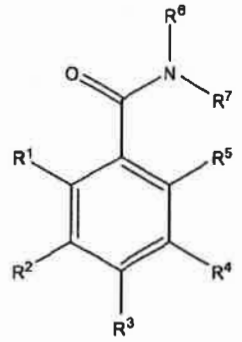
CLAIMS

1. A compound which is (a) a phenylamide derivative of formula (I) or a tautomer thereof, or (b) a pharmaceutically acceptable salt, N-oxide, hydrate, prodrug or solvate thereof:



(I)

wherein:

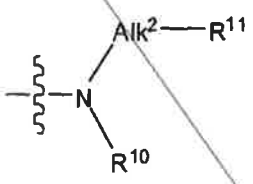
- R^1 is hydrogen or hydroxy;
- R^2, R^3, R^4 and R^5 are the same or different and represent hydrogen or halogen atoms or C_{1-6} alkyl, C_{2-6} alkenyl, C_{2-6} alkynyl, C_{1-6} alkoxy, hydroxy, cyano, nitro or -NR′R′′ groups wherein R′ and R′′ are the same or different and represent hydrogen or unsubstituted C_{1-4} alkyl, and with the proviso that no more than two of R^2, R^3, R^4 and R^5 are cyano or nitro;
- either:

(iii) R^6 is selected from C_{1-4} alkyl and R^7 represents -CR^8R^9-A wherein R^8 and R^9 are the same or different and represent a hydrogen or halogen atom or a C_{1-4} alkyl, C_{2-4} alkenyl, C_{1-4} alkoxy, hydroxy or -NR′R′′ group where R′ and R′′ are the same or different and represent hydrogen or unsubstituted C_{1-4} alkyl, and A represents a phenyl ring or a 5- or 6-membered heteroaryl group and is substituted with a group W; or

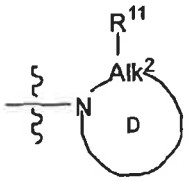
(iv) R^6 and R^7, together with the nitrogen atom to which they are bonded, form a 5- or 6-membered heterocyclyl group which is either (a) unfused, or (b) fused to a phenyl ring or a 5- to 6-

membered heteroaryl group, and wherein either the heterocyclyl group or, when fused, the heterocyclyl group or the phenyl ring or heteroaryl group to which it is fused, is substituted with a group W;

- W represents a group -Alk^1-R;
- Alk^1 represents a bond, a C_{1-4} alkylene group or a group -(C_{1-4} alkylene)-NR´-(C_{1-4} alkylene)- wherein R´ represents hydrogen or C_{1-4} alkyl;
- R represents a group of formula (X) or (Y):



(X)



(Y)

- R^{10}, where present, represents a hydrogen atom or a C_{1-4} alkyl group;
- Alk^2 represents a group of formula -$C(R^{12})(R^{13})$- when R is of formula (X) or -$C(R^{12})$- when R is of formula (Y), wherein R^{12} and R^{13} are the same or different and represent hydrogen or the α-substituents of an α-substituted or α,α-disubstituted glycine or glycine ester compound;
- ring D, where present, is a 5- to 6-membered heterocyclyl group containing Alk^2 and wherein R^{11} is linked to ring D via Alk^2, and ring D is optionally fused to a second ring comprising a phenyl, 5- to 6-membered heteroaryl, C_{3-7} carbocylyl or 5- to 6-membered heterocyclyl; and
- R^{11} is a group -COOH or an ester group which is hydrolysable by one or more intracellular carboxylesterase enzymes to a -COOH group;

and wherein, unless otherwise stated:

- the alkyl, alkenyl and alkynyl groups and moieties in R^2, R^3, R^4, R^5, R^6, R^8, R^9, Alk^1, R^{12} and R^{13} are unsubstituted or substituted with 1, 2 or 3 unsubstituted substituents which are the same or different and are selected from halogen atoms and C_{1-4} alkyl, C_{2-4} alkenyl, C_{1-4} alkoxy, C_{2-4} alkenyloxy, C_{1-4} haloalkyl, C_{2-4} haloalkenyl, C_{1-4} haloalkoxy, C_{2-4}

haloalkenyloxy, hydroxyl, -SR′, cyano, nitro, C_{1-4} hydroxyalkyl and -NR′R′′ groups where R′ and R′′ are the same or different and represent hydrogen or unsubstituted C_{1-2} alkyl; and

the aryl, heteroaryl, carbocyclyl and heterocyclyl groups and moieties in R^6 and R^7 are unsubstituted or substituted by 1, 2, 3 or 4 unsubstituted substituents selected from halogen atoms, and cyano, nitro, C_{1-4} alkyl, C_{1-4} alkoxy, C_{2-4} alkenyl, C_{2-4} alkenyloxy, C_{1-4} haloalkyl, C_{2-4} haloalkenyl, C_{1-4} haloalkoxy, C_{2-4} haloalkenyloxy, hydroxyl, C_{1-4} hydroxyalkyl, -SR′ and -NR′R′′ groups wherein each R′ and R′′ is the same or different and represents hydrogen or unsubstituted C_{1-4} alkyl, or from substituents of formula -COOH, $-COOR^A$, $-COR^A$, $-SO_2R^A$, $-CONH_2$, $-SO_2NH_2$, $-CONHR^A$, $-SO_2NHR^A$, $-CONR^AR^B$, $-SO_2NR^AR^B$, $-OCONH_2$, $-OCONHR^A$, $-OCONR^AR^B$, $-NHCOR^A$, $-NR^BCOR^A$, $-NHCOOR^A$, $-NR^BCOOR^A$, $-NR^BCOOH$, -NHCOOH, $-NHSO_2R^A$, $-NR^BSO_2R^A$, $-NHSO_2OR^A$, $-NR^BSO_2OH$, $-NHSO_2H$, $-NR^BSO_2OR^A$, $-NHCONH_2$, $-NR^ACONH_2$, $-NHCONHR^B$, $-NR^ACONHR^B$, $-NHCONR^AR^B$ or $-NR^ACONR^AR^B$ wherein R^A and R^B are the same or different and represent unsubstituted C_{1-6} alkyl, C_{3-6} cycloalkyl, non-fused phenyl or a non-fused 5- to 6-membered heteroaryl, or R^A and R^B when attached to the same nitrogen atom form a non-fused 5- or 6-membered heterocyclyl group.

2. A compound as claimed in claim 1 wherein R^1 is hydroxy.

3. A compound as claimed in claim 1 or claim 2 wherein R^2, R^3, R^4 and R^5 are the same or different and represent hydrogen or halogen atoms or hydroxy, unsubstituted C_{1-4} alkyl or unsubstituted C_{1-4} alkoxy groups.

4. A compound as claimed in any one of the preceding claims wherein either:

(i) R^6 represents $-CH_3$, R^7 represents $-CR^8R^9$-A wherein R^8 and R^9 are the same or different and represent a hydrogen or halogen atom or an

unsubstituted C_{1-4} alkyl or C_{1-4} alkoxy group, and A represents a phenyl ring substituted with a group W; or

(ii) R^6 and R^7, together with the nitrogen atom to which they are bonded, form a pyrrolidinyl, piperidinyl or isoindolinyl group which is substituted with a group W and is optionally further substituted with 1 or 2 groups which are the same or different and are selected from halogen atoms and unsubstituted C_{1-4} alkyl, C_{1-4} alkoxy, hydroxyl, C_{1-4} haloalkyl, C_{1-4} haloalkoxy, C_{1-4} hydroxyalkyl, cyano, nitro, -SR′ and -NR′R′′ groups where R′ and R′′ are the same or different and represent hydrogen or unsubstituted C_{1-2} alkyl.

5. A compound as claimed in any one of the preceding claims wherein Alk^1 represents a bond, an unsubstituted C_{1-4} alkylene group, or an unsubstituted -(C_{1-2} alkylene)-NH-(C_{1-4} alkylene)- group.

6. A compound as claimed in any one of the preceding claims wherein either:

(iii) R^{12} and R^{13} are the same or different and represent hydrogen, C_{1-6} alkyl, C_{3-7} carbocyclyl, C_{6-10} aryl, -(C_{1-4} alkyl)-(C_{6-10} aryl), or -(C_{1-4} alkyl)-(C_{3-7} carbocyclyl); or

(iv) R^{12} and R^{13}, together with the carbon atom to which they are bonded, form a C_{3-7} carbocyclyl group,

wherein the alkyl groups and moieties are unsubstituted or substituted with 1 or 2 substituents selected from unsubstituted C_{1-4} alkyl, C_{1-4} alkoxy, hydroxy and -NR′R′′ groups where R′ and R′′ are the same or different and represent hydrogen or unsubstituted C_{1-2} alkyl, and wherein the aryl and carbocyclyl groups and moieties are unsubstituted or substituted with 1 or 2 substituents selected from halogen atoms and unsubstituted C_{1-4} alkyl, C_{1-4} alkoxy, hydroxyl, C_{1-4} haloalkyl, C_{1-4} haloalkoxy, C_{1-4} hydroxyalkyl, cyano, nitro, -SR′ and -NR′R′′ groups where R′ and R′′ are the same or different and represent hydrogen or unsubstituted C_{1-2} alkyl.

