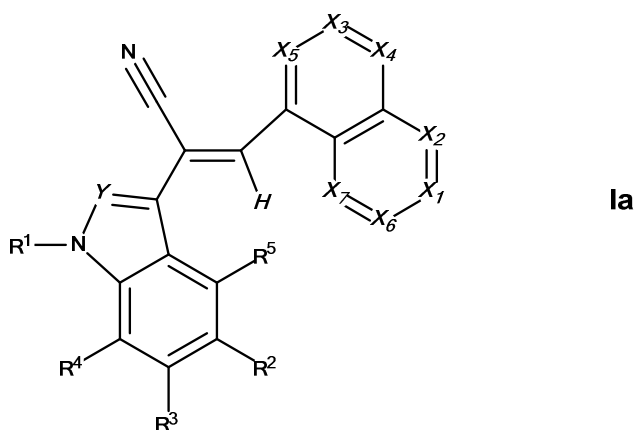
(b) Het¹ to Het⁸ (e.g. Het¹ to Het⁷) and Het^a to Het^c independently represent a 4- to 10-membered heterocyclic group containing one or more heteroatoms selected from O, S and N, which heterocyclic groups may comprise one, two or three rings and may be substituted by one or more substituents selected from =O, halo, C₁₋₃ alkyl, which C₁₋₃ alkyl group is optionally substituted by one or more substituents selected from halo, -OR^{26a}, -NR^{26b}R^{26c}, -C(O)OR^{26d} and -C(O)NR^{26e}R^{26f}; and/or

(c) Cy¹ to Cy³, at each occurrence, independently represent a 4- to 6-membered aromatic, fully saturated or partially unsaturated carbocyclic ring; and/or

(d) R^{25a} to R^{25h} and R^{26a} to R^{26f} independently represent at each occurrence, H, C₁₋₄ alkyl, which C₁₋₄ alkyl group is optionally substituted by one or more substituents selected from halo, nitro, CN, C₁₋₄ alkyl, (which C₁₋₄ alkyl group is unsubstituted or substituted by one or more substituents selected from OH, =O, halo, C₁₋₄ alkyl and C₁₋₄ alkoxy), C₃₋₆ cycloalkyl (which C₃₋₆ cycloalkyl group is unsubstituted or substituted by one or more substituents selected from halo, OH, =O, C₁₋₄ alkyl and C₁₋₄ alkoxy).

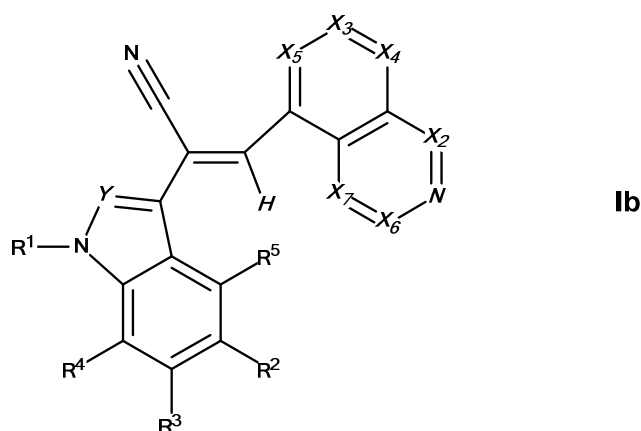
5. The compound according to Claim 1, wherein:

(a) L represents -C(CN)=C(H)-, Z represents CR⁴, and the compound of formula I is represented as a compound of formula Ia,



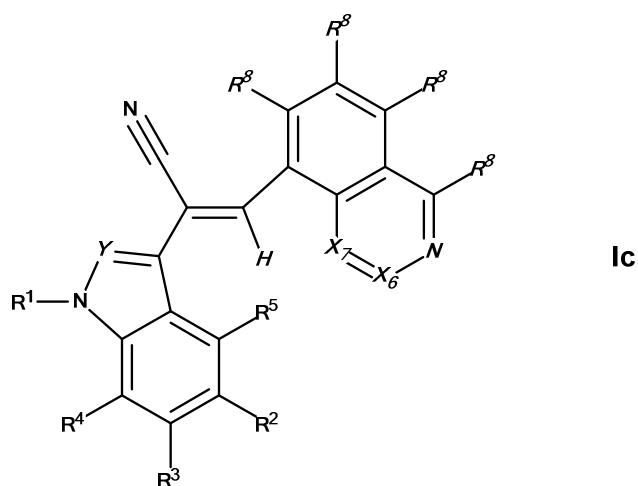
provided that no more than three of X₁ to X₇ represent N; and/or

(b) L represents $-\text{C}(\text{CN})=\text{C}(\text{H})-$, Z represents CR^4 , X_1 represents N, and the compound of formula I may be represented as a compound of formula Ib,



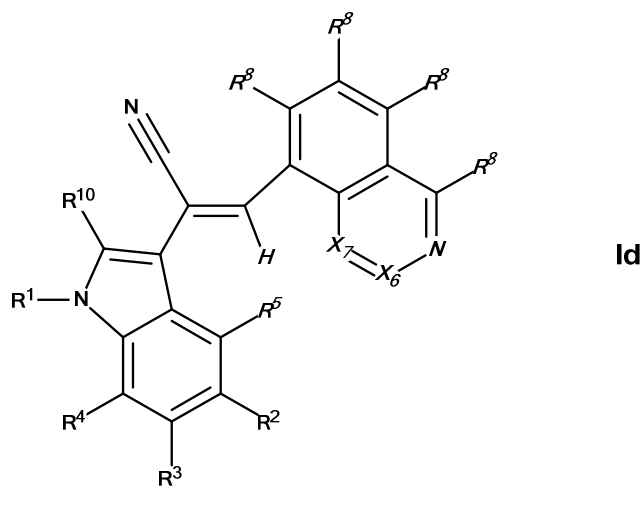
provided that no more than three of X_2 to X_7 represent N; and/or

(c) L represents $-\text{C}(\text{CN})=\text{C}(\text{H})-$, X_1 represents N, Z represents CR^4 , and X_2 to X_5 each represent CR^8 , and the compound of formula I may be represented as a compound of formula Ic,

