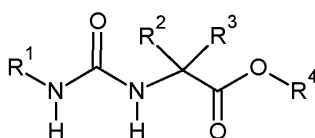


CLAIMS:

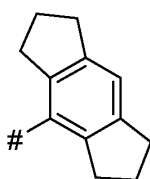
1. A compound of Formula (I) or pharmaceutically acceptable salt thereof:

5



in which:

- 10 **R₁** is a 5 or 6 membered alkyl or aryl monocycle, having at least one group substituent comprising a (2-8C) alkyl or a 9 or 10 membered bicyclic partially unsaturated carbocyclic ring system, wherein said bicyclic ring system is optionally substituted by 1, 2, 3 or 4 substituents independently selected from (1-6C)alkyl, (2-6C)alkenylene, (2-6C)alkynylene, (3-8C)cycloalkyl, (1-3C)alkoxy, halo, oxo, hydroxy, cyano, amino, (1-3C)alkylamino, di-[(1-3C)alkyl]-amino, CF₃, OCF₃, S(O)₂CH₃, S(O)CH₃, S(O)₂NH₂, S(O)₂NHCH₃, S(O)₂N(CH₃)₂, NHS(O)₂CH₃ and N(CH₃)S(O)₂CH₃ or a 12, 13, 14, 15 or 16 membered tricyclic partially unsaturated carbocyclic ring system, wherein said tricyclic ring system is an unsubstituted hexahydroindacene ring



20

- wherein # denotes the bond to the nitrogen atom of Formula (I), or said tricyclic ring system is an optionally substituted by 1, 2, 3 or 4 substituents independently selected from (1-6C)alkyl, (2-6C)alkenylene, (2-6C)alkynylene, (3-8C)cycloalkyl, (1-3C)alkoxy, halo, oxo, hydroxy, cyano, amino, (1-3C)alkylamino, di-[(1-3C)alkyl]-amino, CF₃, OCF₃, S(O)₂CH₃, S(O)CH₃, S(O)₂NH₂, S(O)₂NHCH₃, S(O)₂N(CH₃)₂, NHS(O)₂CH₃ and N(CH₃)S(O)₂CH₃;
- 25

R₂ is H

R₃ is Alkyl(C1-4)-**R₇**,

wherein **R₇** is selected from a 5 or 6 membered monocyclic aryl or non-aryl ring system comprising 1, 2 or 3 heteroatoms independently selected from oxygen, nitrogen and sulfur, or 3, 4, 5 or 6 membered monocyclic heterocyclyl ring system comprising 1 or 2 heteroatoms independently selected from oxygen, nitrogen and sulfur, wherein said heterocyclic **R₇** ring system is optionally substituted with 1 or more substituents independently selected from (1-6C) alkyl, alkylhydroxy, nitro, OH, COCH₃, halo, amino, cyano, and **R₈**,

or

wherein **R₇** is selected from a 5 or 6 membered monocyclic aryl or non-aryl ring system optionally comprising 1, 2 or 3 heteroatoms independently selected from oxygen, nitrogen and sulfur, or 3, 4, 5 or 6 membered monocyclic heterocyclyl ring system optionally comprising 1 or 2 heteroatoms independently selected from oxygen, nitrogen and sulfur or a 3, 4, 5 or 6 membered saturated or partially unsaturated carbocyclic ring system and the **R₇** ring system is substituted with 1 or more substituents independently selected from (1-6C) alkyl, alkylhydroxy, nitro, OH, COCH₃, halo, amino, cyano, and **R₈**,

wherein **R₈** is, an optionally N-linked, 5 or 6 membered monocyclic heteroaryl ring comprising 1 or 2 heteroatoms independently selected from oxygen, nitrogen and sulfur, or a 3, 4, 5 or 6 membered monocyclic heterocyclyl ring system comprising 1 heteroatom independently selected from oxygen, nitrogen and sulfur, said ring being optionally substituted with an alkyl, oxo, halo or amino group; and

R₄ is H, alkyl, monocyclic alkyl or monocyclic aryl group.