7. A compound as claimed in claim 6 wherein either:

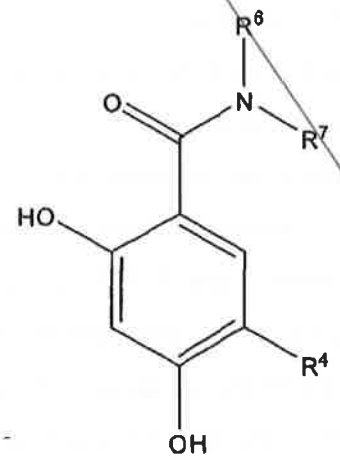
(i) R^{12} and R^{13} are the same or different and represent a hydrogen atom or an unsubstituted group selected from C_{1-4} alkyl, C_{3-7} carbocyclyl, phenyl, -hydroxy-(C_{1-4})alkyl, -(C_{1-4})alkoxy-(C_{1-4})alkyl, -(C_{1-2})alkyl-phenyl or -(C_{1-2})alkyl-(C_{3-7})carbocyclyl; or

(ii) R^{12} and R^{13}, together with the carbon atom to which they are bonded, form an unsubstituted C_{3-7} carbocyclyl group.

8. A compound as claimed in any one of the preceding claims wherein R represents a group of formula (X) and R^{10} represents a hydrogen atom.

9. A compound as claimed in any one of the preceding claims wherein R^{11} is selected from -COOH and -$COOR^{20}$ wherein R^{20} represents unsubstituted C_{1-4} alkyl or C_{3-7} carbocyclyl.

10. A compound as claimed in any one of the preceding claims which is (a) a phenylamide derivative of formula (IA) or a tautomer thereof, or (b) a pharmaceutically acceptable salt, N-oxide, hydrate, prodrug or solvate thereof:



(IA)

wherein:

- R^4 represents an unsubstituted C_{1-4} alkyl group;
- either:

- R^6 represents $-CH_3$, R^7 represents $-CR^8R^9$-A wherein R^8 and R^9 are the same or different and represent a hydrogen or halogen atom or an unsubstituted C_{1-4} alkyl or C_{1-4} alkoxy group, and A represents a phenyl ring substituted with a group W; or
- R^6 and R^7, together with the nitrogen atom to which they are bonded, form a pyrrolidine, piperidine or isoindoline group which is substituted with a group W and which is optionally further substituted with 1 or 2 groups which are the same or different and are selected from halogen atoms and unsubstituted C_{1-4} alkyl, C_{1-4} alkoxy, hydroxyl, C_{1-4} haloalkyl, C_{1-4} haloalkoxy, C_{1-4} hydroxyalkyl, cyano, nitro, -SR′ and -NR′R′′ groups where R′ and R′′ are the same or different and represent hydrogen or unsubstituted C_{1-2} alkyl;

- Alk^1 represents a bond, an unsubstituted C_{1-4} alkylene group, or an unsubstituted -(C_{1-2} alkylene)-NH-(C_{1-4} alkylene)- group;
- R represents a group of formula (X) wherein R^{10} represents hydrogen;
- Alk^2 represents a group of formula $-C(R^{12})(R^{13})$- and either:
  - R^{12} and R^{13} are the same or different and represent hydrogen, C_{1-6} alkyl, C_{3-7} carbocyclyl, C_{6-10} aryl, -(C_{1-4} alkyl)-(C_{6-10} aryl), or -(C_{1-4} alkyl)-(C_{3-7} carbocyclyl); or
  - R^{12} and R^{13}, together with the carbon atom to which they are bonded, form a C_{3-7} carbocyclyl group,

  wherein the alkyl groups and moieties in R^{12} and R^{13} are unsubstituted or substituted with 1 or 2 substituents selected from unsubstituted C_{1-4} alkyl, C_{1-4} alkoxy, hydroxy and -NR′R′′ groups where R′ and R′′ are the same or different and represent hydrogen or unsubstituted C_{1-2} alkyl, and wherein the aryl and carbocyclyl groups and moieties in R^{12} and R^{13} are unsubstituted or substituted with 1 or 2 substituents selected from halogen atoms and unsubstituted C_{1-4} alkyl, C_{1-4} alkoxy, hydroxyl, C_{1-4} haloalkyl, C_{1-4} haloalkoxy, C_{1-4} hydroxyalkyl, cyano, nitro, -SR′ and -NR′R′′ groups where R′ and R′′ are the same or different and represent hydrogen or unsubstituted C_{1-2} alkyl; and

- R^{11} is selected from -COOH and -$COOR^{20}$ wherein R^{20} represents unsubstituted C_{1-4} alkyl or C_{3-7} carbocyclyl.

11. A compound as claimed in claim 10 wherein R^4 represents isopropyl.

12. A compound as claimed in claim 10 or claim 11 wherein either:
- R^6 represents -CH_3, R^7 represents -CH_2-phenyl wherein the phenyl ring is substituted with a single group W; or
- R^6 and R^7, together with the nitrogen atom to which they are bonded, form a pyrrolidinyl, piperidinyl or isoindolinyl group which is substituted with a single group W.

13. A compound as claimed in any one of claims 10 to 12 wherein one of R^{12} and R^{13} is hydrogen or unsubstituted C_{1-2} alkyl and the other of R^{12} and R^{13} is an unsubstituted group selected from C_{1-4} alkyl, C_{3-7} carbocyclyl, phenyl, -hydroxy-(C_{1-4})alkyl, -(C_{1-4})alkoxy-(C_{1-4})alkyl, -(C_{1-2})alkyl-phenyl or -(C_{1-2})alkyl-(C_{3-7})carbocyclyl.

14. A compound as claimed in claim 1 which is selected from:

cyclopentyl *N*-(1-{[2,4-dihydroxy-5-(propan-2-yl)phenyl]carbonyl}piperidin-4-yl)-L-leucinate;

cyclopentyl *N*-(1-{[2,4-dihydroxy-5-(propan-2-yl)phenyl]carbonyl}piperidin-4-yl)-2-methylalaninate;

cyclopentyl *N*-(1-{[2,4-dihydroxy-5-(propan-2-yl)phenyl]carbonyl}piperidin-4-yl)-L-valinate;

cyclopentyl (2*S*)-[(1-{[2,4-dihydroxy-5-(propan-2-yl)phenyl]carbonyl}piperidin-4-yl)amino](phenyl)ethanoate;

cyclopentyl *N*-(1-{[2,4-dihydroxy-5-(propan-2-yl)phenyl]carbonyl}piperidin-4-yl)-L-alaninate;

tert-butyl *N*-(1-{[2,4-dihydroxy-5-(propan-2-yl)phenyl]carbonyl}piperidin-4-yl)-L-leucinate;

cyclopentyl *N*-(1-{[2,4-dihydroxy-5-(propan-2-yl)phenyl]carbonyl}piperidin-3-yl)-L-leucinate;

tert-butyl *N*-(1-{[2,4-dihydroxy-5-(propan-2-yl)phenyl]carbonyl}piperidin-4-yl)-L-alaninate;

cyclopentyl *N*-(1-{[2,4-dihydroxy-5-(propan-2-yl)phenyl]carbonyl}piperidin-4-yl)-L-phenylalaninate;

cyclopentyl *N*-(1-{[2,4-dihydroxy-5-(propan-2-yl)phenyl]carbonyl}piperidin-4-yl)-L-norleucinate;

tert-butyl *O*-*tert*-butyl-*N*-(1-{[2,4-dihydroxy-5-(propan-2-yl)phenyl]carbonyl}piperidin-4-yl)-L-serinate;

cyclopentyl *N*-(1-{[2,4-dihydroxy-5-(propan-2-yl)phenyl]carbonyl}piperidin-4-yl)-D-leucinate;

cyclopentyl 3-cyclohexyl-*N*-(1-{[2,4-dihydroxy-5-(propan-2-yl)phenyl]carbonyl}piperidin-4-yl)-L-alaninate;

cyclopentyl (2*S*)-cyclohexyl[(1-{[2,4-dihydroxy-5-(propan-2-yl)phenyl]carbonyl}piperidin-4-yl)amino]ethanoate;

tert-butyl (2*S*)-cyclohexyl[(1-{[2,4-dihydroxy-5-(propan-2-yl)phenyl]carbonyl}piperidin-4-yl)amino]ethanoate;