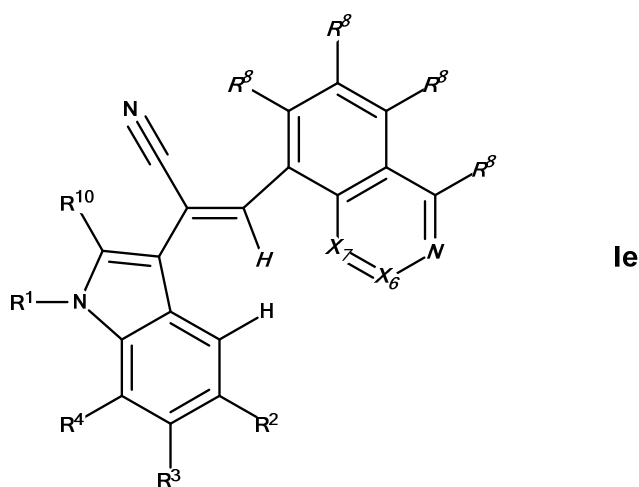


; and/or

(d) L represents $-\text{C}(\text{CN})=\text{C}(\text{H})-$, X_1 represents N, X_2 to X_5 each represent CR^8 , Z represents CR^4 , and Y represents CR^{10} , and the compound of formula I may be represented as a compound of formula Id,



(e) L represents $-\text{C}(\text{CN})=\text{C}(\text{H})-$, X_1 represents N, X_2 to X_5 each represent CR^8 , Z represents CR^4 , Y represents CR^{10} and R^5 represents H, and the compound of formula I may be represented as a compound of formula Ie,



6. The compound according to Claim 1, wherein when L represents $-\text{C}(\text{R}^{6a})=\text{C}(\text{R}^{6b})-$, the $\text{C}=\text{C}$ double bond is in the *E*- or *Z*-configuration.

7. The compound according to Claim 1, wherein:

(a) R^2 represents:

- (i) H;
- (ii) Br, Cl, F;
- (iii) C_{1-4} alkyl which is unsubstituted or substituted by one or more substituents selected from F, C_{1-3} alkyl (which C_{1-3} alkyl group is unsubstituted

or substituted by one or more substituents selected from OH, =O, F, C₁₋₄ alkyl and C₁₋₄ alkoxy), OR^{12a} and NR^{12gR^{12h}});

(iv) OR^{15a}; or

(v) NR^{15gR^{15h}}; and/or

(b) R³, R⁴, R⁸ and R¹⁰, at each occurrence, independently represents H, Br, Cl, F, CN, C₁₋₄ alkyl (which C₁₋₄ alkyl group is unsubstituted or substituted by one or more substituents selected from F, C₁₋₃ alkyl (which C₁₋₃ alkyl group is unsubstituted or substituted by one or more substituents selected from OH, =O, halo, C₁₋₄ alkyl and C₁₋₄ alkoxy), OR^{12a} and NR^{12gR^{12h}}), OR^{15a}, NR^{15gR^{15h}}, nitro); and/or

(c) R^{11a} represents, C₁₋₅ alkyl which group is unsubstituted or substituted by one or more substituents selected from F, =O, C₁₋₃ alkyl (which C₁₋₃ alkyl group is unsubstituted or substituted by one or more substituents selected from OH, =O, F, C₁₋₄ alkyl and C₁₋₄ alkoxy), OR^{21a}, NR^{21gR^{21h}}, Het^b (which Het^b group is unsubstituted or substituted by one or more substituents selected from Cl, Br, F, C(O)OC₁₋₄ alkyl, C₁₋₅ alkyl, (which C₁₋₅ alkyl group is unsubstituted or substituted by one or more substituents selected from Het⁸, OH, =O, Cl, F, C₁₋₄ alkyl and C₁₋₄ alkoxy), OR^{23a}, NR^{23gR^{23h}}), or OR^{24a} (e.g. Het^b (which Het^b group is unsubstituted or substituted by one or more substituents selected from Cl, Br, F, C(O)OC₁₋₄ alkyl, C₁₋₄ alkyl, (which C₁₋₄ alkyl group is unsubstituted or substituted by one or more substituents selected from OH, =O, Cl, F, C₁₋₄ alkyl and C₁₋₄ alkoxy), OR^{23a}, NR^{23gR^{23h}})), or OR^{24a}); and/or

(d) R^{12a} to R^{12h}, R^{13a} to R^{13h}, R^{14a} to R^{14h}, R^{15a} to R^{15h}, R^{16a} to R^{16h}, R^{17a} to R^{17h}, R^{18a}, R^{18b}, R¹⁹, R²⁰, R^{21a} to R^{21h}, R^{22a} to R^{22h}, R^{23a} to R^{23h} and R^{24a} to R^{24e} independently represent, at each occurrence, H, C₁₋₄ alkyl (which C₁₋₄ alkyl group is unsubstituted or substituted by one or more substituents selected from Cl, F, =O, C(O)OC₁₋₄ alkyl, C₁₋₃ alkyl, C₅₋₆ cycloalkyl (which C₁₋₃ alkyl and C₅₋₆ cycloalkyl groups are optionally substituted by one or more substituents selected from OH, =O, Cl, F, C₁₋₄ alkyl and C₁₋₄ alkoxy), OR^{25a}, NR^{25gR^{25h}}, aryl and Het⁷), C₄₋₆ cycloalkyl (which C₄₋₆ cycloalkyl group is unsubstituted or substituted by one or more substituents selected from Cl, F, OH, =O, C₁₋₄ alkyl and C₁₋₄ alkoxy) or Het^c, or

R^{12-17c} and R^{12-17d}, R^{12-17g} and R^{12-17h}, R^{21-23c} and R^{21-23d}, R^{21-23g} and R^{21-23h}, R^{24b} and R^{24c}, and R^{24d} and R^{24e} may represent, together with the nitrogen atom to which they are attached, a 5- to 6-membered heterocyclic ring that may be aromatic, fully saturated or partially unsaturated and which may additionally contain one or more heteroatoms selected from O, S and N, which heterocyclic ring is unsubstituted or substituted by one or more substituents selected from halo, nitro, CN, C₁₋₃ alkyl (which C₁₋₃ alkyl group is

unsubstituted or substituted by one or more substituents selected from OH, =O, Cl, F, C₁₋₄ alkyl and C₁₋₄ alkoxy); and/or