2. The compound of claim 1, wherein **R₃** is Methyl- **R₇** or Ethyl-**R₇**.

3. The compound of claim 1 or Claim 2, wherein **R₇** is a monocyclic aryl, optionally

substituted with at least one hydroxyl group.

4. The compound of Claim 1 or Claim 2, wherein R_7 is a monocyclic aryl with a cyano substitution.

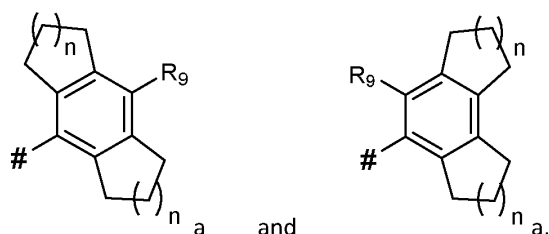
5

5. The compound of Claim 1 or Claim 2, wherein R_7 is a 5 or 6 membered monocyclic aryl ring comprising 1, 2 or 3 heteroatoms independently selected from oxygen, nitrogen and sulfur.

10 6. The compound of any preceding claim, wherein R_4 is alkyl (C1-C4) or cyclo alkyl (C3-C6).

7. The compound of any preceding claim, wherein R_1 is:

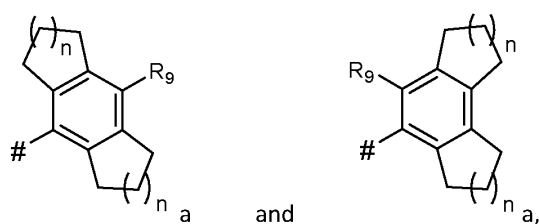
15 a 12, 13, 14, 15 or 16 membered tricyclic partially unsaturated carbocyclic ring system selected from the group consisting of



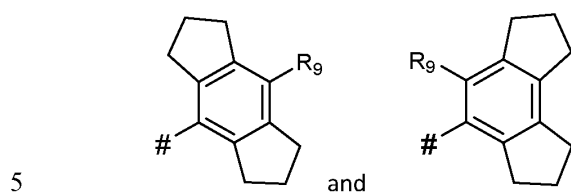
wherein # denotes the bond to the nitrogen atom of Formula (I); wherein n and n_a is an integer independently selected from 0, 1, 2 and 3; and wherein R_9 is selected from the group consisting of hydrogen, (1-6C)alkyl, (2-6C)alkenylene, (2-6C)alkynylene, (3-8C)cycloalkyl, halo, oxo, hydroxy, cyano, amino, (1-3C)alkylamino, di-[(1-3C)alkyl]-amino, CF_3 , OCF_3 , $S(O)_2CH_3$, $S(O)CH_3$, $S(O)_2NH_2$, $S(O)_2NHCH_3$, $S(O)_2N(CH_3)_2$, $NHS(O)_2CH_3$ and $N(CH_3)S(O)_2CH_3$; or

25

a 12, 13, 14, 15 or 16 membered tricyclic partially unsaturated carbocyclic ring system selected from the group consisting of

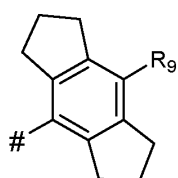


wherein # denotes the bond to the nitrogen atom of Formula (I); wherein n and n_a is an integer independently selected from 0, 1, 2 and 3; and wherein R_9 is selected from the group consisting of hydrogen, (1-6C)alkyl, halo, CF_3 and OCF_3 ; or



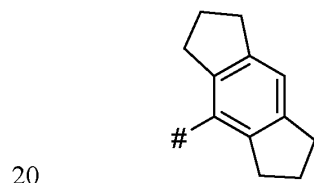
wherein # denotes the bond to the nitrogen atom of Formula (I); and wherein R_9 is selected from the group consisting of hydrogen, (1-6C)alkyl, (2-6C)alkenylene, (2-6C)alkynylene, (3-8C)cycloalkyl, halo, oxo, hydroxy, cyano, amino, (1-3C)alkylamino, di-[(1-3C)alkyl]-amino, CF_3 , OCF_3 , $S(O)_2CH_3$, $S(O)CH_3$, $S(O)_2NH_2$, $S(O)_2NHCH_3$, $S(O)_2N(CH_3)_2$, $NHS(O)_2CH_3$ and $N(CH_3)S(O)_2CH_3$; or