tert-butyl *N*-(1-{[2,4-dihydroxy-5-(propan-2-yl)phenyl]carbonyl}piperidin-4-yl)-L-phenylalaninate;

cyclopentyl *O*-*tert*-butyl-*N*-(1-{[2,4-dihydroxy-5-(propan-2-yl)phenyl]carbonyl}piperidin-4-yl)-L-serinate;

cyclopentyl *N*-(1-{[2,4-dihydroxy-5-(propan-2-yl)phenyl]carbonyl}piperidin-4-yl)-L-serinate;

tert-butyl *N*-(1-{[2,4-dihydroxy-5-(propan-2-yl)phenyl]carbonyl}piperidin-4-yl)-D-leucinate;

cyclopentyl *N*-(1-{[2,4-dihydroxy-5-(propan-2-yl)phenyl]carbonyl}pyrrolidin-3-yl)-L-leucinate;

cyclopentyl *N*-[(1-{[2,4-dihydroxy-5-(propan-2-yl)phenyl]carbonyl}piperidin-4-yl)methyl]-L-leucinate;

cyclopentyl *N*-[(1-{[2,4-dihydroxy-5-(propan-2-yl)phenyl]carbonyl}piperidin-4-yl)methyl]-L-alaninate;

cyclopentyl *N*-[(1-{[2,4-dihydroxy-5-(propan-2-yl)phenyl]carbonyl}piperidin-4-yl)methyl]-L-phenylalaninate;

tert-butyl *N*-[(1-{[2,4-dihydroxy-5-(propan-2-yl)phenyl]carbonyl}piperidin-4-yl)methyl]-L-leucinate;

tert-butyl *N*-[(1-{[2,4-dihydroxy-5-(propan-2-yl)phenyl]carbonyl}piperidin-4-yl)methyl]-L-phenylalaninate;

tert-butyl *N*-[(1-{[2,4-dihydroxy-5-(propan-2-yl)phenyl]carbonyl}piperidin-4-yl)methyl]-L-alaninate;

tert-butyl *N*-[(1-{[2,4-dihydroxy-5-(propan-2-yl)phenyl]carbonyl}piperidin-4-yl)methyl]-D-leucinate;

cyclopentyl *N*-[(1-{[2,4-dihydroxy-5-(propan-2-yl)phenyl]carbonyl}piperidin-4-yl)methyl]-D-leucinate;

cyclopentyl *N*-[(1-{[2,4-dihydroxy-5-(propan-2-yl)phenyl]carbonyl}piperidin-4-yl)methyl]-L-valinate;

cyclopentyl (2*S*)-cyclohexyl{[(1-{[2,4-dihydroxy-5-(propan-2-yl)phenyl]carbonyl}piperidin-4-yl)methyl]amino}ethanoate;

tert-butyl (2*S*)-cyclohexyl{[(1-{[2,4-dihydroxy-5-(propan-2-yl)phenyl]carbonyl}piperidin-4-yl)methyl]amino}ethanoate;

cyclopentyl *N*-[(1-{[2,4-dihydroxy-5-(propan-2-yl)phenyl]carbonyl}piperidin-4-yl)methyl]-2-methyl-L-alaninate;

cyclopentyl *N*-[(1-{[2,4-dihydroxy-5-(propan-2-yl)phenyl]carbonyl}piperidin-4-yl)methyl]-L-serinate;

cyclopentyl *O*-*tert*-butyl-*N*-[(1-{[2,4-dihydroxy-5-(propan-2-yl)phenyl]carbonyl}piperidin-4-yl)methyl]-L-serinate;

tert-butyl *O*-*tert*-butyl-*N*-[(1-{[2,4-dihydroxy-5-(propan-2-yl)phenyl]carbonyl}piperidin-4-yl)methyl]-L-serinate;

cyclopentyl (2*S*)-{[(1-{[2,4-dihydroxy-5-(propan-2-yl)phenyl]carbonyl}piperidin-4-yl)methyl]amino}(phenyl)ethanoate;

tert-butyl *N*-[(1-{[2,4-dihydroxy-5-(propan-2-yl)phenyl]carbonyl}piperidin-4-yl)methyl]-L-serinate;

cyclopentyl *N*-[2-(1-{[2,4-dihydroxy-5-(propan-2-yl)phenyl]carbonyl}piperidin-4-yl)ethyl]-L-leucinate;

cyclopentyl *N*-[2-(1-{[2,4-dihydroxy-5-(propan-2-yl)phenyl]carbonyl}piperidin-4-yl)ethyl]-L-alaninate;

cyclopentyl *N*-[2-(1-{[2,4-dihydroxy-5-(propan-2-yl)phenyl]carbonyl}piperidin-4-yl)ethyl]-L-phenylalaninate;

tert-butyl *N*-[2-(1-{[2,4-dihydroxy-5-(propan-2-yl)phenyl]carbonyl}piperidin-4-yl)ethyl]-L-phenylalaninate;

tert-butyl *N*-[2-(1-{[2,4-dihydroxy-5-(propan-2-yl)phenyl]carbonyl}piperidin-4-yl)ethyl]-L-leucinate;

tert-butyl *N*-[2-(1-{[2,4-dihydroxy-5-(propan-2-yl)phenyl]carbonyl}piperidin-4-yl)ethyl]-L-alaninate;

cyclopentyl *N*-[2-(1-{[2,4-dihydroxy-5-(propan-2-yl)phenyl]carbonyl}piperidin-4-yl)ethyl]-2-methylalaninate;

cyclopentyl *O*-*tert*-butyl-*N*-[2-(1-{[2,4-dihydroxy-5-(propan-2-yl)phenyl]carbonyl}piperidin-4-yl)ethyl]-L-serinate;

cyclopentyl *N*-[2-(1-{[2,4-dihydroxy-5-(propan-2-yl)phenyl]carbonyl}piperidin-4-yl)ethyl]-L-valinate;

cyclopentyl *N*-[2-(1-{[2,4-dihydroxy-5-(propan-2-yl)phenyl]carbonyl}piperidin-4-yl)ethyl]-L-serinate;

cyclopentyl (2*S*)-cyclohexyl{[2-(1-{[2,4-dihydroxy-5-(propan-2-yl)phenyl]carbonyl}piperidin-4-yl)ethyl]amino}ethanoate;

tert-butyl (2*S*)-cyclohexyl{[2-(1-{[2,4-dihydroxy-5-(propan-2-yl)phenyl]carbonyl}piperidin-4-yl)ethyl]amino}ethanoate;

tert-butyl (2*S*)-{[2-(1-{[2,4-dihydroxy-5-(propan-2-yl)phenyl]carbonyl}piperidin-4-yl)ethyl]amino}(phenyl)ethanoate;

cyclopentyl (2*S*)-{[2-(1-{[2,4-dihydroxy-5-(propan-2-yl)phenyl]carbonyl}piperidin-4-yl)ethyl]amino}(phenyl)ethanoate;

tert-butyl *N*-[2-(1-{[2,4-dihydroxy-5-(propan-2-yl)phenyl]carbonyl}piperidin-4-yl)ethyl]-L-serinate;

tert-butyl *O*-*tert*-butyl-*N*-[2-(1-{[2,4-dihydroxy-5-(propan-2-yl)phenyl]carbonyl}piperidin-4-yl)ethyl]-L-serinate;

cyclopentyl *N*-[(2-{[2,4-dihydroxy-5-(propan-2-yl)phenyl]carbonyl}-2,3-dihydro-1*H*-isoindol-5-yl)methyl]-L-leucinate;

cyclopentyl *N*-[(2-{[2,4-dihydroxy-5-(propan-2-yl)phenyl]carbonyl}-2,3-dihydro-1*H*-isoindol-5-yl)methyl]-2-methylalaninate;

tert-butyl *N*-[(2-{[2,4-dihydroxy-5-(propan-2-yl)phenyl]carbonyl}-2,3-dihydro-1*H*-isoindol-5-yl)methyl]-L-alaninate;

ethyl *N*-[(2-{[2,4-dihydroxy-5-(propan-2-yl)phenyl]carbonyl}-2,3-dihydro-1*H*-isoindol-5-yl)methyl]-L-alaninate;

propan-2-yl *N*-[(2-{[2,4-dihydroxy-5-(propan-2-yl)phenyl]carbonyl}-2,3-dihydro-1*H*-isoindol-5-yl)methyl]-L-alaninate;

cyclopentyl *N*-[(2-{[2,4-dihydroxy-5-(propan-2-yl)phenyl]carbonyl}-2,3-dihydro-1*H*-isoindol-5-yl)methyl]-L-alaninate;