(e) Het¹ to Het⁸ (e.g. Het¹ to Het⁷) and Het^a to Het^c independently represent a 5- to 8-membered heterocyclic group containing one or more heteroatoms selected from O, S and N, which heterocyclic groups may comprise one, two or three rings and may be substituted by one or more substituents selected from =O, Cl, Br, F, C₁₋₃ alkyl, which C₁₋₃ alkyl group is optionally substituted by one or more substituents selected from halo, -OR^{26a}, -NR^{26b}R^{26c}, -C(O)OR^{26d} and -C(O)NR^{26e}R^{26f}).

8. The compound according to Claim 1, wherein:

(a) R² represents Br, Cl or H;

(b) R³, R⁴, R⁸ and R¹⁰, at each occurrence, each represent H;

(c) R^{11a} represents,

(i) C₁₋₅ alkyl which group is unsubstituted or substituted by one or more substituents selected from Cl, F, =O, CN, C₁₋₃ alkyl (which C₁₋₃ alkyl group is unsubstituted or substituted by one or more substituents selected from OH, =O, Cl, F, C₁₋₄ alkyl and C₁₋₄ alkoxy), OR^{21a}, NR^{21g}R^{21h};

(ii) C₃₋₆ cycloalkyl which C₃₋₆ cycloalkyl group is unsubstituted or substituted by one or more substituents selected from Cl, F, OH, =O, C₁₋₄ alkyl and C₁₋₄ alkoxy;

(iii) Het^b (which Het^b group is unsubstituted or substituted by one or more substituents selected from Cl, Br, F, C(O)OC₁₋₄ alkyl, C₁₋₅ alkyl, (which C₁₋₅ alkyl group is unsubstituted or substituted by one or more substituents selected from Het⁸, OH, =O, Cl, F, C₁₋₄ alkyl and C₁₋₄ alkoxy), OR^{23a}, NR^{23g}R^{23h}) (e.g. Het^b (which Het^b group is unsubstituted or substituted by one or more substituents selected from Cl, Br, F, C(O)OC₁₋₄ alkyl, C₁₋₄ alkyl, (which C₁₋₄ alkyl group is unsubstituted or substituted by one or more substituents selected from OH, =O, Cl, F, C₁₋₄ alkyl and C₁₋₄ alkoxy), OR^{23a}, NR^{23g}R^{23h}));

(iv) OR^{24a}; or

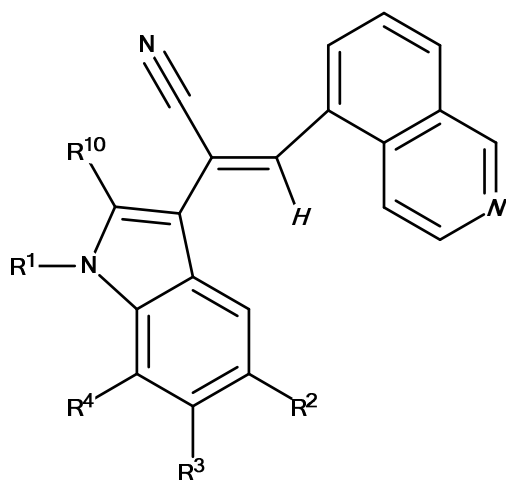
(v) NR^{24d}R^{24e},

(d) R^{12a} to R^{12h}, R^{13a} to R^{13h}, R^{14a} to R^{14h}, R^{15a} to R^{15h}, R^{16a} to R^{16h}, R^{17a} to R^{17h}, R^{18a}, R^{18b}, R¹⁹, R²⁰, R^{21a} to R^{21h}, R^{22a} to R^{22h}, R^{23a} to R^{23h} and R^{24a} to R^{24e} independently represent, at each occurrence, H, C₁₋₃ alkyl (which C₁₋₃ alkyl group is unsubstituted or substituted by one or more substituents selected from F, =O, C(O)OC₁₋₄ alkyl, C₁₋₃ alkyl (which C₁₋₃ alkyl group is unsubstituted or substituted by

one or more substituents selected from OH, =O, Cl, F, C₁₋₄ alkyl and C₁₋₄ alkoxy), OR^{25a}, NR^{25g}R^{25h}).

9. The compound according to Claim 1, wherein:

(A) L represents -C(CN)=C(H)-, X₁ represents N, X₂ to X₅ each represent CR⁸, X₆ and X₇ each represent CR⁹, Z represents CR⁴, Y represents CR¹⁰ and R⁵ represents H, and the compound of formula I may be represented as a compound of formula If,



If

provided that R⁴ is not Br or methylenepyrrolidine; and/or

provided that R² is not Cl, F, or OR^{15a} (where R^{15a} comprises more than one carbon atom) or NR^{15g}R^{15h}, optionally wherein:

(i) R³ represents H; and/or R¹⁰ represents H or CH₃; and/or R² represents H, Br or OCH₃; and/or R⁴ represents H or OCH₃; and/or

(ii) R¹ represents C(O)R^{11a} and R^{11a} represents:

(a) H;

(b) C₁₋₆ alkyl (which C₁₋₆ alkyl group is unsubstituted or substituted by one or more substituents selected from =O, C₁₋₆ alkyl (which C₁₋₆ alkyl group is unsubstituted or substituted by one or more substituents selected from OH, =O, C₁₋₄ alkyl and C₁₋₄ alkoxy), OR^{21a}, NR^{21g}R^{21h}, aryl, Cy³, and Het⁵);

(c) C₃₋₁₀ cycloalkyl (which C₃₋₁₀ cycloalkyl group is optionally substituted by one or more substituents selected from halo, OH, =O, C₁₋₆ alkyl and C₁₋₆ alkoxy);

