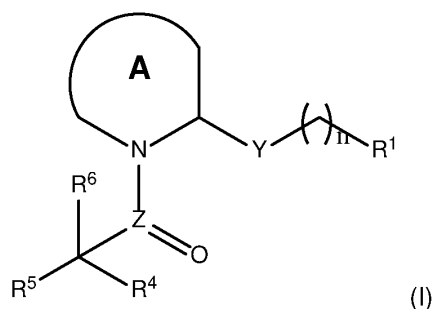


Claims

1. A method of modulating of transient receptor potential channel melastatin member 8 (TRPM8) comprising bringing the receptor into contact with a
 5 compound of formula (I), a salt or solvate thereof



wherein

n is 0 or 1;

R¹ is selected from

- 10 i) halogen,
 ii) C₆ – C₁₀ aryl,
 iii) C₅-C₁₀ mono- or bicyclic heteroaryl wherein up to 2 C-atoms are replaced by a hetero atoms independently selected from sulfur, nitrogen, and oxygen,
 iv) C₆ – C₁₀ aryl substituted with up to four substituents independently selected
 15 from the group consisting of
 halogen; OH; C≡N; NO₂; C₁-C₆ alkyl;
 C₁-C₆ alkyl comprising up to 5 halogen atoms;
 C₁-C₃ alkyl comprising up to 3 OH groups;
 C₂-C₆ alkenyl;
 20 C₁-C₆ alkoxy;
 C₁-C₆ alkoxy comprising up to 3 halogen atoms;
 C₁-C₃ alkoxy C₁-C₃ alkyl;
 C₃-C₇ cycloalkyl;
 -C(O)R¹⁰ wherein R¹⁰ is selected from C₁-C₃ alkyl;
 25 -OC(O)R¹¹ wherein R¹¹ is selected from H, and C₁-C₃ alkyl;
 -C(O)O-R¹² wherein R¹² is selected from hydrogen and C₁-C₃ alkyl;

- 5 – (CH₂)_mN(R¹³)R¹⁴ wherein m is 0 or 1, R¹³ is selected from hydrogen, C₁-C₃ alkyl, and –SO₂R¹⁵ wherein R¹⁵ is C₁-C₃ alkyl, and R¹⁴ is selected from hydrogen, C₁-C₃ alkyl, and –SO₂R¹⁶ wherein R¹⁶ is C₁-C₃ alkyl, or wherein R¹³ and R¹⁴ form together with the N atom to which they are attached morpholine, thiomorpholine, or 1,1-dioxothiomorpholine;
- 10 –SR¹⁷ wherein R¹⁷ is selected from hydrogen and C₁-C₃ alkyl; and
 –S(O)₂R¹⁸ wherein R¹⁸ is selected from hydrogen and C₁-C₃ alkyl;
- with the proviso that when the aryl ring is substituted with two or more substituents, two substituents may form a cyclic ring together with the carbon atoms to which they are attached,
- and
- 15 v) C₅-C₁₀ mono- or bicyclic heteroaryl wherein up to 2 C-atoms are replaced by a hetero atoms independently selected from sulfur, nitrogen, and oxygen, substituted with up to four substituents selected from the group consisting of
- 20 halogen; OH (hydroxyl); C≡N (cyano); NO₂ (nitro); C₁-C₆ alky;
 C₁-C₆ alky comprising up to 5 halogen atoms;
 C₂-C₆ alkenyl;
 C₁-C₆ alkoxy;
 C₁-C₆ alkoxy comprising up to 3 halogen atoms;
 C₁-C₃ alkoxy C₁-C₃ alkyl;
 C₃-C₇ cycloalkyl;
 –C(O)R²⁰ wherein R²⁰ is selected from C₁-C₃ alkyl;
 25 –OC(O)R²¹ wherein R²¹ is selected from H, and C₁-C₃ alkyl;
 –C(O)O-R²² wherein R²² is selected from hydrogen and C₁-C₃ alkyl;
 –(CH₂)_mN(R²³)R²⁴ wherein m is 0 or 1, R²³ is selected from hydrogen, C₁-C₃ alkyl, and –SO₂R²⁵ wherein R²⁵ is C₁-C₃ alkyl, and R²⁴ is selected from hydrogen, C₁-C₃ alkyl, and –SO₂R²⁶ wherein R²⁶ is C₁-C₃ alkyl, or wherein R²³ and R²⁴ form together with the N atom to which they are attached morpholine, thiomorpholine, or 1,1-dioxothiomorpholine;
- 30 –SR²⁷ wherein R²⁷ is selected from hydrogen and C₁-C₃ alkyl; and
 –S(O)₂R²⁸ wherein R²⁸ is selected from hydrogen and C₁-C₃ alkyl;

Y is a monocyclic or bicyclic, unsaturated or aromatic heterocyclic ring comprising one, two, three or four heteroatoms independently selected from nitrogen, sulfur and oxygen, wherein the ring is optionally mono-, di-, or tri-substituted with a group selected from halogen, methyl, ethyl, $-N(R^{40})R^{41}$, $-CON(R^{40})R^{41}$, $-[CR^{40}R^{41}]_p-C(O)OR^{40}$, $-C(O)R^{40}$, and $-SO_2N(R^{40})R^{41}$ wherein R^{40} and R^{41} are independently selected from hydrogen and C_1 - C_4 alkyl, and p is 0, 1, or 2;

A is a 5 to 7 membered heterocyclic ring optionally comprising one additional hetero atom selected from oxygen and sulfur, wherein the heterocyclic ring A is optionally substituted by one or two groups selected from $-OH$ and $=O$;

Z is either C, S or S(O); and

R^4 , R^5 and R^6 form together with the carbon atom to which they are attached a hydrocarbon group optionally comprising up to five hetero atoms selected from O, N, S, and F.

