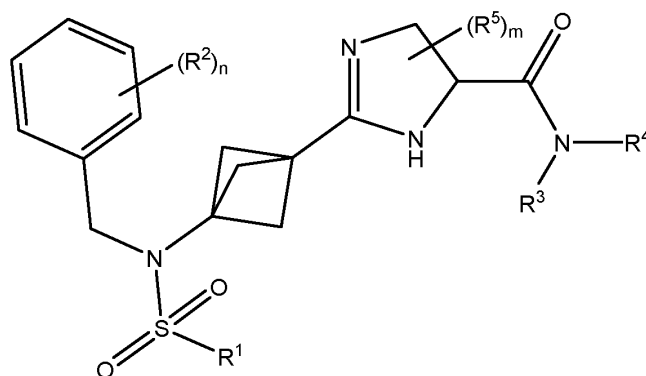


CLAIMS

1. A compound of formula (I):



(I)

or a tautomeric or a stereochemically isomeric form, a pharmaceutically acceptable salt or a solvate thereof, wherein:

R¹ represents C₁₋₆ alkyl, C₁₋₆ alkoxy, C₁₋₆ alkanol, -X-C₃₋₈ cycloalkyl, haloC₁₋₆ alkyl, aryl, heterocyclyl or heteroaryl, wherein said cycloalkyl, aryl, heterocyclyl or heteroaryl groups

may be optionally substituted by one or more (e.g. 1, 2, 3 or 4) R^a groups;

R^a represents C₁₋₆ alkyl, halogen, haloC₁₋₆ alkyl, hydroxy, cyano, nitro, oxo, CONR^xR^y or C₃₋₈ cycloalkyl;

R^x and R^y independently represent hydrogen or C₁₋₆ alkyl;

X represents a bond, -CH₂- or -(CH₂)₂-;

R² represents halogen, haloC₁₋₆ alkyl or cyano;

n represents an integer selected from 0 to 4;

R³ represents hydrogen, C₁₋₆ alkyl, -X-C₃₋₈ cycloalkyl, haloC₁₋₆ alkyl or -X-aryl,

wherein said alkyl may be optionally substituted by one or more cycloalkyl groups,

wherein said cycloalkyl may be optionally substituted by one or more C₁₋₆ alkyl, C₁₋₆ alkoxy,

haloC₁₋₆ alkyl, halogen, hydroxy or cyano groups,

wherein said haloalkyl may be optionally substituted by one or more hydroxy groups,

wherein said aryl may be optionally substituted by one or more halogen groups,

wherein R³ and R⁴ together with the nitrogen atom to which they are attached may join to form a heterocyclyl ring optionally substituted by one or more C₁₋₆ alkyl, haloC₁₋₆ alkyl, or

halogen;

R⁴ represents hydrogen, C₁₋₆ alkyl or C₃₋₈ cycloalkyl;

R⁵ represents C₁₋₆ alkyl or -X-aryl; and

m represents an integer selected from 0 to 4, such that when m represents 2, said R⁵ groups may join to form a C₃₋₈ cycloalkyl group.

2. A compound of formula (I) as defined in claim 1, wherein R¹ represents:
C₁₋₆ alkyl (such as methyl, ethyl, n-propyl, i-propyl, n-butyl, i-butyl, t-butyl, n-pentyl or i-pentyl);
- 5 C₁₋₆ alkoxy (such as propoxy);
-X-C₃₋₈ cycloalkyl (such as -(CH₂)-cyclopropyl, -(CH₂)₂-cyclopropyl, -cyclobutyl, -(CH₂)-cyclobutyl, -cyclopentyl or -cyclohexyl);
haloC₁₋₆ alkyl (such as trifluoromethyl, fluoropropyl, difluoropropyl, trifluoropropyl, fluorobutyl, difluorobutyl or trifluorobutyl);
- 10 aryl (such as phenyl);
heterocyclyl (such as pyrrolidinyl or tetrahydropyranyl); or
heteroaryl (such as furanyl, thiophenyl, pyrazolyl, pyridinyl or imidazolyl);
wherein said cycloalkyl, aryl, heterocyclyl or heteroaryl groups may be optionally substituted by one or more (e.g. 1, 2, 3 or 4) R^a groups, such as:
- 15 haloC₁₋₆ alkyl (such as trifluoromethyl, fluoropropyl, difluoropropyl, trifluoropropyl, fluorobutyl, difluorobutyl or trifluorobutyl);
aryl (such as phenyl); or
heteroaryl (such as furanyl, thiophenyl, pyrazolyl, pyridinyl or imidazolyl);
wherein said aryl or heteroaryl groups may be optionally substituted by one or more (e.g. 1,
- 20 2, 3 or 4) R^a groups, in particular:
haloC₁₋₆ alkyl (such as fluoropropyl);
aryl (such as phenyl, in particular unsubstituted phenyl); or
heteroaryl (such as pyridinyl, in particular unsubstituted pyridyl).
- 25 3. A compound of formula (I) as defined in claim 1 or claim 2, wherein R^a represents C₁₋₆ alkyl (such as methyl), halogen (such as fluorine or chlorine), haloC₁₋₆ alkyl (such as trifluoromethyl), hydroxy, cyano, nitro, oxo, CONR^xR^y (such as CONH₂) or C₃₋₈ cycloalkyl (such as cyclopropyl).
- 30 4. A compound of formula (I) as defined in any one of claims 1 to 3, wherein R² represents halogen (such as fluorine or chlorine), haloC₁₋₆ alkyl (such as difluoromethyl or trifluoromethyl) or cyano, such as halogen (in particular fluorine or chlorine).
5. A compound of formula (I) as defined in any one of claims 1 to 3, wherein n
- 35 represents an integer selected from 0 to 3, such as 1 or 2.