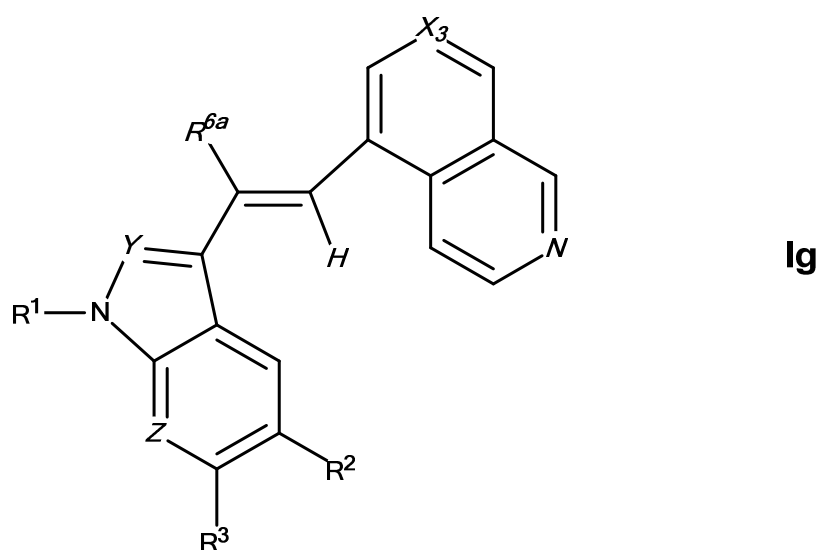
(d) Het^b (which Het^b group is unsubstituted or substituted by one or more substituents selected from halo, nitro, CN, C(O)OC₁₋₄ alkyl, C₁₋₆ alkyl (which C₁₋₆ alkyl group is optionally substituted by one or more substituents selected from Het⁸, or

more particularly, OH, =O, halo, C₁₋₄ alkyl and C₁₋₄ alkoxy), OR^{23a}, NR^{23g}R^{23h}, aryl and Het⁶),

(e) OR^{24a};

(f) NR^{24d}R^{24e}; and/or

(B) L represents -C(R^{6a})=C(H)-, X₁ represents N, X₂, X₄ and X₅ each represent CR⁸, X₃ represents N or CR⁸, X₆ and X₇ each represent CR⁹, and R⁵ represents H, and the compound of formula I may be represented as a compound of formula Ig,



provided that when R^{6a} represents CN:

R² is not F, Br or OCH₃; and/or

when Z is CR⁴, R⁴ is not OCH₃. optionally wherein:

R³ represents H or methylenepyrrolidinyl;

R² and R³ independently represent H, OR^{15a}, Cl or C₁₋₆ alkyl (which C₁₋₆ alkyl group is unsubstituted or substituted by one or more substituents selected from OR^{12a}, NR^{12g}R^{12h}, aryl and Het¹); and/or

R⁴, when present, represents H or Br.

10. The compound according to Claim 1, wherein the compound of formula I is selected from the list:

- (i) (Z)-2-(1*H*-indol-3-yl)-3-(5-isoquinolyl)prop-2-enenitrile;
- (ii) (Z)-3-(5-isoquinolyl)-2-(5-methoxy-1*H*-indol-3-yl)prop-2-enenitrile;

- (iii) 5-[(3a*S*,4*S*,6a*R*)-2-oxo-1,3,3a,4,6,6a-hexahydrothieno[3,4-*d*]imidazol-4-yl]-N-[3-[(*Z*)-1-cyano-2-(5-isoquinolyl)vinyl]-1*H*-indol-5-yl]pentanamide and/or 5-[(3a*R*,4*R*,6a*S*)-2-oxo-1,3,3a,4,6,6a-hexahydrothieno[3,4-*d*]imidazol-4-yl]-N-[3-[(*Z*)-1-cyano-2-(5-isoquinolyl)vinyl]-1*H*-indol-5-yl]pentanamide;
- (iv) (*Z*)-2-(5-chloro-1*H*-indol-3-yl)-3-(5-isoquinolyl)prop-2-enenitrile;
- (v) (*Z*)-2-(5-bromo-1*H*-indol-3-yl)-3-(5-isoquinolyl)prop-2-enenitrile ;
- (vi) (*Z*)-3-(5-isoquinolyl)-2-[1-[2-(4-methylpiperazin-1-yl)acetyl]indol-3-yl]prop-2-enenitrile;
- (vii) N-[3-[3-[(*Z*)-1-cyano-2-(5-isoquinolyl)vinyl]indol-1-yl]-3-oxo-propyl]acetamide;
- (viii) (*Z*)-2-[1-[5-[(3a*S*,4*S*,6a*R*)-2-oxo-1,3,3a,4,6,6a-hexahydrothieno[3,4-*d*]imidazol-4-yl]pentanoyl]indol-3-yl]-3-(5-isoquinolyl)prop-2-enenitrile and/or (*Z*)-2-[1-[5-[(3a*R*,4*R*,6a*S*)-2-oxo-1,3,3a,4,6,6a-hexahydrothieno[3,4-*d*]imidazol-4-yl]pentanoyl]indol-3-yl]-3-(5-isoquinolyl)prop-2-enenitrile;
- (ix) *tert*-butyl 4-[3-[(*Z*)-1-cyano-2-(5-isoquinolyl)vinyl]indole-1-carbonyl]piperidine-1-carboxylate;
- (x) (*Z*)-3-(5-isoquinolyl)-2-[1-(piperidine-4-carbonyl)indol-3-yl]prop-2-enenitrile;
- (xi) (*Z*)-3-(5-isoquinolyl)-2-[1-(1-methylpiperidine-4-carbonyl)indol-3-yl]prop-2-enenitrile;
- (xii) (*Z*)-3-(5-isoquinolyl)-2-[1-(1-(3-fluorophenyl)-piperidine-4-carbonyl)indol-3-yl]prop-2-enenitrile;
- (xiii) (*Z*)-3-(5-isoquinolyl)-2-[1-(1-oxazol-4-yl--piperidine-4-carbonyl)indol-3-yl]prop-2-enenitrile;
- (xiv) (*Z*)-3-(5-isoquinolyl)-2-[1-(1-(2-methoxyacetyl)-piperidine-4-carbonyl)indol-3-yl]prop-2-enenitrile;
- (xv) (*Z*)-2-(6-bromo-1*H*-indol-3-yl)-3-(5-isoquinolyl)prop-2-enenitrile;
- (xvi) (*Z*)-2-(6-chloro-1*H*-indol-3-yl)-3-(5-isoquinolyl)prop-2-enenitrile;
- (xvii) (*Z*)-3-(5-isoquinolyl)-2-(6-methoxy-1*H*-indol-3-yl)prop-2-enenitrile;
- (xviii) (*Z*)-2-(5,6-dimethoxy-1*H*-indol-3-yl)-3-(5-isoquinolyl)prop-2-enenitrile;
- (xix) (*Z*)-3-(5-isoquinolyl)-2-(7-methyl-1*H*-indol-3-yl)prop-2-enenitrile;
- (xx) 3-[(*Z*)-1-cyano-2-(5-isoquinolyl)vinyl]-N-methyl-1*H*-indole-7-carboxamide;
- (xxi) 5-chloro-3-[(*Z*)-1-cyano-2-(5-isoquinolyl)vinyl]-N-methyl-1*H*-indole-7-carboxamide;
- (xxii) (*Z*)-2-(5,7-dimethoxy-1*H*-indol-3-yl)-3-(5-isoquinolyl)prop-2-enenitrile;
- (xxiii) (*Z*)-3-(5-isoquinolyl)-2-(7-methoxy-1*H*-indol-3-yl)prop-2-enenitrile;
- (xxiv) N-[3-[(*Z*)-1-cyano-2-(5-isoquinolyl)vinyl]-1*H*-indol-7-yl]acetamide;
- (xxv) (*Z*)-2-(7-chloro-1*H*-indol-3-yl)-3-(5-isoquinolyl)prop-2-enenitrile;
- (xxvi) (*Z*)-2-(7-fluoro-1*H*-indol-3-yl)-3-(5-isoquinolyl)prop-2-enenitrile;
- (xxvii) (*Z*)-2-[7-(2-fluorophenyl)-1*H*-indol-3-yl]-3-(5-isoquinolyl)prop-2-enenitrile;
- (xxviii) (*Z*)-2-(1*H*-indol-3-yl)-3-(5-isoquinolyl)but-2-enenitrile;
- (xxix) (*Z*)-3-(1*H*-indol-3-yl)-2-(5-isoquinolyl)prop-2-enenitrile;