2. A method according to claim 1 wherein the compound of formula (I) is selected from the group consisting of (2-(4-phenyl-1H-imidazol-2-yl)piperidin-1-yl)(1,2,3-thiadiazol-5-yl)methanone, (2-(4-phenyl-1H-imidazol-2-yl)piperidin-1-yl)(thietan-3-yl)methanone, (2,2-dimethylcyclopropyl)(2-(4-phenyl-1H-imidazol-2-yl)piperidin-1-yl)methanone, (2-ethoxycyclopropyl)(2-(4-phenyl-1H-imidazol-2-yl)piperidin-1-yl)methanone, (2-methoxycyclopropyl)(2-(4-phenyl-1H-imidazol-2-yl)piperidin-1-yl)methanone, (2-methylcyclopropyl)(2-(4-phenyl-1H-imidazol-2-yl)piperidin-1-yl)methanone, (2S)-2-methyl-1-(2-(5-(p-tolyl)-1H-imidazol-2-yl)piperidin-1-yl)butan-1-one, (5-methyltetrahydrofuran-3-yl)(2-(4-phenyl-1H-imidazol-2-yl)piperidin-1-yl)methanone, (E)-1-(2-(5-(3,4-difluorophenyl)-1H-imidazol-2-yl)piperidin-1-yl)-2-methylbut-2-en-1-one, (E)-2-methyl-1-(2-(5-(p-tolyl)-1H-imidazol-2-yl)piperidin-1-yl)but-2-en-1-one, (E)-2-methyl-1-(2-(5-(p-tolyl)-1H-imidazol-2-yl)piperidin-1-yl)pent-3-en-1-one, (R)-2-(methylthio)-1-((R)-2-(5-(p-tolyl)-1H-imidazol-2-yl)piperidin-1-yl)propan-1-one, (S)-2-(methylthio)-1-((R)-2-(5-(p-tolyl)-1H-imidazol-2-yl)piperidin-1-yl)propan-1-one, (S)-2-(methylthio)-1-((S)-2-(5-(p-tolyl)-1H-imidazol-2-yl)piperidin-1-yl)propan-1-one, (S)-2-methyl-1-((R)-2-(5-(p-tolyl)-1H-imidazol-2-yl)piperidin-1-yl)butan-1-one, (tetrahydrofuran-3-yl)(2-(5-(p-tolyl)-1H-imidazol-2-yl)piperidin-1-yl)methanone, 1-

(2-(1H-benzo[d]imidazol-2-yl)piperidin-1-yl)-2-(methylthio)propan-1-one, 1-(2-(4-(1-methyl-1H-pyrazol-4-yl)-1H-imidazol-2-yl)piperidin-1-yl)-2-(methylthio)propan-1-one, 1-(2-(4-(2,2-difluorobenzo[d][1,3]dioxol-5-yl)-1H-imidazol-2-yl)piperidin-1-yl)-2-(methylthio)propan-1-one, 1-(2-(4-(2,3-dihydrobenzofuran-5-yl)-1H-imidazol-2-yl)piperidin-1-yl)-2-(methylthio)propan-1-one, 1-(2-(4-(2,3-dihydrobenzofuran-6-yl)-1H-imidazol-2-yl)piperidin-1-yl)-2-(methylthio)propan-1-one, 1-(2-(4-(2,5-dimethylphenyl)-1H-imidazol-2-yl)piperidin-1-yl)-2-(methylthio)propan-1-one, 1-(2-(4-(2-chlorophenyl)-1H-imidazol-2-yl)piperidin-1-yl)-2-(methylthio)propan-1-one, 1-(2-(4-(2-cyclopropyloxazol-5-yl)-1H-imidazol-2-yl)piperidin-1-yl)-2-(methylthio)propan-1-one, 1-(2-(4-(2-fluorophenyl)-1H-imidazol-2-yl)piperidin-1-yl)-2-(methylthio)propan-1-one, 1-(2-(4-(2-hydroxyphenyl)-1H-imidazol-2-yl)piperidin-1-yl)-2-(methylthio)propan-1-one, 1-(2-(4-(3-((dimethylamino)methyl)phenyl)-1H-imidazol-2-yl)piperidin-1-yl)-2-(methylthio)propan-1-one, 1-(2-(4-(3,5-difluorophenyl)-1H-imidazol-2-yl)piperidin-1-yl)-2-(methylthio)propan-1-one, 1-(2-(4-(3,5-dimethylisoxazol-4-yl)-1H-imidazol-2-yl)piperidin-1-yl)-2-(methylthio)propan-1-one, 1-(2-(4-(3-chloro-4-methylphenyl)-1H-imidazol-2-yl)piperidin-1-yl)-2-(methylthio)propan-1-one, 1-(2-(4-(3-methylfuran-2-yl)-1H-imidazol-2-yl)piperidin-1-yl)-2-(methylthio)propan-1-one, 1-(2-(4-(4-((1,1-dioxidothiomorpholino)methyl)phenyl)-1H-imidazol-2-yl)piperidin-1-yl)-2-(methylthio)propan-1-one, 1-(2-(4-(4-(1-hydroxyethyl)phenyl)-1H-imidazol-2-yl)piperidin-1-yl)-2-(methylthio)propan-1-one, 1-(2-(4-(4-(difluoromethoxy)-3-fluorophenyl)-1H-imidazol-2-yl)piperidin-1-yl)-2-(methylthio)propan-1-one, 1-(2-(4-(4-(difluoromethyl)thiophen-3-yl)-1H-imidazol-2-yl)piperidin-1-yl)-2-(methylthio)propan-1-one, 1-(2-(4-(4-(methylsulfonyl)phenyl)-1H-imidazol-2-yl)piperidin-1-yl)-2-(methylthio)propan-1-one, 1-(2-(4-(4-(tert-butyl)phenyl)-1H-imidazol-2-yl)piperidin-1-yl)-2-(methylthio)propan-1-one, 1-(2-(4-(4-cyclobutylphenyl)-1H-imidazol-2-yl)piperidin-1-yl)-2-(methylthio)propan-1-one, 1-(2-(4-(4-cyclopropyl-2-fluorophenyl)-1H-imidazol-2-yl)piperidin-1-yl)-2-(methylthio)propan-1-one, 1-(2-(4-(4-fluorophenyl)-1H-imidazol-2-yl)piperidin-1-yl)-2-(methylthio)propan-1-one, 1-(2-(4-(4-hydroxyphenyl)-1H-imidazol-2-yl)piperidin-1-yl)-2-(methylthio)propan-1-one, 1-(2-(4-(4-isopropylphenyl)-1H-imidazol-2-yl)piperidin-1-yl)-2-(methylthio)propan-1-one, 1-(2-(4-(4-methyl-3-(trifluoromethyl)phenyl)-1H-imidazol-2-yl)piperidin-1-yl)-2-(methylthio)propan-1-one, 1-(2-(4-(5-