cyclopentyl 1-{[(2-{[2,4-dihydroxy-5-(propan-2-yl)phenyl]carbonyl}-2,3-dihydro-1*H*-isoindol-5-yl)methyl]amino}cyclopentanecarboxylate;

cyclopentyl *N*-[2-(2-{[2,4-dihydroxy-5-(propan-2-yl)phenyl]carbonyl}-2,3-dihydro-1*H*-isoindol-5-yl)ethyl]-L-leucinate;

tert-butyl *N*-[2-(2-{[2,4-dihydroxy-5-(propan-2-yl)phenyl]carbonyl}-2,3-dihydro-1*H*-isoindol-5-yl)ethyl]-L-leucinate;

cyclopentyl 1-{[2-(2-{[2,4-dihydroxy-5-(propan-2-yl)phenyl]carbonyl}-2,3-dihydro-1*H*-isoindol-5-yl)ethyl]amino}cyclopentanecarboxylate;

cyclopentyl *N*-[3-(2-{[2,4-dihydroxy-5-(propan-2-yl)phenyl]carbonyl}-2,3-dihydro-1*H*-isoindol-5-yl)propyl]-L-leucinate;

cyclopentyl 1-{[3-(2-{[2,4-dihydroxy-5-(propan-2-yl)phenyl]carbonyl}-2,3-dihydro-1*H*-isoindol-5-yl)propyl]amino}cyclopentanecarboxylate;

cyclopentyl *N*-(3-{[{[2,4-dihydroxy-5-(propan-2-yl)phenyl]carbonyl}(methyl)amino]methyl}benzyl)-L-leucinate;

cyclopentyl *N*-(3-{[{[2,4-dihydroxy-5-(propan-2-yl)phenyl]carbonyl}(methyl)amino]methyl}benzyl)-2-methylalaninate;

cyclopentyl 1-[(3-{[{[2,4-dihydroxy-5-(propan-2-yl)phenyl]carbonyl}(methyl)amino]methyl}benzyl)amino]cyclopentanecarboxylate;

cyclopentyl (2*S*)-[(3-{[{[2,4-dihydroxy-5-(propan-2-yl)phenyl]carbonyl}(methyl)amino]methyl}benzyl)amino](phenyl)ethanoate;

cyclopentyl *N*-(4-{[{[2,4-dihydroxy-5-(propan-2-yl)phenyl]carbonyl}(methyl)amino]methyl}benzyl)-L-leucinate;

cyclopentyl (2*S*)-[(4-{[{[2,4-dihydroxy-5-(propan-2-yl)phenyl]carbonyl}(methyl)amino]methyl}benzyl)amino](phenyl)ethanoate;

cyclopentyl *N*-(4-{[{[2,4-dihydroxy-5-(propan-2-yl)phenyl]carbonyl}(methyl)amino]methyl}benzyl)-2-methylalaninate;

cyclopentyl *N*-[2-(4-{[{[2,4-dihydroxy-5-(propan-2-yl)phenyl]carbonyl}(methyl)amino]methyl}phenyl)ethyl]-2-methylalaninate;

cyclopentyl *N*-{[(2*R*)-1-{[2,4-dihydroxy-5-(propan-2-yl)phenyl]carbonyl}pyrrolidin-2-yl]methyl}-L-leucinate;

cyclopentyl *N*-{[(2*S*)-1-{[2,4-dihydroxy-5-(propan-2-yl)phenyl]carbonyl}pyrrolidin-2-yl]methyl}-L-leucinate;

cyclopentyl *N*-(1-{[2,4-dihydroxy-5-(propan-2-yl)phenyl]carbonyl}pyrrolidin-3-yl)-D-leucinate;

N-(4-{[{[2,4-dihydroxy-5-(propan-2-yl)phenyl]carbonyl}(methyl)amino]methyl}benzyl)-L-leucine;

N-[(2-{[2,4-dihydroxy-5-(propan-2-yl)phenyl]carbonyl}-2,3-dihydro-1*H*-isoindol-5-yl)methyl]-L-leucine;

N-[(2-{[2,4-dihydroxy-5-(propan-2-yl)phenyl]carbonyl}-2,3-dihydro-1*H*-isoindol-5-yl)methyl]-2-methylalanine;

N-[3-(2-{[2,4-dihydroxy-5-(propan-2-yl)phenyl]carbonyl}-2,3-dihydro-1*H*-isoindol-5-yl)propyl]-L-leucine;

N-[2-(2-{[2,4-dihydroxy-5-(propan-2-yl)phenyl]carbonyl}-2,3-dihydro-1*H*-isoindol-5-yl)ethyl]-L-leucine;

N-[(2-{[2,4-dihydroxy-5-(propan-2-yl)phenyl]carbonyl}-2,3-dihydro-1*H*-isoindol-5-yl)methyl]-L-alanine;

1-{[(2-{[2,4-dihydroxy-5-(propan-2-yl)phenyl]carbonyl}-2,3-dihydro-1*H*-isoindol-5-yl)methyl]amino}cyclopentanecarboxylic acid;

N-(3-{[{[2,4-dihydroxy-5-(propan-2-yl)phenyl]carbonyl}(methyl)amino]methyl}benzyl)-L-leucine;

(2*S*)-[(4-{[{[2,4-dihydroxy-5-(propan-2-yl)phenyl]carbonyl}(methyl)amino]methyl}benzyl)amino](phenyl)ethanoic acid;

N-(4-{[{[2,4-dihydroxy-5-(propan-2-yl)phenyl]carbonyl}(methyl)amino]methyl}benzyl)-2-methylalanine;

N-(3-{[{[2,4-dihydroxy-5-(propan-2-yl)phenyl]carbonyl}(methyl)amino]methyl}benzyl)-2-methylalanine;

1-[(3-{[{[2,4-dihydroxy-5-(propan-2-yl)phenyl]carbonyl}(methyl)amino]methyl}benzyl)amino]cyclopentanecarboxylic acid;

(2*S*)-[(3-{[{[2,4-dihydroxy-5-(propan-2-yl)phenyl]carbonyl}(methyl)amino]methyl}benzyl)amino](phenyl)ethanoic acid;

1-{[3-(2-{[2,4-dihydroxy-5-(propan-2-yl)phenyl]carbonyl}-2,3-dihydro-1*H*-isoindol-5-yl)propyl]amino}cyclopentanecarboxylic acid;

N-[2-(4-{[{[2,4-dihydroxy-5-(propan-2-yl)phenyl]carbonyl}(methyl)amino]methyl}phenyl)ethyl]-2-methylalanine;

N-[2-(1-{[2,4-dihydroxy-5-(propan-2-yl)phenyl]carbonyl}piperidin-4-yl)ethyl]-L-alanine;

1-{[2-(2-{[2,4-dihydroxy-5-(propan-2-yl)phenyl]carbonyl}-2,3-dihydro-1*H*-isoindol-5-yl)ethyl]amino}cyclopentanecarboxylic acid;

N-{[(2*S*)-1-{[2,4-dihydroxy-5-(propan-2-yl)phenyl]carbonyl}pyrrolidin-2-yl]methyl}-L-leucine;

N-(1-{[2,4-dihydroxy-5-(propan-2-yl)phenyl]carbonyl}pyrrolidin-3-yl)-L-leucine;

N-(1-{[2,4-dihydroxy-5-(propan-2-yl)phenyl]carbonyl}piperidin-4-yl)-L-leucine;

N-(1-{[2,4-dihydroxy-5-(propan-2-yl)phenyl]carbonyl}piperidin-4-yl)-2-methylalanine;

N-(1-{[2,4-dihydroxy-5-(propan-2-yl)phenyl]carbonyl}piperidin-4-yl)-L-valine;

(2*S*)-[(1-{[2,4-dihydroxy-5-(propan-2-yl)phenyl]carbonyl}piperidin-4-yl)amino](phenyl)ethanoic acid;

N-(1-{[2,4-dihydroxy-5-(propan-2-yl)phenyl]carbonyl}piperidin-4-yl)-L-alanine;

N-(1-{[2,4-dihydroxy-5-(propan-2-yl)phenyl]carbonyl}piperidin-4-yl)-L-phenylalanine;

N-(1-{[2,4-dihydroxy-5-(propan-2-yl)phenyl]carbonyl}piperidin-3-yl)-L-leucine;

N-[(1-{[2,4-dihydroxy-5-(propan-2-yl)phenyl]carbonyl}piperidin-4-yl)methyl]-L-leucine;

N-[2-(1-{[2,4-dihydroxy-5-(propan-2-yl)phenyl]carbonyl}piperidin-4-yl)ethyl]-L-leucine;

N-(1-{[2,4-dihydroxy-5-(propan-2-yl)phenyl]carbonyl}piperidin-4-yl)-L-norleucine;