- (xxx) N-(1*H*-indol-3-yl)isoquinoline-5-carboxamide;
- (xxxi) *tert*-butyl N-[3-[3-[(*Z*)-1-cyano-2-(5-isoquinolyl)vinyl]indol-1-yl]-3-oxopropyl]carbamate;
- (xxxii) (*Z*)-2-[1-(3-amino-1-oxo-propyl)indol-3-yl]-3-(5-isoquinolyl)prop-2-enenitrile;
- (xxxiii) *tert*-butyl N-[5-[3-[(*Z*)-1-cyano-2-(5-isoquinolyl)vinyl]indol-1-yl]-5-oxopentyl]carbamate;
- (xxxiv) (*Z*)-2-[1-(5-amino-1-oxo-pentyl)indol-3-yl]-3-(5-isoquinolyl)prop-2-enenitrile;
- (xxxv) *tert*-butyl N-[6-[3-[(*Z*)-1-cyano-2-(5-isoquinolyl)vinyl]indol-1-yl]-6-oxohexyl]carbamate;
- (xxxvi) (*Z*)-2-(1-(6-aminohexanoyl)-1*H*-indol-3-yl)-3-(isoquinolin-5-yl)acrylonitrile;
- (xxxvii) (*Z*)-2-(1*H*-indazol-3-yl)-3-(5-isoquinolyl)prop-2-enenitrile;
- (xxxviii) (*Z*)-3-(5-isoquinolyl)-2-(4-methyl-1*H*-indol-3-yl)prop-2-enenitrile;
- (xxxix) (*Z*)-3-(5-isoquinolyl)-2-(4-methoxy-1*H*-indol-3-yl)prop-2-enenitrile;
- (xl) (*Z*)-2-(4,5-dimethoxy-1*H*-indol-3-yl)-3-(5-isoquinolyl)prop-2-enenitrile;
- (xli) (*Z*)-2-(4-chloro-1*H*-indol-3-yl)-3-(5-isoquinolyl)prop-2-enenitrile;
- (xlii) 4-chloro-3-[(*Z*)-1-cyano-2-(5-isoquinolyl)vinyl]-1*H*-indole-5-carboxamide;
- (xliii) (*Z*)-2-(1*H*-indol-3-yl)-3-(5-quinolyl)prop-2-enenitrile;
- (xliv) 5-((*E*)-2-(1*H*-indol-3-yl)vinyl)isoquinoline;
- (xlv) 4-((*E*)-2-(1*H*-indol-3-yl)vinyl)-2,7-naphthyridine;
- (xlv) 5-((*E*)-2-(1*H*-pyrrolo[2,3-*b*]pyridin-3-yl)vinyl)isoquinoline;
- (xlvii) 4-((*E*)-2-(1*H*-pyrrolo[2,3-*b*]pyridin-3-yl)vinyl)-2,7-naphthyridine;
- (xlviii) [3-[(*E*)-2-(5-isoquinolyl)vinyl]-1*H*-indol-5-yl]azinic acid;
- (xlix) (*Z*)-2-(1*H*-indol-3-yl)-3-(2,7-naphthyridin-4-yl)prop-2-enenitrile;
- (l) (*Z*)-3-(5-isoquinolyl)-2-[5-(3-pyrrolidin-1-ylpropoxy)-1*H*-indol-3-yl]prop-2-enenitrile;
- (li) (*Z*)-3-(5-isoquinolyl)-2-[5-(2-methoxyethoxy)-1*H*-indol-3-yl]prop-2-enenitrile;
- (lii) (*Z*)-2-(6-chloro-1*H*-indol-3-yl)-3-(5-isoquinolyl)prop-2-enenitrile;
- (liii) (*Z*)-2-(7-bromo-1*H*-indol-3-yl)-3-(5-isoquinolyl)prop-2-enenitrile;
- (liv) *tert*-butyl N-[3-[3-[(*Z*)-1-cyano-2-(5-isoquinolyl)vinyl]indol-1-yl]-3-oxopropyl]carbamate;
- (lv) (*Z*)-2-[1-(3-aminopropanoyl)indol-3-yl]-3-(5-isoquinolyl)prop-2-enenitrile;
- (lvi) 5-[(3*aS*,4*S*,6*aR*)-2-oxo-1,3,3*a*,4,6,6*a*-hexahydrothieno[3,4-*d*]imidazol-4-yl]-N-[3-[3-[(*Z*)-1-cyano-2-(5-isoquinolyl)vinyl]indol-1-yl]-3-oxo-propyl]pentanamide and/or 5-[(3*aR*,4*R*,6*aS*)-2-oxo-1,3,3*a*,4,6,6*a*-hexahydrothieno[3,4-*d*]imidazol-4-yl]-N-[3-[3-[(*Z*)-1-cyano-2-(5-isoquinolyl)vinyl]indol-1-yl]-3-oxo-propyl]pentanamide;
- (lvii) (*Z*)-2-(5-(2-(1,3-dioxolan-2-yl)ethoxy)-1*H*-indol-3-yl)-3-(isoquinolin-5-yl)acrylonitrile;
- (lviii) (*Z*)-3-(isoquinolin-5-yl)-2-(1-(1-(5-((3*aS*,4*S*,6*aR*)-2-oxohexahydro-1*H*-thieno[3,4-*d*]imidazol-4-yl)pentanoyl)piperidine-4-carbonyl)-1*H*-indol-3-yl)acrylonitrile;