((dimethylamino)methyl)thiophen-2-yl)-1H-imidazol-2-yl)piperidin-1-yl)-2-(methylthio)propan-1-one, 1-(2-(4-(5-methylfuran-2-yl)-1H-imidazol-2-yl)piperidin-1-yl)-2-(methylthio)propan-1-one, 1-(2-(4-(5-methylpyridin-3-yl)-1H-imidazol-2-yl)piperidin-1-yl)-2-(methylthio)propan-1-one, 1-(2-(4-(6-methylpyridin-3-yl)-1H-imidazol-2-yl)piperidin-1-yl)-2-(methylthio)propan-1-one, 1-(2-(4-(benzo[b]thiophen-6-yl)-1H-imidazol-2-yl)piperidin-1-yl)-2-(methylthio)propan-1-one, 1-(2-(4-methyl-5-phenyl-1H-imidazol-2-yl)piperidin-1-yl)-2-(methylthio)propan-1-one, 1-(2-(4-phenyl-1H-imidazol-2-yl)piperidin-1-yl)-2-((trifluoromethyl)thio)ethan-1-one, 1-(2-(4-phenyl-1H-imidazol-2-yl)piperidin-1-yl)butan-1-one, 1-(2-(4-phenyl-1H-imidazol-2-yl)piperidin-1-yl)hexa-3,5-dien-1-one, 1-(2-(4-phenyl-1H-imidazol-2-yl)piperidin-1-yl)pent-4-en-1-one, 1-(2-(4-phenyl-1H-imidazol-2-yl)piperidin-1-yl)propan-1-one, 1-(2-(5-(2,3-difluorophenyl)-1H-imidazol-2-yl)piperidin-1-yl)-2-(methylthio)propan-1-one, 1-(2-(5-(2,4-difluorophenyl)-1H-imidazol-2-yl)piperidin-1-yl)-2-(methylthio)propan-1-one, 1-(2-(5-(2,5-difluorophenyl)-1H-imidazol-2-yl)piperidin-1-yl)-2-(methylthio)propan-1-one, 1-(2-(5-(2-fluoro-4-methoxyphenyl)-1H-imidazol-2-yl)piperidin-1-yl)-2-(methylthio)propan-1-one, 1-(2-(5-(2-fluoro-4-methylphenyl)-1H-imidazol-2-yl)piperidin-1-yl)-2-(methylthio)propan-1-one, 1-(2-(5-(2-methoxypyrimidin-5-yl)-1H-imidazol-2-yl)piperidin-1-yl)-2-(methylthio)propan-1-one, 1-(2-(5-(3-(methylamino)phenyl)-1H-imidazol-2-yl)piperidin-1-yl)-2-(methylthio)propan-1-one, 1-(2-(5-(3,4-difluorophenyl)-1H-imidazol-2-yl)piperidin-1-yl)-2-(methylthio)propan-1-one, 1-(2-(5-(3,4-difluorophenyl)-1H-imidazol-2-yl)piperidin-1-yl)-2-methylbut-3-en-1-one, 1-(2-(5-(3,4-dimethoxyphenyl)-1H-imidazol-2-yl)piperidin-1-yl)-2-(methylthio)propan-1-one, 1-(2-(5-(3,4-dimethylphenyl)-1H-imidazol-2-yl)piperidin-1-yl)-2-(methylthio)propan-1-one, 1-(2-(5-(3-fluoro-4-(methoxymethyl)phenyl)-1H-imidazol-2-yl)piperidin-1-yl)-2-(methylthio)propan-1-one, 1-(2-(5-(3-fluoro-4-methylphenyl)-1H-imidazol-2-yl)piperidin-1-yl)-2-(methylthio)propan-1-one, 1-(2-(5-(3-fluorophenyl)-1H-imidazol-2-yl)piperidin-1-yl)-2-(methylthio)propan-1-one, 1-(2-(5-(3-methoxyisothiazol-4-yl)-1H-imidazol-2-yl)piperidin-1-yl)-2-(methylthio)propan-1-one, 1-(2-(5-(3-methoxyphenyl)-1H-imidazol-2-yl)piperidin-1-yl)-2-(methylthio)propan-1-one, 1-(2-(5-(4-((methylamino)methyl)phenyl)-1H-imidazol-2-yl)piperidin-1-yl)-2-(methylthio)propan-1-one, 1-(2-(5-(4-(2-methoxyethyl)phenyl)-1H-imidazol-2-yl)piperidin-1-yl)-2-(methylthio)propan-1-