10



15 wherein # denotes the bond to the nitrogen atom of Formula (I); and wherein R_9 is selected from hydrogen, (1-6C)alkyl, halo, CF_3 and OCF_3 ; or

an unsubstituted hexahydroindacene ring:



wherein # denotes the bond to the nitrogen atom of Formula (I).

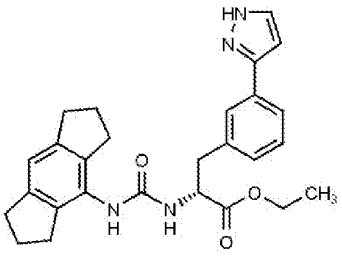
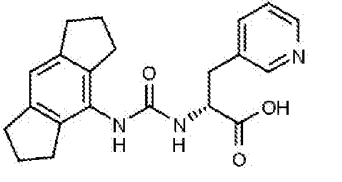
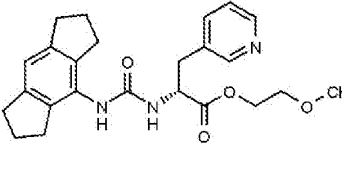
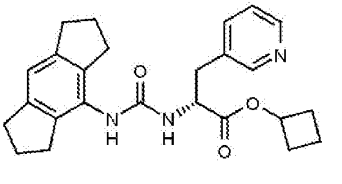
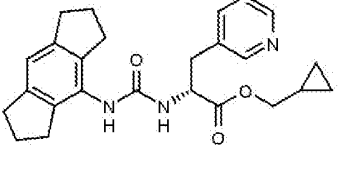
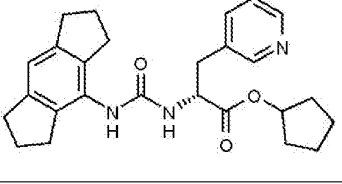
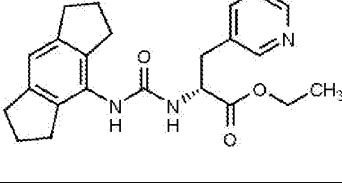
8. A compound of any of the preceding claims wherein the compound is selected from
 5 the group consisting of:

Structure	Name
	methyl 2-([(1,2,3,5,6,7-hexahydro-s-indacen-4-yl)carbamoyl]amino)-3-(3-hydroxyphenyl)propanoate
	Methyl 2-([(1,2,3,5,6,7-hexahydro-s-indacen-4-yl)carbamoyl]amino)-3-(2-hydroxyphenyl)propanoate
	methyl 3-(3-acetylphenyl)-2-([(1,2,3,5,6,7-hexahydro-s-indacen-4-yl)carbamoyl]amino)propanoate
	methyl (2R)-3-(4-cyanophenyl)-2-([(1,2,3,5,6,7-hexahydro-s-indacen-4-yl)carbamoyl]amino)propanoate
	methyl (2R)-3-(3-cyanophenyl)-2-([(1,2,3,5,6,7-hexahydro-s-indacen-4-yl)carbamoyl]amino)propanoate

	methyl (2R)-2-([(1,2,3,5,6,7-hexahydro-s-indacen-4-yl)carbamoyl]amino)-3-(pyridin-2-yl)propanoate
	methyl 2-([(1,2,3,5,6,7-hexahydro-s-indacen-4-yl)carbamoyl]amino)-3-[3-(hydroxymethyl)phenyl]propanoate
	methyl (2R)-2-([(1,2,3,5,6,7-hexahydro-s-indacen-4-yl)carbamoyl]amino)-3-(pyridin-3-yl)propanoate
	methyl 2-([(1,2,3,5,6,7-hexahydro-s-indacen-4-yl)carbamoyl]amino)-3-[3-(1-methyl-1H-imidazol-5-yl)phenyl]propanoate
	Methyl 2-([(1,2,3,5,6,7-hexahydro-s-indacen-4-yl)carbamoyl]amino)-3-[3-(1H-pyrazol-5-yl)phenyl]propanoate
	methyl (2R)-2-([(1,2,3,5,6,7-hexahydro-s-indacen-4-yl)carbamoyl]amino)-3-(3-hydroxyphenyl)propanoate