N-[(1-{[2,4-dihydroxy-5-(propan-2-yl)phenyl]carbonyl}piperidin-4-yl)methyl]-L-alanine;

N-[(1-{[2,4-dihydroxy-5-(propan-2-yl)phenyl]carbonyl}piperidin-4-yl)methyl]-L-phenylalanine;

N-[(1-{[2,4-dihydroxy-5-(propan-2-yl)phenyl]carbonyl}piperidin-4-yl)methyl]-D-leucine;

N-(1-{[2,4-dihydroxy-5-(propan-2-yl)phenyl]carbonyl}piperidin-4-yl)-D-leucine;

3-cyclohexyl-*N*-(1-{[2,4-dihydroxy-5-(propan-2-yl)phenyl]carbonyl}piperidin-4-yl)-L-alanine;

N-[2-(1-{[2,4-dihydroxy-5-(propan-2-yl)phenyl]carbonyl}piperidin-4-yl)ethyl]-L-phenylalanine;

N-[(1-{[2,4-dihydroxy-5-(propan-2-yl)phenyl]carbonyl}piperidin-4-yl)methyl]-L-valine;

(2*S*)-cyclohexyl[(1-{[2,4-dihydroxy-5-(propan-2-yl)phenyl]carbonyl}piperidin-4-yl)amino]ethanoic acid;

N-[2-(1-{[2,4-dihydroxy-5-(propan-2-yl)phenyl]carbonyl}piperidin-4-yl)ethyl]-2-methylalanine;

O-tert-butyl-*N*-[2-(1-{[2,4-dihydroxy-5-(propan-2-yl)phenyl]carbonyl}piperidin-4-yl)ethyl]-L-serine;

(2*S*)-cyclohexyl{[(1-{[2,4-dihydroxy-5-(propan-2-yl)phenyl]carbonyl}piperidin-4-yl)methyl]amino}ethanoic acid;

N-[(1-{[2,4-dihydroxy-5-(propan-2-yl)phenyl]carbonyl}piperidin-4-yl)methyl]-2-methylalanine;

N-[(1-{[2,4-dihydroxy-5-(propan-2-yl)phenyl]carbonyl}piperidin-4-yl)methyl]-L-serine;

O-tert-butyl-*N*-[(1-{[2,4-dihydroxy-5-(propan-2-yl)phenyl]carbonyl}piperidin-4-yl)methyl]-L-serine;

(2*S*)-{[(1-{[2,4-dihydroxy-5-(propan-2-yl)phenyl]carbonyl}piperidin-4-yl)methyl]amino}(phenyl)ethanoic acid;

N-[2-(1-{[2,4-dihydroxy-5-(propan-2-yl)phenyl]carbonyl}piperidin-4-yl)ethyl]-L-valine;

O-tert-butyl-*N*-(1-{[2,4-dihydroxy-5-(propan-2-yl)phenyl]carbonyl}piperidin-4-yl)-L-serine;

(2*S*)-cyclohexyl{[2-(1-{[2,4-dihydroxy-5-(propan-2-yl)phenyl]carbonyl}piperidin-4-yl)ethyl]amino}ethanoic acid;

(2*S*)-{[2-(1-{[2,4-dihydroxy-5-(propan-2-yl)phenyl]carbonyl}piperidin-4-yl)ethyl]amino}(phenyl)ethanoic acid;

N-(1-{[2,4-dihydroxy-5-(propan-2-yl)phenyl]carbonyl}piperidin-4-yl)-L-serine;

cyclopentyl *N*-{3-[(1-{[2,4-dihydroxy-5-(propan-2-yl) phenyl]carbonyl}piperidin-4-yl)amino]propyl}-L-leucinate; and

N-{3-[(1-{[2,4-dihydroxy-5-(propan-2-yl)phenyl]carbonyl}piperidin-4-yl)amino]propyl}-L-leucine

15. A compound as defined in any one of the preceding claims, for use in treating the human or animal body.

16. A pharmaceutical composition which comprises a compound as defined in any one of claims 1 to 14 and a pharmaceutically acceptable carrier or diluent.

17. A compound as claimed in any one of claims 1 to 14 for use in treating or preventing disorders mediated by HSP90.

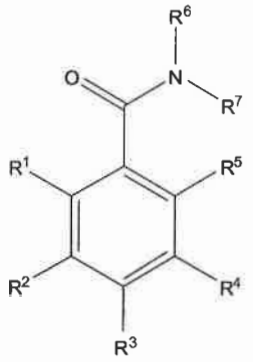
18. Use of a compound as claimed in any one of claims 1 to 14 in the manufacture of a medicament for use in treating or preventing disorders mediated by HSP90.

19. A method of treating a patient suffering from or susceptible to a disorder mediated by HSP90 which method comprises administering to said patient an effective amount of a compound as defined in any one of claims 1 to 14.

20. A compound, use or method as claimed in any one of claims 17 to 19 wherein the disorder mediated by HSP90 is rheumatoid arthritis.

CLAIMS

1. A compound which is (a) a phenylamide derivative of formula (I) or a tautomer thereof, or (b) a pharmaceutically acceptable salt, N-oxide, hydrate, prodrug or solvate thereof:



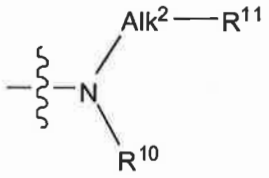
(I)

wherein:

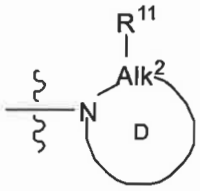
- R^1 and R^3 are hydroxy;
- R^2, R^4 and R^5 are the same or different and represent hydrogen or halogen atoms or C_{1-6} alkyl, C_{2-6} alkenyl, C_{2-6} alkynyl, C_{1-6} alkoxy, hydroxy, cyano, nitro or -NR′R′′ groups wherein R′ and R′′ are the same or different and represent hydrogen or unsubstituted C_{1-4} alkyl, and with the proviso that no more than two of R^2, R^4 and R^5 are cyano or nitro;
- either:
  - (i) R^6 is selected from C_{1-4} alkyl and R^7 represents -CR^8R^9-A wherein R^8 and R^9 are the same or different and represent a hydrogen or halogen atom or a C_{1-4} alkyl, C_{2-4} alkenyl, C_{1-4} alkoxy, hydroxy or -NR′R′′ group where R′ and R′′ are the same or different and represent hydrogen or unsubstituted C_{1-4} alkyl, and A represents a phenyl ring or a 5- or 6-membered heteroaryl group and is substituted with a group W; or
  - (ii) R^6 and R^7, together with the nitrogen atom to which they are bonded, form a 5- or 6-membered heterocyclyl group which is either (a) unfused, or (b) fused to a phenyl ring or a 5- to 6-

membered heteroaryl group, and wherein either the heterocyclyl group or, when fused, the heterocyclyl group or the phenyl ring or heteroaryl group to which it is fused, is substituted with a group W;

- W represents a group -Alk^1-R;
- Alk^1 represents a bond, a C_{1-4} alkylene group or a group -(C_{1-4} alkylene)-NR′-(C_{1-4} alkylene)- wherein R′ represents hydrogen or C_{1-4} alkyl;
- R represents a group of formula (X) or (Y):



(X)



(Y)

- R^{10}, where present, represents a hydrogen atom or a C_{1-4} alkyl group;
- Alk^2 represents a group of formula -$C(R^{12})(R^{13})$- when R is of formula (X) or -$C(R^{12})$- when R is of formula (Y), wherein R^{12} and R^{13} are the same or different and represent hydrogen or the α-substituents of an α-substituted or α,α-disubstituted glycine or glycine ester compound;
- ring D, where present, is a 5- to 6-membered heterocyclyl group containing Alk^2 and wherein R^{11} is linked to ring D via Alk^2, and ring D is optionally fused to a second ring comprising a phenyl, 5- to 6-membered heteroaryl, C_{3-7} carbocylyl or 5- to 6-membered heterocyclyl; and
- R^{11} is an ester group which is hydrolysable by one or more intracellular carboxylesterase enzymes to a -COOH group;

and wherein, unless otherwise stated:

- the alkyl, alkenyl and alkynyl groups and moieties in R^2, R^3, R^4, R^5, R^6, R^8, R^9, Alk^1, R^{12} and R^{13} are unsubstituted or substituted with 1, 2 or 3 unsubstituted substituents which are the same or different and are selected from halogen atoms and C_{1-4} alkyl, C_{2-4} alkenyl, C_{1-4} alkoxy, C_{2-4} alkenyloxy, C_{1-4} haloalkyl, C_{2-4} haloalkenyl, C_{1-4} haloalkoxy, C_{2-4}

haloalkenyloxy, hydroxyl, -SR′, cyano, nitro, C_{1-4} hydroxyalkyl and -NR′R′′ groups where R′ and R′′ are the same or different and represent hydrogen or unsubstituted C_{1-2} alkyl; and