one, 1-(2-(5-(4-(aminomethyl)phenyl)-1H-imidazol-2-yl)piperidin-1-yl)-2-(methylthio)propan-1-one, 1-(2-(5-(4-(dimethylamino)phenyl)-1H-imidazol-2-yl)piperidin-1-yl)-2-(methylthio)propan-1-one, 1-(2-(5-(4-(hydroxymethyl)phenyl)-1H-imidazol-2-yl)piperidin-1-yl)-2-(methylthio)propan-1-one, 1-(2-(5-(4-acetylphenyl)-1H-imidazol-2-yl)piperidin-1-yl)-2-(methylthio)propan-1-one, 1-(2-(5-(4-aminophenyl)-1H-imidazol-2-yl)piperidin-1-yl)-2-(methylthio)propan-1-one, 1-(2-(5-(4-chloro-3-fluorophenyl)-1H-imidazol-2-yl)piperidin-1-yl)-2-(methylthio)propan-1-one, 1-(2-(5-(4-chlorophenyl)-1H-imidazol-2-yl)piperidin-1-yl)-2-(methylthio)propan-1-one, 1-(2-(5-(4-ethylphenyl)-1H-imidazol-2-yl)piperidin-1-yl)-2-(methylthio)propan-1-one, 1-(2-(5-(4-fluorophenyl)-4H-1,2,4-triazol-3-yl)piperidin-1-yl)-2-(methylthio)propan-1-one, 1-(2-(5-(4-methoxy-2-methylphenyl)-1H-imidazol-2-yl)piperidin-1-yl)-2-(methylthio)propan-1-one, 1-(2-(5-(4-methoxyphenyl)-1H-imidazol-2-yl)piperidin-1-yl)-2-(methylthio)propan-1-one, 1-(2-(5-(4-methyl-6-(methylthio)pyridin-3-yl)-1H-imidazol-2-yl)piperidin-1-yl)-2-(methylthio)propan-1-one, 1-(2-(5-(5-(methoxymethyl)thiophen-3-yl)-1H-imidazol-2-yl)piperidin-1-yl)-2-(methylthio)propan-1-one, 1-(2-(5-(6-methoxypyridin-3-yl)-1H-imidazol-2-yl)piperidin-1-yl)-2-(methylthio)propan-1-one, 1-(2-(5-(benzo[d][1,3]dioxol-5-yl)-1H-imidazol-2-yl)piperidin-1-yl)-2-(methylthio)propan-1-one, 1-(2-(5-(p-tolyl)-1H-imidazol-2-yl)piperidin-1-yl)propan-1-one, 1-(2-(5-benzyl-1H-imidazol-2-yl)piperidin-1-yl)-2-(methylthio)propan-1-one, 1-(2-(5-bromo-1H-imidazol-2-yl)piperidin-1-yl)-2-(methylthio)propan-1-one, 2-(2-(1-(2-(methylthio)propanoyl)piperidin-2-yl)-1H-imidazol-5-yl)benzonitrile, 2-(2-(4-phenyl-1H-imidazol-2-yl)piperidine-1-carbonyl)cyclopropane-1-carbonitrile, 2-(5-methylfuran-2-yl)-1-(2-(4-phenyl-1H-imidazol-2-yl)piperidin-1-yl)propan-1-one, 2-(allylthio)-1-(2-(5-(p-tolyl)-1H-imidazol-2-yl)piperidin-1-yl)propan-1-one, 2-(dimethylamino)-1-(2-(4-phenyl-1H-imidazol-2-yl)piperidin-1-yl)butan-1-one, 2-(dimethylamino)-1-(2-(4-phenyl-1H-imidazol-2-yl)piperidin-1-yl)propan-1-one, 2-(ethylthio)-1-(2-(5-(p-tolyl)-1H-imidazol-2-yl)piperidin-1-yl)propan-1-one, 2-(furan-2-yl)-1-(2-(4-phenyl-1H-imidazol-2-yl)piperidin-1-yl)ethan-1-one, 2-(furan-2-yl)-1-(2-(4-phenyl-1H-imidazol-2-yl)piperidin-1-yl)propan-1-one, 2-(furan-3-yl)-1-(2-(4-phenyl-1H-imidazol-2-yl)piperidin-1-yl)ethan-1-one, 2-(furan-3-yl)-1-(2-(5-(p-tolyl)-1H-imidazol-2-yl)piperidin-1-yl)propan-1-one, 2-(methylamino)-N-(4-(2-(1-(2-(methylthio)propanoyl)piperidin-2-yl)-1H-imidazol-5-yl)phenyl)acetamide, 2-

(methylsulfinyl)-1-(2-(5-(p-tolyl)-1H-imidazol-2-yl)piperidin-1-yl)propan-1-one, 2-(methylsulfonyl)-1-(2-(4-phenyl-1H-imidazol-2-yl)piperidin-1-yl)ethan-1-one, 2-(methylsulfonyl)-1-(2-(4-phenyl-1H-imidazol-2-yl)piperidin-1-yl)propan-1-one, 2-(methylthio)-1-(2-(2-(p-tolyl)-2H-tetrazol-5-yl)piperidin-1-yl)propan-1-one, 2-

5 (methylthio)-1-(2-(3-phenyl-1,2,4-oxadiazol-5-yl)piperidin-1-yl)propan-1-one, 2-(methylthio)-1-(2-(4-(1-(trifluoromethyl)-1H-pyrazol-4-yl)-1H-imidazol-2-yl)piperidin-1-yl)propan-1-one, 2-(methylthio)-1-(2-(4-(4-(morpholinomethyl)phenyl)-1H-imidazol-2-yl)piperidin-1-yl)propan-1-one, 2-

10 (methylthio)-1-(2-(4-(5-(trifluoromethyl)furan-2-yl)-1H-imidazol-2-yl)piperidin-1-yl)propan-1-one, 2-(methylthio)-1-(2-(4-(5-(trifluoromethyl)thiophen-2-yl)-1H-imidazol-2-yl)piperidin-1-yl)propan-1-one, 2-(methylthio)-1-(2-(4-(5-methylthiophen-3-yl)-1H-imidazol-2-yl)piperidin-1-yl)propan-1-one, 2-

15 (methylthio)-1-(2-(4-(m-tolyl)-1H-imidazol-2-yl)piperidin-1-yl)propan-1-one, 2-(methylthio)-1-(2-(4-(o-tolyl)-1H-imidazol-2-yl)piperidin-1-yl)propan-1-one, 2-(methylthio)-1-(2-(4-(pyridin-3-yl)-1H-imidazol-2-yl)piperidin-1-yl)propan-1-one, 2-(methylthio)-1-(2-(4-(pyridin-4-yl)-1H-imidazol-2-yl)piperidin-1-yl)propan-1-one, 2-(methylthio)-1-(2-(4-(pyrimidin-5-yl)-1H-imidazol-2-yl)piperidin-1-yl)propan-1-