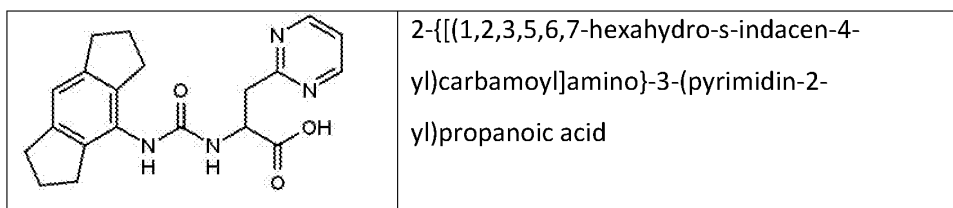
	methyl (2R)-2-([(1,2,3,5,6,7-hexahydro-s-indacen-4-yl)carbamoyl]amino)-3-[3-(1H-pyrazol-3-yl)phenyl]propanoate
	methyl (2R)-2-([(1,2,3,5,6,7-hexahydro-s-indacen-4-yl)carbamoyl]amino)-3-[3-(hydroxymethyl)phenyl]propanoate
	methyl (2R)-3-(3-acetamidophenyl)-2-([(1,2,3,5,6,7-hexahydro-s-indacen-4-yl)carbamoyl]amino)propanoate
	methyl 2-([(1,2,3,5,6,7-hexahydro-s-indacen-4-yl)carbamoyl]amino)-3-(1-methyl-1H-pyrazol-4-yl)propanoate
	methyl (2R)-2-([(1,2,3,5,6,7-hexahydro-s-indacen-4-yl)carbamoyl]amino)-3-[3-(2-oxopyrrolidin-1-yl)phenyl]propanoate

	methyl (2R)-2-([(1,2,3,5,6,7-hexahydro-s-indacen-4-yl)carbamoyl]amino)-3-{3-[(1H-pyrazol-3-yl)amino]phenyl}propanoate
	(2R)-2-([(1,2,3,5,6,7-hexahydro-s-indacen-4-yl)carbamoyl]amino)-3-[3-(1H-pyrazol-3-yl)phenyl]propanoic acid
	methyl (2R)-2-([(1,2,3,5,6,7-hexahydro-s-indacen-4-yl)carbamoyl]amino)-3-(4-hydroxyphenyl)propanoate
	methyl (2R)-2-([(1,2,3,5,6,7-hexahydro-s-indacen-4-yl)carbamoyl]amino)-3-(thiophen-2-yl)propanoate
	methyl 2-([(1,2,3,5,6,7-hexahydro-s-indacen-4-yl)carbamoyl]amino)-3-(1H-imidazol-1-yl)propanoate
	methyl (2R)-3-(3-aminophenyl)-2-([(1,2,3,5,6,7-hexahydro-s-indacen-4-yl)carbamoyl]amino)propanoate