- the aryl, heteroaryl, carbocyclyl and heterocyclyl groups and moieties in R^6 and R^7 are unsubstituted or substituted by 1, 2, 3 or 4 unsubstituted substituents selected from halogen atoms, and cyano, nitro, C_{1-4} alkyl, C_{1-4} alkoxy, C_{2-4} alkenyl, C_{2-4} alkenyloxy, C_{1-4} haloalkyl, C_{2-4} haloalkenyl, C_{1-4} haloalkoxy, C_{2-4} haloalkenyloxy, hydroxyl, C_{1-4} hydroxyalkyl, -SR′ and -NR′R′′ groups wherein each R′ and R′′ is the same or different and represents hydrogen or unsubstituted C_{1-4} alkyl, or from substituents of formula -COOH, -$COOR^A$, -COR^A, -SO_2R^A, -$CONH_2$, -SO_2NH_2, -$CONHR^A$, -SO_2NHR^A, -$CONR^AR^B$, -$SO_2NR^AR^B$, -$OCONH_2$, -$OCONHR^A$, -$OCONR^AR^B$, -$NHCOR^A$, -NR^BCOR^A, -$NHCOOR^A$, -NR^BCOOR^A, -NR^BCOOH, -NHCOOH, -$NHSO_2R^A$, -$NR^BSO_2R^A$, -$NHSO_2OR^A$, -NR^BSO_2OH, -$NHSO_2H$, -$NR^BSO_2OR^A$, -$NHCONH_2$, -NR^ACONH_2, -$NHCONHR^B$, -NR^ACONHR^B, -$NHCONR^AR^B$ or -$NR^ACONR^AR^B$ wherein R^A and R^B are the same or different and represent unsubstituted C_{1-6} alkyl, C_{3-6} cycloalkyl, non-fused phenyl or a non-fused 5- to 6-membered heteroaryl, or R^A and R^B when attached to the same nitrogen atom form a non-fused 5- or 6-membered heterocyclyl group.

2. A compound as claimed in claim 1 wherein R^2, R^4 and R^5 are the same or different and represent hydrogen or halogen atoms or hydroxy, unsubstituted C_{1-4} alkyl or unsubstituted C_{1-4} alkoxy groups.

3. A compound as claimed in any one of the preceding claims wherein either:

(i) R^6 represents -CH_3, R^7 represents -CR^8R^9-A wherein R^8 and R^9 are the same or different and represent a hydrogen or halogen atom or an unsubstituted C_{1-4} alkyl or C_{1-4} alkoxy group, and A represents a phenyl ring substituted with a group W; or

(ii) R^6 and R^7, together with the nitrogen atom to which they are bonded, form a pyrrolidinyl, piperidinyl or isoindolinyl group which is substituted with a group W and is optionally further substituted with 1 or 2 groups which are the same or different and are selected from halogen atoms and unsubstituted C_{1-4} alkyl, C_{1-4} alkoxy, hydroxyl, C_{1-4} haloalkyl, C_{1-4} haloalkoxy, C_{1-4} hydroxyalkyl, cyano, nitro, -SR′ and -NR′R′′ groups where R′ and R′′ are the same or different and represent hydrogen or unsubstituted C_{1-2} alkyl.

4. A compound as claimed in any one of the preceding claims wherein Alk^1 represents a bond, an unsubstituted C_{1-4} alkylene group, or an unsubstituted -(C_{1-2} alkylene)-NH-(C_{1-4} alkylene)- group.

5. A compound as claimed in any one of the preceding claims wherein either:

(i) R^{12} and R^{13} are the same or different and represent hydrogen, C_{1-6} alkyl, C_{3-7} carbocyclyl, C_{6-10} aryl, -(C_{1-4} alkyl)-(C_{6-10} aryl), or -(C_{1-4} alkyl)-(C_{3-7} carbocyclyl); or

(ii) R^{12} and R^{13}, together with the carbon atom to which they are bonded, form a C_{3-7} carbocyclyl group,

wherein the alkyl groups and moieties are unsubstituted or substituted with 1 or 2 substituents selected from unsubstituted C_{1-4} alkyl, C_{1-4} alkoxy, hydroxy and -NR′R′′ groups where R′ and R′′ are the same or different and represent hydrogen or unsubstituted C_{1-2} alkyl, and wherein the aryl and carbocyclyl groups and moieties are unsubstituted or substituted with 1 or 2 substituents selected from halogen atoms and unsubstituted C_{1-4} alkyl, C_{1-4} alkoxy, hydroxyl, C_{1-4} haloalkyl, C_{1-4} haloalkoxy, C_{1-4} hydroxyalkyl, cyano, nitro, -SR′ and -NR′R′′ groups where R′ and R′′ are the same or different and represent hydrogen or unsubstituted C_{1-2} alkyl.

6. A compound as claimed in claim 5 wherein either:

(i) R^{12} and R^{13} are the same or different and represent a hydrogen atom or an unsubstituted group selected from C_{1-4} alkyl, C_{3-7} carbocyclyl,

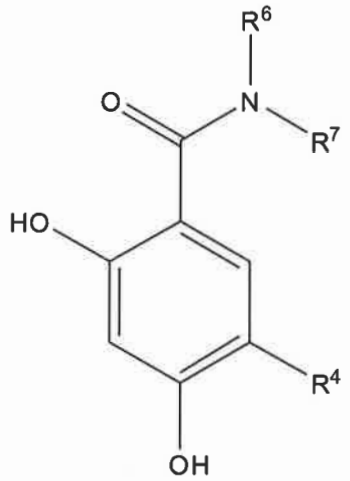
phenyl, -hydroxy-(C_{1-4})alkyl, -(C_{1-4})alkoxy-(C_{1-4})alkyl, -(C_{1-2})alkyl-phenyl or -(C_{1-2})alkyl-(C_{3-7})carbocyclyl; or

(ii) R^{12} and R^{13}, together with the carbon atom to which they are bonded, form an unsubstituted C_{3-7} carbocyclyl group.

7. A compound as claimed in any one of the preceding claims wherein R represents a group of formula (X) and R^{10} represents a hydrogen atom.

8. A compound as claimed in any one of the preceding claims wherein R^{11} is -$COOR^{20}$ wherein R^{20} represents unsubstituted C_{1-4} alkyl or C_{3-7} carbocyclyl.

9. A compound as claimed in any one of the preceding claims which is (a) a phenylamide derivative of formula (IA) or a tautomer thereof, or (b) a pharmaceutically acceptable salt, N-oxide, hydrate, prodrug or solvate thereof:



(IA)

wherein:

- R^4 represents an unsubstituted C_{1-4} alkyl group;
- either:
  - R^6 represents -CH_3, R^7 represents -CR^8R^9-A wherein R^8 and R^9 are the same or different and represent a hydrogen or halogen atom or an unsubstituted C_{1-4} alkyl or C_{1-4} alkoxy group, and A represents a phenyl ring substituted with a group W; or

- R^6 and R^7, together with the nitrogen atom to which they are bonded, form a pyrrolidine, piperidine or isoindoline group which is substituted with a group W and which is optionally further substituted with 1 or 2 groups which are the same or different and are selected from halogen atoms and unsubstituted C_{1-4} alkyl, C_{1-4} alkoxy, hydroxyl, C_{1-4} haloalkyl, C_{1-4} haloalkoxy, C_{1-4} hydroxyalkyl, cyano, nitro, -SR′ and -NR′R′′ groups where R′ and R′′ are the same or different and represent hydrogen or unsubstituted C_{1-2} alkyl;

- Alk^1 represents a bond, an unsubstituted C_{1-4} alkylene group, or an unsubstituted -(C_{1-2} alkylene)-NH-(C_{1-4} alkylene)- group;
- R represents a group of formula (X) wherein R^{10} represents hydrogen;
- Alk^2 represents a group of formula -$C(R^{12})(R^{13})$- and either:
  - R^{12} and R^{13} are the same or different and represent hydrogen, C_{1-6} alkyl, C_{3-7} carbocyclyl, C_{6-10} aryl, -(C_{1-4} alkyl)-(C_{6-10} aryl), or -(C_{1-4} alkyl)-(C_{3-7} carbocyclyl); or
  - R^{12} and R^{13}, together with the carbon atom to which they are bonded, form a C_{3-7} carbocyclyl group,

  wherein the alkyl groups and moieties in R^{12} and R^{13} are unsubstituted or substituted with 1 or 2 substituents selected from unsubstituted C_{1-4} alkyl, C_{1-4} alkoxy, hydroxy and -NR′R′′ groups where R′ and R′′ are the same or different and represent hydrogen or unsubstituted C_{1-2} alkyl, and wherein the aryl and carbocyclyl groups and moieties in R^{12} and R^{13} are unsubstituted or substituted with 1 or 2 substituents selected from halogen atoms and unsubstituted C_{1-4} alkyl, C_{1-4} alkoxy, hydroxyl, C_{1-4} haloalkyl, C_{1-4} haloalkoxy, C_{1-4} hydroxyalkyl, cyano, nitro, -SR′ and -NR′R′′ groups where R′ and R′′ are the same or different and represent hydrogen or unsubstituted C_{1-2} alkyl; and
- R^{11} is -$COOR^{20}$ wherein R^{20} represents unsubstituted C_{1-4} alkyl or C_{3-7} carbocyclyl.