20 one, 2-(methylthio)-1-(2-(4-(quinoxalin-6-yl)-1H-imidazol-2-yl)piperidin-1-yl)propan-1-one, 2-(methylthio)-1-(2-(4-(thiophen-3-yl)-1H-imidazol-2-yl)piperidin-1-yl)propan-1-one, 2-(methylthio)-1-(2-(4-phenyl-1H-imidazol-2-yl)piperidin-1-yl)ethan-1-one, 2-(methylthio)-1-(2-(5-(2-(trifluoromethyl)phenyl)-1H-imidazol-2-yl)piperidin-1-yl)propan-1-one, 2-(methylthio)-1-(2-(5-(2,3,4-trifluorophenyl)-1H-imidazol-2-yl)piperidin-1-yl)propan-1-one, 2-(methylthio)-1-

25 (2-(5-(2,4,5-trifluorophenyl)-1H-imidazol-2-yl)piperidin-1-yl)propan-1-one, 2-(methylthio)-1-(2-(5-(3-(trifluoromethyl)phenyl)-1H-imidazol-2-yl)piperidin-1-yl)propan-1-one, 2-(methylthio)-1-(2-(5-(4-(trifluoromethoxy)phenyl)-1H-imidazol-2-yl)piperidin-1-yl)propan-1-one, 2-(methylthio)-1-(2-(5-(4-(trifluoromethyl)phenyl)-1H-imidazol-2-yl)piperidin-1-yl)propan-1-one, 2-

30 (methylthio)-1-(2-(5-(4-propylphenyl)-1H-imidazol-2-yl)piperidin-1-yl)propan-1-one, 2-(methylthio)-1-(2-(5-(4-vinylphenyl)-1H-imidazol-2-yl)piperidin-1-yl)propan-1-one, 2-(methylthio)-1-(2-(5-(5-methylthiophen-2-yl)-1H-imidazol-2-yl)piperidin-1-yl)propan-1-one, 2-(methylthio)-1-(2-(5-(p-tolyl)-1,3,4-oxadiazol-2-yl)piperidin-1-yl)propan-1-one, 2-(methylthio)-1-(2-(5-(p-tolyl)-1H-imidazol-2-yl)azepan-1-yl)propan-1-one, 2-(methylthio)-1-(2-(5-(p-tolyl)-1H-imidazol-2-

- yl)piperidin-1-yl)propan-1-one, 2-(methylthio)-1-(2-(5-(p-tolyl)-4H-1,2,4-triazol-3-yl)piperidin-1-yl)propan-1-one, 2-(methylthio)-1-(2-(5-(p-tolyl)isoxazol-3-yl)piperidin-1-yl)propan-1-one, 2-(methylthio)-1-(2-(5-(p-tolyl)oxazol-2-yl)piperidin-1-yl)propan-1-one, 2-(methylthio)-1-(2-(5-(p-tolyl)thiazol-2-yl)piperidin-1-yl)propan-1-one, 2-(methylthio)-1-(2-(5-phenyl-1H-imidazol-2-yl)piperidin-1-yl)propan-1-one, 2-(methylthio)-1-(2-(5-phenyl-1H-imidazol-2-yl)pyrrolidin-1-yl)propan-1-one, 2-(methylthio)-1-(2-(5-phenyl-4H-1,2,4-triazol-3-yl)piperidin-1-yl)propan-1-one, 2-(methylthio)-1-(2-(5-phenyloxazol-2-yl)piperidin-1-yl)propan-1-one, 2-(methylthio)-1-(4-(5-(p-tolyl)-1H-imidazol-2-yl)thiazolidin-3-yl)propan-1-one, 2,2,3-trimethyl-1-(2-(5-(p-tolyl)-1H-imidazol-2-yl)piperidin-1-yl)but-3-en-1-one, 2,2,3-trimethyl-1-(2-(5-(p-tolyl)-1H-imidazol-2-yl)piperidin-1-yl)butan-1-one, 2,2-dimethyl-1-(2-(5-(p-tolyl)-1H-imidazol-2-yl)piperidin-1-yl)but-3-en-1-one, 2,2-dimethyl-1-(2-(5-(p-tolyl)-1H-imidazol-2-yl)piperidin-1-yl)butan-1-one, 2,3-dimethoxy-1-(2-(4-phenyl-1H-imidazol-2-yl)piperidin-1-yl)propan-1-one, 2,3-dimethyl-1-(2-(4-phenyl-1H-imidazol-2-yl)piperidin-1-yl)butan-1-one, 2,5-difluoro-4-(2-(1-(2-(methylthio)propanoyl)piperidin-2-yl)-1H-imidazol-4-yl)benzonitrile, 2-amino-1-(2-(5-(p-tolyl)-1H-imidazol-2-yl)piperidin-1-yl)propan-1-one, 2-cyclobutyl-1-(2-(4-phenyl-1H-imidazol-2-yl)piperidin-1-yl)propan-1-one, 2-cyclopentyl-2-ethoxy-1-(2-(4-phenyl-1H-imidazol-2-yl)piperidin-1-yl)ethan-1-one, 2-cyclopropyl-1-(2-(4-phenyl-1H-imidazol-2-yl)piperidin-1-yl)ethan-1-one, 2-cyclopropyl-1-(2-(4-phenyl-1H-imidazol-2-yl)piperidin-1-yl)propan-1-one, 2-cyclopropyl-2-methoxy-1-(2-(4-phenyl-1H-imidazol-2-yl)piperidin-1-yl)ethan-1-one, 2-ethoxy-1-(2-(5-(3-fluorophenyl)-1H-imidazol-2-yl)piperidin-1-yl)propan-1-one, 2-ethyl-1-(2-(4-phenyl-1H-imidazol-2-yl)piperidin-1-yl)but-2-en-1-one, 2-ethyl-1-(2-(4-phenyl-1H-imidazol-2-yl)piperidin-1-yl)butan-1-one, 2-fluoro-4-(2-(1-(2-(methylthio)propanoyl)piperidin-2-yl)-1H-imidazol-5-yl)benzonitrile, 2-mercapto-1-(2-(5-(p-tolyl)-1H-imidazol-2-yl)piperidin-1-yl)propan-1-one, 2-methoxy-1-(2-(4-phenyl-1H-imidazol-2-yl)piperidin-1-yl)butan-1-one, 2-methoxy-1-(2-(4-phenyl-1H-imidazol-2-yl)piperidin-1-yl)propan-1-one, 2-methoxy-1-(2-(5-(p-tolyl)-1H-imidazol-2-yl)piperidin-1-yl)propan-1-one, 2-methyl-1-(2-(4-phenyl-1H-imidazol-2-yl)piperidin-1-yl)butan-1-one, 2-methyl-1-(2-(4-phenyl-1H-imidazol-2-yl)piperidin-1-yl)propan-1-one, 2-methyl-1-(2-(5-(p-tolyl)-1H-imidazol-2-yl)piperidin-1-yl)but-3-en-1-one, 2-methyl-1-(2-(5-(p-tolyl)-1H-imidazol-2-