	ethyl (2R)-2-([(1,2,3,5,6,7-hexahydro-s-indacen-4-yl)carbamoyl]amino)-3-[3-(1H-pyrazol-4-yl)phenyl]propanoate
	(2R)-2-([(1,2,3,5,6,7-hexahydro-s-indacen-4-yl)carbamoyl]amino)-3-(pyridin-3-yl)propanoic acid
	2-methoxyethyl (2R)-2-([(1,2,3,5,6,7-hexahydro-s-indacen-4-yl)carbamoyl]amino)-3-(pyridin-3-yl)propanoate
	cyclobutyl (2R)-2-([(1,2,3,5,6,7-hexahydro-s-indacen-4-yl)carbamoyl]amino)-3-(pyridin-3-yl)propanoate
	cyclopropylmethyl (2R)-2-([(1,2,3,5,6,7-hexahydro-s-indacen-4-yl)carbamoyl]amino)-3-(pyridin-3-yl)propanoate
	cyclopentyl (2R)-2-([(1,2,3,5,6,7-hexahydro-s-indacen-4-yl)carbamoyl]amino)-3-(pyridin-3-yl)propanoate
	ethyl (2R)-2-([(1,2,3,5,6,7-hexahydro-s-indacen-4-yl)carbamoyl]amino)-3-(pyridin-3-yl)propanoate

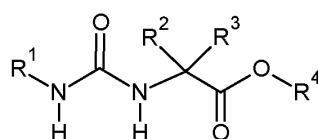
	methyl 2-([(1,2,3,5,6,7-hexahydro-s-indacen-4-yl)carbamoyl]amino)-3-(4-methyl-1H-pyrazol-1-yl)propanoate
	ethyl (2R)-2-([(2,6-bis(propan-2-yl)phenyl)carbamoyl]amino)-3-(pyridin-3-yl)propanoate
	ethyl 2-([(1,2,3,5,6,7-hexahydro-s-indacen-4-yl)carbamoyl]amino)-3-(pyrimidin-2-yl)propanoate
	methyl (2R)-2-([(1,2,3,5,6,7-hexahydro-s-indacen-4-yl)carbamoyl]amino)-3-(5-methoxypyridin-3-yl)propanoate
	ethyl 2-([(1,2,3,5,6,7-hexahydro-s-indacen-4-yl)carbamoyl]amino)-3-(3-methyl-1,2,4-oxadiazol-5-yl)propanoate
	methyl (2R)-2-([(1,2,3,5,6,7-hexahydro-s-indacen-4-yl)carbamoyl]amino)-3-(pyridazin-3-yl)propanoate
	ethyl 2-([(1,2,3,5,6,7-hexahydro-s-indacen-4-yl)carbamoyl]amino)-3-(1,2-oxazol-4-yl)propanoate

	Ethyl 2-([(1,2,3,5,6,7-hexahydro-s-indacen-4-yl)carbamoyl]amino)-3-(1,2-oxazol-3-yl)propanoate
	ethyl 2-([(1,2,3,5,6,7-hexahydro-s-indacen-4-yl)carbamoyl]amino)-3-(1,3-oxazol-2-yl)propanoate
	ethyl (2R)-2-([(6-(propan-2-yl)-2,3-dihydro-1H-inden-5-yl)carbamoyl]amino)-3-(pyridin-3-yl)propanoate
	methyl (2R)-2-([(1,2,3,5,6,7-hexahydro-s-indacen-4-yl)carbamoyl]amino)-3-(pyrimidin-5-yl)propanoate
	methyl (2R)-2-([(1,2,3,5,6,7-hexahydro-s-indacen-4-yl)carbamoyl]amino)-3-(pyrazin-2-yl)propanoate
	ethyl 2-([(1,2,3,5,6,7-hexahydro-s-indacen-4-yl)carbamoyl]amino)-3-(pyridazin-4-yl)propanoate
	ethyl (2R)-2-([(1,2,3,5,6,7-hexahydro-s-indacen-4-yl)carbamoyl]amino)-3-(pyrimidin-2-yl)propanoate
	ethyl 2-([(1,2,3,5,6,7-hexahydro-s-indacen-4-yl)carbamoyl]amino)-3-(pyrimidin-4-yl)propanoate



9. A compound of Formula (I), or a prodrug, or pharmaceutically acceptable salt thereof:

5



in which:

- 10 **R₁** is a 5 or 6 membered alkyl or aryl monocycle, having at least one group substituent comprising a (2-8C) alkyl **or** a 9 or 10 membered bicyclic partially unsaturated carbocyclic ring system, wherein said bicyclic ring system is optionally substituted by 1, 2, 3 or 4 substituents independently selected from (1-6C)alkyl, (2-6C)alkenylene, (2-6C)alkynylene, (3-8C)cycloalkyl, (1-3C)alkoxy, halo, oxo, hydroxy, cyano, amino, (1-3C)alkylamino, di-[(1-3C)alkyl]-amino, CF₃, OCF₃, S(O)₂CH₃, S(O)CH₃, S(O)₂NH₂, S(O)₂NHCH₃, S(O)₂N(CH₃)₂, NHS(O)₂CH₃ and N(CH₃)S(O)₂CH₃ **or** a 12, 13, 14, 15 or 16 membered tricyclic partially unsaturated carbocyclic ring system, wherein said tricyclic ring system is optionally substituted by 1, 2, 3 or 4 substituents independently selected from (1-6C)alkyl, (2-6C)alkenylene, (2-6C)alkynylene, (3-8C)cycloalkyl, (1-3C)alkoxy, halo, oxo, hydroxy, cyano, amino, (1-3C)alkylamino, di-[(1-3C)alkyl]-amino, CF₃, OCF₃, S(O)₂CH₃, S(O)CH₃, S(O)₂NH₂, S(O)₂NHCH₃, S(O)₂N(CH₃)₂, NHS(O)₂CH₃ and N(CH₃)S(O)₂CH₃;

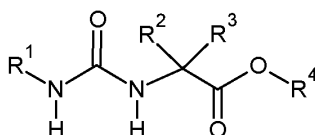
R₂ is H

- 25 **R₃** is Alkyl(C1-4)-**R₇**,

wherein **R₇** is selected from a 5 or 6 membered monocyclic aryl or non-aryl ring system comprising 1, 2 or 3 heteroatoms independently selected from oxygen, nitrogen and sulfur, or 3, 4, 5 or 6 membered monocyclic heterocyclyl ring system comprising 1 or 2 heteroatoms independently selected from oxygen, nitrogen and sulfur, wherein said **R₇** ring system is optionally substituted with 1 or more substituents independently selected from (1-6C) alkyl, alkylhydroxy, nitro, OH, COCH₃, halo, amino, cyano, an optionally N-linked 5 or 6 membered monocyclic heteroaryl ring comprising 1 or 2 heteroatoms independently selected from oxygen, nitrogen and sulfur, or an optionally N-linked 3, 4, 5 or 6 membered monocyclic heterocyclyl ring system comprising 1 heteroatom independently selected from oxygen, nitrogen and sulfur, said ring being optionally substituted with an alkyl, oxo, halo or amino group; and

R₄ is H, alkyl, monocyclic alkyl or monocyclic aryl group.

10. A compound of Formula (I), or a prodrug, or pharmaceutically acceptable salt thereof:



in which:

R₁ is a 5 or 6 membered alkyl or aryl monocycle, having at least one group substituent comprising a (2-8C) alkyl or a 9 or 10 membered bicyclic partially unsaturated carbocyclic ring system, wherein said bicyclic ring system is optionally substituted by 1, 2, 3 or 4 substituents independently selected from (1-6C)alkyl, (2-6C)alkenylene, (2-6C)alkynylene, (3-8C)cycloalkyl, (1-3C)alkoxy, halo, oxo, hydroxy, cyano, amino, (1-3C)alkylamino, di-[(1-3C)alkyl]-amino, CF₃, OCF₃, S(O)₂CH₃, S(O)CH₃, S(O)₂NH₂, S(O)₂NHCH₃, S(O)₂N(CH₃)₂, NHS(O)₂CH₃ and N(CH₃)S(O)₂CH₃ or a 12, 13, 14, 15 or 16 membered tricyclic partially unsaturated carbocyclic ring system, wherein said tricyclic ring system is optionally substituted by 1, 2, 3 or 4 substituents independently selected from (1-6C)alkyl, (2-