- (lix) (Z)-2-(1-(2-(2-methoxyethoxy)acetyl)-1*H*-indol-3-yl)-3-(isoquinolin-5-yl)acrylonitrile;
- (lx) (Z)-3-(isoquinolin-5-yl)-2-(6-((pyrrolidin-1-yl)methyl)-1*H*-indol-3-yl)acrylonitrile;
- (lxi) (Z)-3-(isoquinolin-5-yl)-2-(5-((pyrrolidin-1-yl)methyl)-1*H*-indol-3-yl)acrylonitrile;
- (lxii) (Z)-3-(isoquinolin-5-yl)-2-(7-((pyrrolidin-1-yl)methyl)-1*H*-indol-3-yl)acrylonitrile; and
- (lxiii) (Z)-2-(1*H*-indazol-3-yl)-3-(isoquinolin-5-yl)acrylonitrile.

11. The compound according to Claim 10, wherein the compound of formula I is selected from the list:

- (i) (Z)-2-(1*H*-indol-3-yl)-3-(5-isoquinolyl)prop-2-enenitrile;
- (ii) (Z)-3-(5-isoquinolyl)-2-(5-methoxy-1*H*-indol-3-yl)prop-2-enenitrile;
- (iii) 5-[(3*aS*,4*S*,6*aR*)-2-oxo-1,3,3*a*,4,6,6*a*-hexahydrothieno[3,4-*d*]imidazol-4-yl]-N-[3-[(Z)-1-cyano-2-(5-isoquinolyl)vinyl]-1*H*-indol-5-yl]pentanamide and/or 5-[(3*aR*,4*R*,6*aS*)-2-oxo-1,3,3*a*,4,6,6*a*-hexahydrothieno[3,4-*d*]imidazol-4-yl]-N-[3-[(Z)-1-cyano-2-(5-isoquinolyl)vinyl]-1*H*-indol-5-yl]pentanamide;
- (iv) (Z)-2-(5-chloro-1*H*-indol-3-yl)-3-(5-isoquinolyl)prop-2-enenitrile;
- (v) (Z)-2-(5-bromo-1*H*-indol-3-yl)-3-(5-isoquinolyl)prop-2-enenitrile;
- (vi) (Z)-3-(5-isoquinolyl)-2-[1-[2-(4-methylpiperazin-1-yl)acetyl]indol-3-yl]prop-2-enenitrile;
- (vii) N-[3-[3-[(Z)-1-cyano-2-(5-isoquinolyl)vinyl]indol-1-yl]-3-oxo-propyl]acetamide;
- (viii) *tert*-butyl 4-[3-[(Z)-1-cyano-2-(5-isoquinolyl)vinyl]indole-1-carbonyl]piperidine-1-carboxylate;
- (ix) (Z)-3-(5-isoquinolyl)-2-[1-(piperidine-4-carbonyl)indol-3-yl]prop-2-enenitrile;
- (x) (Z)-3-(isoquinolin-5-yl)-2-(7-methoxy-1*H*-indol-3-yl)acrylonitrile;
- (xi) (Z)-3-(isoquinolin-5-yl)-2-(6-methoxy-1*H*-indol-3-yl)acrylonitrile;
- (xii) (Z)-*tert*-butyl 3-(3-(1-cyano-2-(isoquinolin-5-yl)vinyl)-1*H*-indol-1-yl)-3-oxopropyl)carbamate;
- (xiii) N-(3-(3-((Z)-1-cyano-2-(isoquinolin-5-yl)vinyl)-1*H*-indol-1-yl)-3-oxopropyl)-5-((3*aS*,4*S*,6*aR*)-2-oxohexahydro-1*H*-thieno[3,4-*d*]imidazol-4-yl)pentanamide;
- (xiv) N-(3-((Z)-1-cyano-2-(isoquinolin-5-yl)vinyl)-1*H*-indol-5-yl)acetamide
- (xv) (Z)-2-(6-bromo-1*H*-indol-3-yl)-3-(5-isoquinolyl)prop-2-enenitrile;
- (xvi) (Z)-2-(7-bromo-1*H*-indol-3-yl)-3-(5-isoquinolyl)prop-2-enenitrile;
- (xvii) (Z)-2-[1-(3-aminopropanoyl)indol-3-yl]-3-(5-isoquinolyl)prop-2-enenitrile;
- (xviii) (Z)-3-(isoquinolin-5-yl)-2-(1-(1-(5-((3*aS*,4*S*,6*aR*)-2-oxohexahydro-1*H*-thieno[3,4-*d*]imidazol-4-yl)pentanoyl)piperidine-4-carbonyl)-1*H*-indol-3-yl)acrylonitrile; and
- (xix) (Z)-2-(1-(2-(2-methoxyethoxy)acetyl)-1*H*-indol-3-yl)-3-(isoquinolin-5-yl)acrylonitrile.