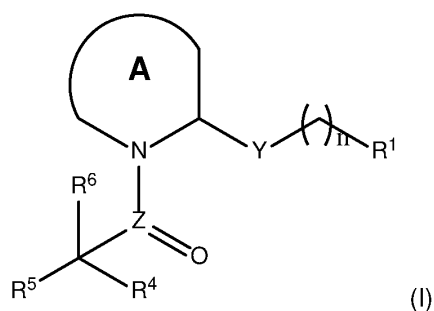
yl)piperidin-1-yl)butan-1-one, 2-methyl-1-(2-(5-(p-tolyl)-1H-imidazol-2-yl)piperidin-1-yl)butane-1,3-dione, 2-methyl-1-(2-(5-(p-tolyl)-1H-imidazol-2-yl)piperidin-1-yl)pentan-1-one, 2-methyl-1-(2-(5-(p-tolyl)-1H-imidazol-2-yl)piperidin-1-yl)prop-2-en-1-one, 2-methyl-1-(2-(5-(p-tolyl)-1H-imidazol-2-yl)piperidin-1-yl)propan-1-one, 2-methyl-2-(methylthio)-1-(2-(5-(p-tolyl)-1H-imidazol-2-yl)piperidin-1-yl)propan-1-one, 2-methyl-3-(methylthio)-1-(2-(4-phenyl-1H-imidazol-2-yl)piperidin-1-yl)propan-1-one, 2-methylene-1-(2-(5-(p-tolyl)-1H-imidazol-2-yl)piperidin-1-yl)butan-1-one, 3-(2-(1-(2-(methylthio)propanoyl)piperidin-2-yl)-1H-imidazol-4-yl)benzonitrile, 3,3,3-trifluoro-2-methyl-1-(2-(4-phenyl-1H-imidazol-2-yl)piperidin-1-yl)propan-1-one, 3,3,4,4,4-pentafluoro-1-(2-(4-phenyl-1H-imidazol-2-yl)piperidin-1-yl)butan-1-one, 3,3-difluoro-1-(2-(4-phenyl-1H-imidazol-2-yl)piperidin-1-yl)butan-1-one, 3-fluoro-4-(2-(1-(2-(methylthio)propanoyl)piperidin-2-yl)-1H-imidazol-5-yl)benzonitrile, 3-methyl-1-(2-(4-phenyl-1H-imidazol-2-yl)piperidin-1-yl)but-2-en-1-one, 3-methyl-1-(2-(4-phenyl-1H-imidazol-2-yl)piperidin-1-yl)butan-1-one, 4-(2-(1-(2-(methylthio)propanoyl)piperidin-2-yl)-1H-imidazol-4-yl)benzonitrile, 4-(2-(1-(2-(methylthio)propanoyl)piperidin-2-yl)-1H-imidazol-5-yl)benzaldehyde, 4,4,4-trifluoro-2-methyl-1-(2-(4-phenyl-1H-imidazol-2-yl)piperidin-1-yl)butan-1-one, bicyclo[1.1.1]pentan-1-yl(2-(4-phenyl-1H-imidazol-2-yl)piperidin-1-yl)methanone, cyclobutyl(2-(5-(3-fluorophenyl)-1H-imidazol-2-yl)piperidin-1-yl)methanone, cyclopentyl(2-(4-phenyl-1H-imidazol-2-yl)piperidin-1-yl)methanone, cyclopropyl(2-(4-phenyl-1H-imidazol-2-yl)piperidin-1-yl)methanone, methyl 4-(2-(1-(2-(methylthio)propanoyl)piperidin-2-yl)-1H-imidazol-5-yl)benzoate, N-(2-hydroxyethyl)-4-(2-(1-(2-(methylthio)propanoyl)piperidin-2-yl)-1H-imidazol-4-yl)benzenesulfonamide, 2-(methylthio)-1-(2-(5-(3-nitrophenyl)-1H-imidazol-2-yl)piperidin-1-yl)propan-1-one, N-(4-(2-(1-(2-(methylthio)propanoyl)piperidin-2-yl)-1H-imidazol-4-yl)phenyl)methane-sulfonamide, 2-(methylthio)-1-(2-(5-(4-nitrophenyl)-1H-imidazol-2-yl)piperidin-1-yl)propan-1-one, 1-(sec-butylsulfinyl)-2-(5-(p-tolyl)-1H-imidazol-2-yl)piperidine, 1-(sec-butylsulfonyl)-2-(5-(p-tolyl)-1H-imidazol-2-yl)piperidine, 1-(isopropylsulfinyl)-2-(5-(p-tolyl)-1H-imidazol-2-yl)piperidine, 1-(isopropylsulfonyl)-2-(5-(p-tolyl)-1H-imidazol-2-yl)piperidine, 1-((1-(methylthio)ethyl)sulfinyl)-2-(5-(p-tolyl)-1H-imidazol-2-yl)piperidine, 1-((1-(methylthio)ethyl)sulfonyl)-2-(5-(p-tolyl)-1H-imidazol-2-yl)piperidine, 1-((2-(methylthio)propan-2-yl)sulfinyl)-2-(5-(p-tolyl)-1H-imidazol-2-yl)piperidine, 1-((2-