6. A compound of formula (I) as defined in claim 5, wherein n represents an integer selected from 0.

7. A compound of formula (I) as defined in claim 5, wherein n represents 1 and R² represents halogen (such as fluorine or chlorine), haloC₁₋₆ alkyl (such as difluoromethyl or trifluoromethyl) or cyano, such as n represents 1 and R² represents 3-fluorine, 4-fluorine, 3-chlorine, 4-chlorine, 4-difluoromethyl, 4-trifluoromethyl or 4-cyano, in particular n represents 1 and R² represents 4-chlorine.

8. A compound of formula (I) as defined in claim 5, wherein n represents 2 and R² represents halogen (such as fluorine or chlorine), haloC₁₋₆ alkyl (such as trifluoromethyl) or cyano, such as n represents 2 and R² represents: 2-fluoro, 4-chloro; 3-fluoro, 4-chloro; 3-chloro, 4-fluoro; 3-fluoro, 4-trifluoromethyl; 3-chloro, 4-trifluoromethyl; 3-cyano, 4-chloro; 3,4-difluoro; or 3,4-dichloro, in particular n represents 2 and R² represents 3-fluoro, 4-chloro.

9. A compound of formula (I) as defined in claim 5, wherein n represents 3 and R² represents halogen (such as fluorine or chlorine), such as n represents 3 and R² represents 3,5-difluoro, 4-chloro.

10. A compound of formula (I) as defined in any one of claims 1 to 9, wherein R³ represents:

hydrogen;

C₁₋₆ alkyl (such as methyl, n-propyl, i-propyl, dimethylpropyl, n-butyl or t-butyl) optionally substituted by one or more cycloalkyl groups (such as cyclopropyl);

-X-C₃₋₈ cycloalkyl (such as cyclopropyl, -CH₂-cyclopropyl, -(CH₂)₂-cyclopropyl, -cyclobutyl, -CH₂-cyclobutyl, -(CH₂)₂-cyclobutyl, -C(H)(CH₃)-cyclobutyl, cyclohexyl, -CH₂-cyclohexyl or bicyclo[1.1.1]pentanyl) optionally substituted by one or more C₁₋₆ alkyl (such as methyl), C₁₋₆ alkoxy (such as methoxy), haloC₁₋₆ alkyl (such as difluoromethyl, trifluoromethyl or trifluoroethyl), halogen (such as fluorine), hydroxy or cyano groups;

haloC₁₋₆ alkyl (such as trifluoroethyl, difluoropropyl, trifluoropropyl, pentafluoropropyl, fluorobutyl, trifluorobutyl or trifluoropentyl) optionally substituted by one or more hydroxy groups;

-X-aryl (such as -phenyl or -CH₂-phenyl) optionally substituted by one or more halogen (such as fluorine) groups;

or R³ and R⁴ together with the nitrogen atom to which they are attached join to form a heterocyclyl ring (such as azetidiny, pyrrolidiny, piperidiny, morpholinyl, azepiny, 1-azaspiro[3.3]heptyl, 5-azaspiro[2.4]heptyl, 5-azaspiro[3.4]octyl, 8-azabicyclo[3.2.1]octyl, 3-

azabicyclo[3.1.0]hexyl, octahydrocyclopenta[c]pyrrolyl, 2-azaspiro[3.3]heptyl, 3-azabicyclo[3.2.1]octyl, 6-azaspiro[3.4]octyl, 5-azaspiro[2.5]octyl or 2-oxa-6-azaspiro[3.4]octyl) optionally substituted by one or more C₁₋₆ alkyl (such as methyl), haloC₁₋₆ alkyl (such as difluoromethyl or trifluoromethyl) or halogen (such as fluorine), such as:

5 -X-C₃₋₈ cycloalkyl (such as cyclopropyl, -CH₂-cyclopropyl, -(CH₂)₂-cyclopropyl, -cyclobutyl, -CH₂-cyclobutyl, -(CH₂)₂-cyclobutyl, -C(H)(CH₃)-cyclobutyl, cyclohexyl, -CH₂-cyclohexyl or bicyclo[1.1.1]pentanyl) optionally substituted by one or more C₁₋₆ alkyl (such as methyl), C₁₋₆ alkoxy (such as methoxy), haloC₁₋₆ alkyl (such as difluoromethyl, trifluoromethyl or trifluoroethyl), halogen (such as fluorine), hydroxy or cyano groups; or