10. A compound as claimed in claim 9 wherein R^4 represents isopropyl.

11. A compound as claimed in claim 9 or claim 10 wherein either:

- R^6 represents $-CH_3$, R^7 represents $-CH_2$-phenyl wherein the phenyl ring is substituted with a single group W; or
- R^6 and R^7, together with the nitrogen atom to which they are bonded, form a pyrrolidinyl, piperidinyl or isoindolinyl group which is substituted with a single group W.

12. A compound as claimed in any one of claims 9 to 11 wherein one of R^{12} and R^{13} is hydrogen or unsubstituted C_{1-2} alkyl and the other of R^{12} and R^{13} is an unsubstituted group selected from C_{1-4} alkyl, C_{3-7} carbocyclyl, phenyl, -hydroxy-(C_{1-4})alkyl, -(C_{1-4})alkoxy-(C_{1-4})alkyl, -(C_{1-2})alkyl-phenyl or -(C_{1-2})alkyl-(C_{3-7})carbocyclyl.

13. A compound as claimed in claim 1 which is selected from:

cyclopentyl *N*-(1-{[2,4-dihydroxy-5-(propan-2-yl)phenyl]carbonyl}piperidin-4-yl)-L-leucinate;

cyclopentyl *N*-(1-{[2,4-dihydroxy-5-(propan-2-yl)phenyl]carbonyl}piperidin-4-yl)-2-methylalaninate;

cyclopentyl *N*-(1-{[2,4-dihydroxy-5-(propan-2-yl)phenyl]carbonyl}piperidin-4-yl)-L-valinate;

cyclopentyl (2*S*)-[(1-{[2,4-dihydroxy-5-(propan-2-yl)phenyl]carbonyl}piperidin-4-yl)amino](phenyl)ethanoate;

cyclopentyl *N*-(1-{[2,4-dihydroxy-5-(propan-2-yl)phenyl]carbonyl}piperidin-4-yl)-L-alaninate;

tert-butyl *N*-(1-{[2,4-dihydroxy-5-(propan-2-yl)phenyl]carbonyl}piperidin-4-yl)-L-leucinate;

cyclopentyl *N*-(1-{[2,4-dihydroxy-5-(propan-2-yl)phenyl]carbonyl}piperidin-3-yl)-L-leucinate;

tert-butyl *N*-(1-{[2,4-dihydroxy-5-(propan-2-yl)phenyl]carbonyl}piperidin-4-yl)-L-alaninate;

cyclopentyl *N*-(1-{[2,4-dihydroxy-5-(propan-2-yl)phenyl]carbonyl}piperidin-4-yl)-L-phenylalaninate;

cyclopentyl *N*-(1-{[2,4-dihydroxy-5-(propan-2-yl)phenyl]carbonyl}piperidin-4-yl)-L-norleucinate;

tert-butyl *O*-*tert*-butyl-*N*-(1-{[2,4-dihydroxy-5-(propan-2-yl)phenyl]carbonyl}piperidin-4-yl)-L-serinate;

cyclopentyl *N*-(1-{[2,4-dihydroxy-5-(propan-2-yl)phenyl]carbonyl}piperidin-4-yl)-D-leucinate;

cyclopentyl 3-cyclohexyl-*N*-(1-{[2,4-dihydroxy-5-(propan-2-yl)phenyl]carbonyl}piperidin-4-yl)-L-alaninate;

cyclopentyl (2*S*)-cyclohexyl[(1-{[2,4-dihydroxy-5-(propan-2-yl)phenyl]carbonyl}piperidin-4-yl)amino]ethanoate;

tert-butyl (2*S*)-cyclohexyl[(1-{[2,4-dihydroxy-5-(propan-2-yl)phenyl]carbonyl}piperidin-4-yl)amino]ethanoate;

tert-butyl *N*-(1-{[2,4-dihydroxy-5-(propan-2-yl)phenyl]carbonyl}piperidin-4-yl)-L-phenylalaninate;

cyclopentyl *O*-*tert*-butyl-*N*-(1-{[2,4-dihydroxy-5-(propan-2-yl)phenyl]carbonyl}piperidin-4-yl)-L-serinate;

cyclopentyl *N*-(1-{[2,4-dihydroxy-5-(propan-2-yl)phenyl]carbonyl}piperidin-4-yl)-L-serinate;

tert-butyl *N*-(1-{[2,4-dihydroxy-5-(propan-2-yl)phenyl]carbonyl}piperidin-4-yl)-D-leucinate;

cyclopentyl *N*-(1-{[2,4-dihydroxy-5-(propan-2-yl)phenyl]carbonyl}pyrrolidin-3-yl)-L-leucinate;

cyclopentyl *N*-[(1-{[2,4-dihydroxy-5-(propan-2-yl)phenyl]carbonyl}piperidin-4-yl)methyl]-L-leucinate;

cyclopentyl *N*-[(1-{[2,4-dihydroxy-5-(propan-2-yl)phenyl]carbonyl}piperidin-4-yl)methyl]-L-alaninate;

cyclopentyl *N*-[(1-{[2,4-dihydroxy-5-(propan-2-yl)phenyl]carbonyl}piperidin-4-yl)methyl]-L-phenylalaninate;

tert-butyl *N*-[(1-{[2,4-dihydroxy-5-(propan-2-yl)phenyl]carbonyl}piperidin-4-yl)methyl]-L-leucinate;

tert-butyl *N*-[(1-{[2,4-dihydroxy-5-(propan-2-yl)phenyl]carbonyl}piperidin-4-yl)methyl]-L-phenylalaninate;

tert-butyl *N*-[(1-{[2,4-dihydroxy-5-(propan-2-yl)phenyl]carbonyl}piperidin-4-yl)methyl]-L-alaninate;

tert-butyl *N*-[(1-{[2,4-dihydroxy-5-(propan-2-yl)phenyl]carbonyl}piperidin-4-yl)methyl]-D-leucinate;

cyclopentyl *N*-[(1-{[2,4-dihydroxy-5-(propan-2-yl)phenyl]carbonyl}piperidin-4-yl)methyl]-D-leucinate;

cyclopentyl *N*-[(1-{[2,4-dihydroxy-5-(propan-2-yl)phenyl]carbonyl}piperidin-4-yl)methyl]-L-valinate;

cyclopentyl (2*S*)-cyclohexyl{[(1-{[2,4-dihydroxy-5-(propan-2-yl)phenyl]carbonyl}piperidin-4-yl)methyl]amino}ethanoate;

tert-butyl (2*S*)-cyclohexyl{[(1-{[2,4-dihydroxy-5-(propan-2-yl)phenyl]carbonyl}piperidin-4-yl)methyl]amino}ethanoate;

cyclopentyl *N*-[(1-{[2,4-dihydroxy-5-(propan-2-yl)phenyl]carbonyl}piperidin-4-yl)methyl]-2-methyl-L-alaninate;

cyclopentyl *N*-[(1-{[2,4-dihydroxy-5-(propan-2-yl)phenyl]carbonyl}piperidin-4-yl)methyl]-L-serinate;

cyclopentyl *O*-*tert*-butyl-*N*-[(1-{[2,4-dihydroxy-5-(propan-2-yl)phenyl]carbonyl}piperidin-4-yl)methyl]-L-serinate;

tert-butyl *O*-*tert*-butyl-*N*-[(1-{[2,4-dihydroxy-5-(propan-2-yl)phenyl]carbonyl}piperidin-4-yl)methyl]-L-serinate;

cyclopentyl (2*S*)-{[(1-{[2,4-dihydroxy-5-(propan-2-yl)phenyl]carbonyl}piperidin-4-yl)methyl]amino}(phenyl)ethanoate;

tert-butyl *N*-[(1-{[2,4-dihydroxy-5-(propan-2-yl)phenyl]carbonyl}piperidin-4-yl)methyl]-L-serinate;

cyclopentyl *N*-[2-(1-{[2,4-dihydroxy-5-(propan-2-yl)phenyl]carbonyl}piperidin-4-yl)ethyl]-L-leucinate;