6C)alkenylene, (2-6C)alkynylene, (3-8C)cycloalkyl, (1-3C)alkoxy, halo, oxo, hydroxy, cyano, amino, (1-3C)alkylamino, di-[(1-3C)alkyl]-amino, CF₃, OCF₃, S(O)₂CH₃, S(O)CH₃, S(O)₂NH₂, S(O)₂NHCH₃, S(O)₂N(CH₃)₂, NHS(O)₂CH₃ and N(CH₃)S(O)₂CH₃;

5 **R₂** is H;

R₃ Alkyl(C1-4)-**R₇**,

wherein **R₇** is selected from a 5 or 6 membered monocyclic aryl or non-aryl ring system optionally comprising 1, 2 or 3 heteroatoms independently selected from oxygen, nitrogen and sulfur, **or** 3, 4, 5 or 6 membered monocyclic heterocyclyl ring system optionally comprising 1 or 2 heteroatoms independently selected from oxygen, nitrogen and sulfur or a 3, 4, 5 or 6 membered saturated or partially unsaturated carbocyclic ring system and said **R₇** ring system is substituted with 1 or more substituents independently selected from (1-6C) alkyl, alkylhydroxy, nitro, OH, COCH₃, halo, amino, cyano, an optionally N-linked 5 or 6 membered monocyclic heteroaryl ring comprising 1 or 2 heteroatoms independently selected from oxygen, nitrogen and sulfur and an optionally N-linked 3, 4, 5 or 6 membered monocyclic heterocyclyl ring system comprising 1 heteroatom independently selected from oxygen, nitrogen and sulfur, said ring being optionally substituted with an alkyl, oxo, halo or amino group; and

20

R₄ is H, alkyl, monocyclic alkyl or monocyclic aryl group.

11. A pharmaceutical composition comprising a compound as defined in any of the preceding claims or a pharmaceutically acceptable salt thereof, in a mixture with a pharmaceutically acceptable diluent or carrier.

25

12. A method of inhibiting the NLRP3 inflammasome activity *in vitro* or *in vivo*, said method comprising contacting a cell with an effective amount of a compound according to any preceding claim or a pharmaceutically acceptable salt thereof.

30

13. A method of treating a disease or disorder in which inflammasome activity is implicated in a patient in need of such treatment, said method comprising administering to

said patient a therapeutically effective amount of a compound according to any preceding claim or a pharmaceutically acceptable salt or composition thereof.

14. A method of treating an auto-inflammatory disorder, an autoimmune disorder, a neurodegenerative disease or cancer in a patient in need of such treatment, said method comprising administering to said patient a therapeutically effective amount of a compound according to any preceding claim.

15. A compound according to any preceding claim numbered 1-11 comprising a prodrug, or a pharmaceutically acceptable salt or composition thereof, or a pharmaceutical composition, for use in therapy.

16. A compound according to any preceding claim numbered 1-11, for use in the treatment of a disorder in which inflammasome activity is implicated.

17. The compound according to any of claims 1-11 for use in the treatment of a disorder, wherein the disorder is a cancer is selected from gastrointestinal cancer, skin cancer, non-small-cell lung carcinoma and colorectal adenocarcinoma.

18. The compound according to claim 17 for use in treatment of a disorder, wherein the disorder is selected from the treatment of an auto-inflammatory disorder, an autoimmune disorder, a neurodegenerative disease or cancer.

19. The compound according to any of claims 18, wherein the disorder is selected from cryopyrin-associated auto-inflammatory syndrome (CAPS) including familial cold auto-inflammatory syndrome (FCAS), Muckle-Wells syndrome (MWS), chronic infantile neurological cutaneous and articular (CINCA) syndrome, neonatal-onset multisystem inflammatory disease (NOMID), familial Mediterranean fever, nonalcoholic fatty liver disease (NAFLD), gout, rheumatoid arthritis, Crohn's disease, COPD, fibrosis, obesity, type 2 diabetes, multiple sclerosis, neuro-inflammation occurring in protein misfolding diseases, Parkinson's disease, osteoarthritis, Non-alcoholic steatohepatitis (NASH) and Alzheimer's disease.