10 haloC₁₋₆ alkyl (such as trifluoroethyl, difluoropropyl, trifluoropropyl, pentafluoropropyl, fluorobutyl, trifluorobutyl or trifluoropentyl) optionally substituted by one or more hydroxy groups, in particular:

 -X-C₃₋₈ cycloalkyl (such as bicyclo[1.1.1]pentanyl, in particular unsubstituted bicyclo[1.1.1]pentanyl; or

15 haloC₁₋₆ alkyl (such as trifluoropropyl, in particular unsubstituted trifluoropropyl).

11. A compound of formula (I) as defined in any one of claims 1 to 10, wherein R⁴ represents hydrogen, C₁₋₆ alkyl (such as methyl or ethyl) or C₃₋₈ cycloalkyl (such as cyclopropyl), such as R⁴ represents hydrogen.

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12. A compound of formula (I) as defined in any one of claims 1 to 11, wherein m represents an integer selected from 0 to 3, such as 2.

13. A compound of formula (I) as defined in claim 12 wherein m represents 0.

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14. A compound of formula (I) as defined in any one of claims 1 to 12, wherein R⁵ represents C₁₋₆ alkyl (such as methyl, ethyl, n-propyl, i-propyl or i-butyl) or -X-aryl (such as -CH₂-phenyl) or m represents 2 and said two R⁵ groups join to form a C₃₋₈ cycloalkyl group (such as cyclopropyl or cyclobutyl), such as R⁵ represents C₁₋₆ alkyl (such as methyl, ethyl, 30 n-propyl, i-propyl or i-butyl), in particular R⁵ represents C₁₋₆ alkyl (such as methyl).

15. A compound of formula (I) as defined in claim 12, wherein m represents 1 and R⁵ represents C₁₋₆ alkyl (such as methyl, n-propyl, i-propyl or i-butyl) or -X-aryl (such as -CH₂-phenyl).

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16. A compound of formula (I) as defined in claim 12, wherein m represents 2 and R⁵ represents C₁₋₆ alkyl (such as methyl or ethyl) or said two R⁵ groups join to form a C₃₋₈

cycloalkyl group (such as cyclopropyl or cyclobutyl), such as m represents 2 and R⁵ represents C₁₋₆ alkyl (such as methyl or ethyl), in particular m represents 2 and R⁵ represents C₁₋₆ alkyl (such as methyl).

- 5 17. A compound of formula (I) as defined in claim 12, wherein m represents 3 and R⁵ represents C₁₋₆ alkyl (such as methyl).

18. A compound of formula (I) as defined in any one of claims 1 to 17, which is the free base of a compound of Examples 1-295, such as Example 1, Example 48 or Example 92, or
10 a pharmaceutically acceptable salt or solvate thereof.

19. A pharmaceutical composition comprising a compound of formula (I) as defined in any of claims 1 to 18.

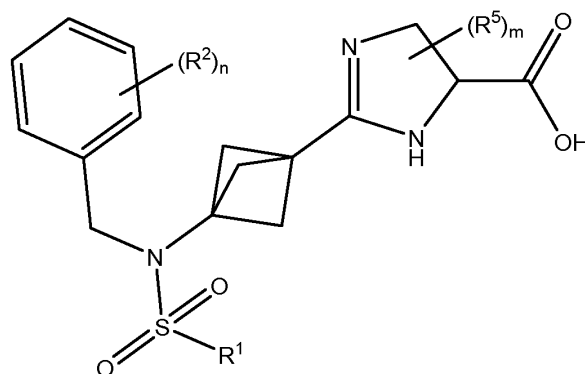
- 15 20. A pharmaceutical composition comprising a compound of formula (I) as defined in any of claims 1 to 18, in combination with one or more therapeutic agents.

21. A compound as defined in any of claims 1 to 18 for use in therapy.

- 20 22. A compound as defined in any of claims 1 to 18 for use in the prophylaxis or treatment of a disease or condition mediated by potassium channel inhibition, such as inhibition of Kv1.3, in particular autoimmune, inflammatory, cardiovascular, neuronal, auditory, renal and metabolic mediated diseases.

- 25 23. A process for preparing a compound of formula (I) as herein defined in claim 1 which comprises:

(a) reacting a compound of formula (II):



(II)

wherein R^1 , R^2 , n , R^5 and m are as defined in claim 1, with a compound of formula HNR^3R^4 ;

(b) deprotection of a protected derivative of a compound of formula (I);

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(c) interconversion of a compound of formula (I) or protected derivative thereof to a further compound of formula (I) or protected derivative thereof; and

(d) optional formation of a pharmaceutically acceptable salt of a compound of formula (I).

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