cyclopentyl *N*-[2-(1-{[2,4-dihydroxy-5-(propan-2-yl)phenyl]carbonyl}piperidin-4-yl)ethyl]-L-alaninate;

cyclopentyl *N*-[2-(1-{[2,4-dihydroxy-5-(propan-2-yl)phenyl]carbonyl}piperidin-4-yl)ethyl]-L-phenylalaninate;

tert-butyl *N*-[2-(1-{[2,4-dihydroxy-5-(propan-2-yl)phenyl]carbonyl}piperidin-4-yl)ethyl]-L-phenylalaninate;

tert-butyl *N*-[2-(1-{[2,4-dihydroxy-5-(propan-2-yl)phenyl]carbonyl}piperidin-4-yl)ethyl]-L-leucinate;

tert-butyl *N*-[2-(1-{[2,4-dihydroxy-5-(propan-2-yl)phenyl]carbonyl}piperidin-4-yl)ethyl]-L-alaninate;

cyclopentyl *N*-[2-(1-{[2,4-dihydroxy-5-(propan-2-yl)phenyl]carbonyl}piperidin-4-yl)ethyl]-2-methylalaninate;

cyclopentyl *O*-*tert*-butyl-*N*-[2-(1-{[2,4-dihydroxy-5-(propan-2-yl)phenyl]carbonyl}piperidin-4-yl)ethyl]-L-serinate;

cyclopentyl *N*-[2-(1-{[2,4-dihydroxy-5-(propan-2-yl)phenyl]carbonyl}piperidin-4-yl)ethyl]-L-valinate;

cyclopentyl *N*-[2-(1-{[2,4-dihydroxy-5-(propan-2-yl)phenyl]carbonyl}piperidin-4-yl)ethyl]-L-serinate;

cyclopentyl (2*S*)-cyclohexyl{[2-(1-{[2,4-dihydroxy-5-(propan-2-yl)phenyl]carbonyl}piperidin-4-yl)ethyl]amino}ethanoate;

tert-butyl (2*S*)-cyclohexyl{[2-(1-{[2,4-dihydroxy-5-(propan-2-yl)phenyl]carbonyl}piperidin-4-yl)ethyl]amino}ethanoate;

tert-butyl (2*S*)-{[2-(1-{[2,4-dihydroxy-5-(propan-2-yl)phenyl]carbonyl}piperidin-4-yl)ethyl]amino}(phenyl)ethanoate;

cyclopentyl (2*S*)-{[2-(1-{[2,4-dihydroxy-5-(propan-2-yl)phenyl]carbonyl}piperidin-4-yl)ethyl]amino}(phenyl)ethanoate;

tert-butyl *N*-[2-(1-{[2,4-dihydroxy-5-(propan-2-yl)phenyl]carbonyl}piperidin-4-yl)ethyl]-L-serinate;

tert-butyl *O*-*tert*-butyl-*N*-[2-(1-{[2,4-dihydroxy-5-(propan-2-yl)phenyl]carbonyl}piperidin-4-yl)ethyl]-L-serinate;

cyclopentyl *N*-[(2-{[2,4-dihydroxy-5-(propan-2-yl)phenyl]carbonyl}-2,3-dihydro-1*H*-isoindol-5-yl)methyl]-L-leucinate;

cyclopentyl *N*-[(2-{[2,4-dihydroxy-5-(propan-2-yl)phenyl]carbonyl}-2,3-dihydro-1*H*-isoindol-5-yl)methyl]-2-methylalaninate;

tert-butyl *N*-[(2-{[2,4-dihydroxy-5-(propan-2-yl)phenyl]carbonyl}-2,3-dihydro-1*H*-isoindol-5-yl)methyl]-L-alaninate;

ethyl *N*-[(2-{[2,4-dihydroxy-5-(propan-2-yl)phenyl]carbonyl}-2,3-dihydro-1*H*-isoindol-5-yl)methyl]-L-alaninate;

propan-2-yl *N*-[(2-{[2,4-dihydroxy-5-(propan-2-yl)phenyl]carbonyl}-2,3-dihydro-1*H*-isoindol-5-yl)methyl]-L-alaninate;

cyclopentyl *N*-[(2-{[2,4-dihydroxy-5-(propan-2-yl)phenyl]carbonyl}-2,3-dihydro-1*H*-isoindol-5-yl)methyl]-L-alaninate;

cyclopentyl 1-{[(2-{[2,4-dihydroxy-5-(propan-2-yl)phenyl]carbonyl}-2,3-dihydro-1*H*-isoindol-5-yl)methyl]amino}cyclopentanecarboxylate;

cyclopentyl *N*-[2-(2-{[2,4-dihydroxy-5-(propan-2-yl)phenyl]carbonyl}-2,3-dihydro-1*H*-isoindol-5-yl)ethyl]-L-leucinate;

tert-butyl *N*-[2-(2-{[2,4-dihydroxy-5-(propan-2-yl)phenyl]carbonyl}-2,3-dihydro-1*H*-isoindol-5-yl)ethyl]-L-leucinate;

cyclopentyl 1-{[2-(2-{[2,4-dihydroxy-5-(propan-2-yl)phenyl]carbonyl}-2,3-dihydro-1*H*-isoindol-5-yl)ethyl]amino}cyclopentanecarboxylate;

cyclopentyl *N*-[3-(2-{[2,4-dihydroxy-5-(propan-2-yl)phenyl]carbonyl}-2,3-dihydro-1*H*-isoindol-5-yl)propyl]-L-leucinate;

cyclopentyl 1-{[3-(2-{[2,4-dihydroxy-5-(propan-2-yl)phenyl]carbonyl}-2,3-dihydro-1*H*-isoindol-5-yl)propyl]amino}cyclopentanecarboxylate;

cyclopentyl *N*-(3-{[{[2,4-dihydroxy-5-(propan-2-yl)phenyl]carbonyl}(methyl)amino]methyl}benzyl)-L-leucinate;

cyclopentyl *N*-(3-{[{[2,4-dihydroxy-5-(propan-2-yl)phenyl]carbonyl}(methyl)amino]methyl}benzyl)-2-methylalaninate;

cyclopentyl 1-[(3-{[{[2,4-dihydroxy-5-(propan-2-yl)phenyl]carbonyl}(methyl)amino]methyl}benzyl)amino]cyclopentanecarboxylate;

cyclopentyl (2*S*)-[(3-{[{[2,4-dihydroxy-5-(propan-2-yl)phenyl]carbonyl}(methyl)amino]methyl}benzyl)amino](phenyl)ethanoate;

cyclopentyl *N*-(4-{[{[2,4-dihydroxy-5-(propan-2-yl)phenyl]carbonyl}(methyl)amino]methyl}benzyl)-L-leucinate;

cyclopentyl (2*S*)-[(4-{[{[2,4-dihydroxy-5-(propan-2-yl)phenyl]carbonyl}(methyl)amino]methyl}benzyl)amino](phenyl)ethanoate;

cyclopentyl *N*-(4-{[{[2,4-dihydroxy-5-(propan-2-yl)phenyl]carbonyl}(methyl)amino]methyl}benzyl)-2-methylalaninate;

cyclopentyl *N*-[2-(4-{[{[2,4-dihydroxy-5-(propan-2-yl)phenyl]carbonyl}(methyl)amino]methyl}phenyl)ethyl]-2-methylalaninate;

cyclopentyl *N*-{[(2*R*)-1-{[2,4-dihydroxy-5-(propan-2-yl)phenyl]carbonyl}pyrrolidin-2-yl]methyl}-L-leucinate;

cyclopentyl *N*-{[(2*S*)-1-{[2,4-dihydroxy-5-(propan-2-yl)phenyl]carbonyl}pyrrolidin-2-yl]methyl}-L-leucinate;

cyclopentyl *N*-(1-{[2,4-dihydroxy-5-(propan-2-yl)phenyl]carbonyl}pyrrolidin-3-yl)-D-leucinate; and

cyclopentyl *N*-{3-[(1-{[2,4-dihydroxy-5-(propan-2-yl) phenyl]carbonyl}piperidin-4-yl)amino]propyl}-L-leucinate.

14. A compound as defined in any one of the preceding claims, for use in treating the human or animal body.

15. A pharmaceutical composition which comprises a compound as defined in any one of claims 1 to 13 and a pharmaceutically acceptable carrier or diluent.

16. A compound as claimed in any one of claims 1 to 13 for use in treating or preventing disorders mediated by HSP90.

17. Use of a compound as claimed in any one of claims 1 to 13 in the manufacture of a medicament for use in treating or preventing disorders mediated by HSP90.

18. A compound, use or method as claimed in any one of claims 16 to 17 wherein the disorder mediated by HSP90 is rheumatoid arthritis.