(methylthio)propan-2-yl)sulfonyl)-2-(5-(p-tolyl)-1H-imidazol-2-yl)piperidine, 1-(but-3-en-2-ylsulfinyl)-2-(5-(p-tolyl)-1H-imidazol-2-yl)piperidine, 1-(but-3-en-2-ylsulfonyl)-2-(5-(p-tolyl)-1H-imidazol-2-yl)piperidine, 1-(pent-3-en-2-ylsulfinyl)-2-(5-(p-tolyl)-1H-imidazol-2-yl)piperidine, 1-(pent-3-en-2-ylsulfonyl)-2-(5-(p-tolyl)-1H-imidazol-2-yl)piperidine, 1-((2-methylbut-3-en-2-yl)sulfinyl)-2-(5-(p-tolyl)-1H-imidazol-2-yl)piperidine, 1-((2-methylbut-3-en-2-yl)sulfonyl)-2-(5-(p-tolyl)-1H-imidazol-2-yl)piperidine, 1-(2-(5-(4-(hydroxymethyl)phenyl)-1H-imidazol-2-yl)piperidin-1-yl)-2-methylbutan-1-one, 2-(methylsulfonyl)-1-(2-(5-(p-tolyl)-1H-imidazol-2-yl)piperidin-1-yl)propan-1-one, 1-(4-hydroxy-2-(5-(p-tolyl)-1H-imidazol-2-yl)piperidin-1-yl)-2-(methylthio)propan-1-one, 1-(5-hydroxy-2-(5-(p-tolyl)-1H-imidazol-2-yl)piperidin-1-yl)-2-(methylthio)propan-1-one, 1-(4-hydroxy-2-(5-(p-tolyl)-1H-imidazol-2-yl)piperidin-1-yl)-2-methylbutan-1-one, 1-(5-hydroxy-2-(5-(p-tolyl)-1H-imidazol-2-yl)piperidin-1-yl)-2-methylbutan-1-one, 1-(2-(5-(4-(hydroxymethyl)phenyl)-1H-imidazol-2-yl)piperidin-1-yl)-2-(methylsulfonyl)propan-1-one, 1-(4-hydroxy-2-(5-(p-tolyl)-1H-imidazol-2-yl)piperidin-1-yl)-2-(methylsulfonyl)propan-1-one, 1-(5-hydroxy-2-(5-(p-tolyl)-1H-imidazol-2-yl)piperidin-1-yl)-2-(methylsulfonyl)propan-1-one, 1-(2-hydroxy-6-(5-(p-tolyl)-1H-imidazol-2-yl)piperidin-1-yl)-2-(methylthio)propan-1-one, 1-(2-hydroxy-6-(5-(p-tolyl)-1H-imidazol-2-yl)piperidin-1-yl)-2-methylbutan-1-one, 1-(2-hydroxy-6-(5-(p-tolyl)-1H-imidazol-2-yl)piperidin-1-yl)-2-(methylsulfonyl)propan-1-one, 1-(3-hydroxy-2-(5-(p-tolyl)-1H-imidazol-2-yl)piperidin-1-yl)-2-(methylthio)propan-1-one, 1-(3-hydroxy-2-(5-(p-tolyl)-1H-imidazol-2-yl)piperidin-1-yl)-2-methylbutan-1-one, 1-(3-hydroxy-2-(5-(p-tolyl)-1H-imidazol-2-yl)piperidin-1-yl)-2-(methylsulfonyl)propan-1-one, 1-(2-(5-(4-(hydroxymethyl)phenyl)-1H-imidazol-2-yl)piperidin-1-yl)-2-(methylsulfinyl)propan-1-one, 1-(4-hydroxy-2-(5-(p-tolyl)-1H-imidazol-2-yl)piperidin-1-yl)-2-(methylsulfinyl)propan-1-one, 1-(5-hydroxy-2-(5-(p-tolyl)-1H-imidazol-2-yl)piperidin-1-yl)-2-(methylsulfinyl)propan-1-one, 1-(2-hydroxy-6-(5-(p-tolyl)-1H-imidazol-2-yl)piperidin-1-yl)-2-(methylsulfinyl)propan-1-one, 1-(3-hydroxy-2-(5-(p-tolyl)-1H-imidazol-2-yl)piperidin-1-yl)-2-(methylsulfinyl)propan-1-one, 1-(2-hydroxy-6-(5-(4-(hydroxymethyl)phenyl)-1H-imidazol-2-yl)piperidin-1-yl)-2-(methylthio)propan-1-one, 1-(5-hydroxy-2-(5-(4-(hydroxymethyl)phenyl)-1H-imidazol-2-yl)piperidin-1-yl)-2-(methylthio)propan-1-one, 1-(4-hydroxy-2-(5-(4-(hydroxymethyl)phenyl)-1H-imidazol-2-yl)piperidin-1-yl)-2-(methylthio)propan-1-one, 1-(3-hydroxy-2-(5-