12. The compound according to Claim 10, wherein the compound of formula I is (Z)-2-(1*H*-indol-3-yl)-3-(5-quinolyl)prop-2-enenitrile, (Z)-*tert*-butyl 4-(3-(1-cyano-2-(isoquinolin-5-

yl)vinyl)-1*H*-indole-1-carbonyl)piperidine-1-carboxylate and (Z)-2-[1-[5-[(3*aR*,4*R*,6*aS*)-2-oxo-1,3,3*a*,4,6,6*a*-hexahydrothieno[3,4-*d*]imidazol-4-yl]pentanoyl]indol-3-yl]-3-(5-isoquinolyl)prop-2-enenitrile.

13. The compound according to Claim 10, wherein the compound of formula I is selected from the list:

- (a) 5-((*E*)-2-(1*H*-indol-3-yl)vinyl)isoquinoline;
- (b) 4-((*E*)-2-(1*H*-indol-3-yl)vinyl)-2,7-naphthyridine;
- (c) 5-((*E*)-2-(1*H*-pyrrolo[2,3-*b*]pyridin-3-yl)vinyl)isoquinoline;
- (d) 4-((*E*)-2-(1*H*-pyrrolo[2,3-*b*]pyridin-3-yl)vinyl)-2,7-naphthyridine;
- (e) (Z)-2-(1*H*-indol-3-yl)-3-(2,7-naphthyridin-4-yl)prop-2-enenitrile;
- (f) (Z)-3-(5-isoquinolyl)-2-[5-(3-pyrrolidin-1-ylpropoxy)-1*H*-indol-3-yl]prop-2-enenitrile;
- (g) (Z)-3-(5-isoquinolyl)-2-[5-(2-methoxyethoxy)-1*H*-indol-3-yl]prop-2-enenitrile;
- (h) (Z)-2-(5-(2-(1,3-dioxolan-2-yl)ethoxy)-1*H*-indol-3-yl)-3-(isoquinolin-5-yl)acrylonitrile;
- (i) (Z)-3-(isoquinolin-5-yl)-2-(6-((pyrrolidin-1-yl)methyl)-1*H*-indol-3-yl)acrylonitrile;
- (j) (Z)-3-(isoquinolin-5-yl)-2-(5-((pyrrolidin-1-yl)methyl)-1*H*-indol-3-yl)acrylonitrile;
- (k) (Z)-3-(isoquinolin-5-yl)-2-(7-((pyrrolidin-1-yl)methyl)-1*H*-indol-3-yl)acrylonitrile; and
- (l) (Z)-2-(1*H*-indazol-3-yl)-3-(isoquinolin-5-yl)acrylonitrile.

14. A pharmaceutical formulation including a compound of formula I, as defined in Claim 1, in admixture with a pharmaceutically-acceptable adjuvant, diluent or carrier.

15. A compound of formula I, as defined in Claim 1, for use in medicine.

16. Use of a compound of formula I, as defined in Claim 1, for the preparation of a medicament for the treatment of cancer.

17. Use of:

(a) a compound of formula I selected from:

- (Z)-2-(1*H*-indol-3-yl)-3-(5-quinolyl)prop-2-enenitrile,
- (Z)-*tert*-butyl 4-(3-(1-cyano-2-(isoquinolin-5-yl)vinyl)-1*H*-indole-1-carbonyl)piperidine-1-carboxylate, and
- (Z)-2-[1-[5-[(3*aR*,4*R*,6*aS*)-2-oxo-1,3,3*a*,4,6,6*a*-hexahydrothieno[3,4-*d*]imidazol-4-yl]pentanoyl]indol-3-yl]-3-(5-isoquinolyl)prop-2-enenitrile, and

(b) an anti-autophagy and/or chemoprotective agent,

for the preparation of a medicament for the treatment of cancer, wherein the compound of formula I is administered sequentially, simultaneously or concomitantly with the other therapeutic agent;

or

use of a compound of formula I selected from:

- (Z)-2-(1*H*-indol-3-yl)-3-(5-quinolyl)prop-2-enenitrile;
- (Z)-*tert*-butyl 4-(3-(1-cyano-2-(isoquinolin-5-yl)vinyl)-1*H*-indole-1-carbonyl)piperidine-1-carboxylate; and
- (Z)-2-[1-[5-[(3*aR*,4*R*,6*aS*)-2-oxo-1,3,3*a*,4,6,6*a*-hexahydrothieno[3,4-*d*]imidazol-4-yl]pentanoyl]indol-3-yl]-3-(5-isoquinolyl)prop-2-enenitrile,

for the preparation of a medicament for the treatment of cancer, wherein the medicament is administered in combination with an anti-autophagy and/or chemoprotective agent.

18. A combination product comprising:

(a)

(A) a compound of formula I selected from:

- (Z)-2-(1*H*-indol-3-yl)-3-(5-quinolyl)prop-2-enenitrile,
- (Z)-*tert*-butyl 4-(3-(1-cyano-2-(isoquinolin-5-yl)vinyl)-1*H*-indole-1-carbonyl)piperidine-1-carboxylate, and
- (Z)-2-[1-[5-[(3*aR*,4*R*,6*aS*)-2-oxo-1,3,3*a*,4,6,6*a*-hexahydrothieno[3,4-*d*]imidazol-4-yl]pentanoyl]indol-3-yl]-3-(5-isoquinolyl)prop-2-enenitrile, and

(B) an anti-autophagy and/or chemoprotective agent,

wherein each of components (A) and (B) is formulated in admixture with a pharmaceutically-acceptable adjuvant, diluent or carrier; or

(b)

(I) a compound of formula I selected from:

- 5-((*E*)-2-(1*H*-indol-3-yl)vinyl)isoquinoline;
- 4-((*E*)-2-(1*H*-indol-3-yl)vinyl)-2,7-naphthyridine;
- 5-((*E*)-2-(1*H*-pyrrolo[2,3-*b*]pyridin-3-yl)vinyl)isoquinoline;
- 4-((*E*)-2-(1*H*-pyrrolo[2,3-*b*]pyridin-3-yl)vinyl)-2,7-naphthyridine;
- (Z)-2-(1*H*-indol-3-yl)-3-(2,7-naphthyridin-4-yl)prop-2-enenitrile;
- (Z)-3-(5-isoquinolyl)-2-[5-(3-pyrrolidin-1-ylpropoxy)-1*H*-indol-3-yl]prop-2-enenitrile;
- (Z)-3-(5-isoquinolyl)-2-[5-(2-methoxyethoxy)-1*H*-indol-3-yl]prop-2-enenitrile;

(Z)-2-(5-(2-(1,3-dioxolan-2-yl)ethoxy)-1*H*-indol-3-yl)-3-(isoquinolin-5-yl)acrylonitrile;

(Z)-3-(isoquinolin-5-yl)-2-(6-((pyrrolidin-1-yl)methyl)-1*H*-indol-3-yl)acrylonitrile;

(Z)-3-(isoquinolin-5-yl)-2-(5-((pyrrolidin-1-yl)methyl)-1*H*-indol-3-yl)acrylonitrile;

(Z)-3-(isoquinolin-5-yl)-2-(7-((pyrrolidin-1-yl)methyl)-1*H*-indol-3-yl)acrylonitrile;

and

(Z)-2-(1*H*-indazol-3-yl)-3-(isoquinolin-5-yl)acrylonitrile,

and

(II) an antimitotic agent,

wherein each of components (I) and (II) is formulated in admixture with a pharmaceutically-acceptable adjuvant, diluent or carrier.

19. The use of a combination product as defined in Claim 18(a) or Claim 18 (b) for the manufacture of a medicament for the treatment of cancer.

20. Use of:

(a) a compound of formula I selected from:

5-((*E*)-2-(1*H*-indol-3-yl)vinyl)isoquinoline;

4-((*E*)-2-(1*H*-indol-3-yl)vinyl)-2,7-naphthyridine;

5-((*E*)-2-(1*H*-pyrrolo[2,3-*b*]pyridin-3-yl)vinyl)isoquinoline;

4-((*E*)-2-(1*H*-pyrrolo[2,3-*b*]pyridin-3-yl)vinyl)-2,7-naphthyridine;

(Z)-2-(1*H*-indol-3-yl)-3-(2,7-naphthyridin-4-yl)prop-2-enenitrile;

(Z)-3-(5-isoquinolyl)-2-[5-(3-pyrrolidin-1-ylpropoxy)-1*H*-indol-3-yl]prop-2-enenitrile;

(Z)-3-(5-isoquinolyl)-2-[5-(2-methoxyethoxy)-1*H*-indol-3-yl]prop-2-enenitrile;

(Z)-2-(5-(2-(1,3-dioxolan-2-yl)ethoxy)-1*H*-indol-3-yl)-3-(isoquinolin-5-yl)acrylonitrile;

(Z)-3-(isoquinolin-5-yl)-2-(6-((pyrrolidin-1-yl)methyl)-1*H*-indol-3-yl)acrylonitrile;

(Z)-3-(isoquinolin-5-yl)-2-(5-((pyrrolidin-1-yl)methyl)-1*H*-indol-3-yl)acrylonitrile;

(Z)-3-(isoquinolin-5-yl)-2-(7-((pyrrolidin-1-yl)methyl)-1*H*-indol-3-yl)acrylonitrile; and

(Z)-2-(1*H*-indazol-3-yl)-3-(isoquinolin-5-yl)acrylonitrile, and

(b) an antimitotic agent,

for the preparation of a medicament for the treatment of cancer, wherein the compound of formula I is administered sequentially, simultaneously or concomitantly with the other therapeutic agent;

or

use of a compound of formula I selected from

5-((*E*)-2-(1*H*-indol-3-yl)vinyl)isoquinoline;
 4-((*E*)-2-(1*H*-indol-3-yl)vinyl)-2,7-naphthyridine;
 5-((*E*)-2-(1*H*-pyrrolo[2,3-*b*]pyridin-3-yl)vinyl)isoquinoline;
 4-((*E*)-2-(1*H*-pyrrolo[2,3-*b*]pyridin-3-yl)vinyl)-2,7-naphthyridine;
 (Z)-2-(1*H*-indol-3-yl)-3-(2,7-naphthyridin-4-yl)prop-2-enenitrile;
 (Z)-3-(5-isoquinolyl)-2-[5-(3-pyrrolidin-1-ylpropoxy)-1*H*-indol-3-yl]prop-2-enenitrile;
 (Z)-3-(5-isoquinolyl)-2-[5-(2-methoxyethoxy)-1*H*-indol-3-yl]prop-2-enenitrile;
 (Z)-2-(5-(2-(1,3-dioxolan-2-yl)ethoxy)-1*H*-indol-3-yl)-3-(isoquinolin-5-yl)acrylonitrile;
 (Z)-3-(isoquinolin-5-yl)-2-(6-((pyrrolidin-1-yl)methyl)-1*H*-indol-3-yl)acrylonitrile;
 (Z)-3-(isoquinolin-5-yl)-2-(5-((pyrrolidin-1-yl)methyl)-1*H*-indol-3-yl)acrylonitrile;
 (Z)-3-(isoquinolin-5-yl)-2-(7-((pyrrolidin-1-yl)methyl)-1*H*-indol-3-yl)acrylonitrile; and
 (Z)-2-(1*H*-indazol-3-yl)-3-(isoquinolin-5-yl)acrylonitrile,

for the preparation of a medicament for the treatment of cancer, wherein the medicament is administered in combination with an antimitotic agent.