(4-(hydroxymethyl)-phenyl)-1H-imidazol-2-yl)piperidin-1-yl)-2-(methylthio)propan-1-one, 1-(2-hydroxy-6-(5-(4-(hydroxymethyl)phenyl)-1H-imidazol-2-yl)piperidin-1-yl)-2-methylbutan-1-one, 1-(5-hydroxy-2-(5-(4-(hydroxymethyl)phenyl)-1H-imidazol-2-yl)piperidin-1-yl)-2-methylbutan-1-one, 1-(4-hydroxy-2-(5-(4-(hydroxymethyl)phenyl)-1H-imidazol-2-yl)piperidin-1-yl)-2-methylbutan-1-one, 1-(3-hydroxy-2-(5-(4-(hydroxymethyl)phenyl)-1H-imidazol-2-yl)piperidin-1-yl)-2-methylbutan-1-one, 4-(2-(1-(2-methylbutanoyl)piperidin-2-yl)-1H-imidazol-5-yl)benzaldehyde, 4-(2-(1-(2-(methylthio)propanoyl)piperidin-2-yl)-1H-imidazol-5-yl)benzoic acid, 4-(2-(1-(2-methylbutanoyl)piperidin-2-yl)-1H-imidazol-5-yl)benzoic acid, (2,2-dimethylcyclopropyl)(2-(5-(p-tolyl)-1H-imidazol-2-yl)piperidin-1-yl)methanone, 1-(2-(5-bromo-1H-imidazol-2-yl)piperidin-1-yl)-2-methylbutan-1-one, 1-(2-(5-(4-chlorophenyl)-1H-imidazol-2-yl)piperidin-1-yl)-2-methylbutan-1-one, 2-(4-(2-(1-(2-(methylthio)propanoyl)piperidin-2-yl)-1H-imidazol-5-yl)phenyl)acetonitrile, 2-(4-(2-(1-(2-methylbutanoyl)piperidin-2-yl)-1H-imidazol-5-yl)phenyl)acetonitrile, 2-(4-(2-(1-(2-methylbutanoyl)piperidin-2-yl)-1H-imidazol-5-yl)phenyl)acetonitrile, 2,3-dimethyl-1-(2-(5-(p-tolyl)-1H-imidazol-2-yl)piperidin-1-yl)butan-1-one, 2-methyl-1-(2-(5-(o-tolyl)-1H-imidazol-2-yl)piperidin-1-yl)butan-1-one, 2-methyl-1-(2-(5-(m-tolyl)-1H-imidazol-2-yl)piperidin-1-yl)butan-1-one, 1-(2-(5-(4-(hydroxymethyl)phenyl)-1H-imidazol-2-yl)piperidin-1-yl)-2-methylbutan-1-one, 1-(isopropylsulfonyl)-2-(5-(p-tolyl)-1H-imidazol-2-yl)piperidine, 1-(sec-butylsulfonyl)-2-(5-(p-tolyl)-1H-imidazol-2-yl)piperidine, 2-methyl-1-(2-(5-(5-methylthiophen-2-yl)-1H-imidazol-2-yl)piperidin-1-yl)butan-1-one, 2-(methylthio)-1-(2-(5-(p-tolyl)-1H-imidazol-2-yl)piperazin-1-yl)propan-1-one, 2-(methylthio)-1-(2-(4-(p-tolyl)oxazol-2-yl)piperidin-1-yl)propan-1-one, and 2-methyl-1-(2-(4-(p-tolyl)oxazol-2-yl)piperidin-1-yl)butan-1-one.

3. A non-medical method of inducing a cooling sensation in a human or animal comprising contacting the human or animal with a compound of formula (I), or a salt or solvate thereof, as defined in claim 1 or claim 2.
4. A method of achieving a cooling effect on the skin or mucosa comprising contacting the skin or mucosa with a product comprising one or more compounds of formula (I) as defined in claim 1 or claim 2.

5. A consumer product comprising one or more compounds of formula (I) as defined in claim 1 or claim 2.
6. A pharmaceutical composition comprising one or more compounds of formula (I) as defined in claim 1 or claim 2.
7. The compound of formula (I) as defined in claim 1 or claim 2, for use in providing cooling sensation.
8. The compound of formula (I) as defined in claim 1 or claim 2 for use as medicament.
9. A composition comprising a cool sensation wherein the composition comprises a compound of formula (I)



wherein

n is 0 or 1;

R¹ is selected from

- i) halogen,
- ii) C₆ – C₁₀ aryl,
- iii) C₅-C₁₀ mono- or bicyclic heteroaryl wherein up to 2 C-atoms are replaced by a hetero atoms independently selected from sulfur, nitrogen, and oxygen,
- iv) C₆ – C₁₀ aryl substituted with up to four substituents independently selected from the group consisting of
 - halogen; OH; C≡N; NO₂; C₁-C₆ alkyl;
 - C₁-C₆ alkyl comprising up to 5 halogen atoms;
 - C₁-C₃ alkyl comprising up to 3 OH groups;
 - C₂-C₆ alkenyl;
 - C₁-C₆ alkoxy;

- C₁-C₆ alkoxy comprising up to 3 halogen atoms;
 C₁-C₃ alkoxy C₁-C₃ alkyl;
 C₃-C₇ cycloalkyl;
 -C(O)R¹⁰ wherein R¹⁰ is selected from C₁-C₃ alkyl;
 5 -OC(O)R¹¹ wherein R¹¹ is selected from H, and C₁-C₃ alkyl;
 -C(O)O-R¹² wherein R¹² is selected from hydrogen and C₁-C₃ alkyl;
 - (CH₂)_mN(R¹³)R¹⁴ wherein m is 0 or 1, R¹³ is selected from hydrogen,
 C₁-C₃ alkyl, and -SO₂R¹⁵ wherein R¹⁵ is C₁-C₃ alkyl, and R¹⁴ is selected
 from hydrogen, C₁-C₃ alkyl, and -SO₂R¹⁶ wherein R¹⁶ is C₁-C₃ alkyl, or
 10 wherein R¹³ and R¹⁴ form together with the N atom to which they are
 attached morpholine, thiomorpholine, or 1,1-dioxothiomorpholine;
 -SR¹⁷ wherein R¹⁷ is selected from hydrogen and C₁-C₃ alkyl; and
 -S(O)₂R¹⁸ wherein R¹⁸ is selected from hydrogen and C₁-C₃ alkyl;
 with the proviso that when the aryl ring is substituted with two or more
 15 substituents, two substituents may form a cyclic ring together with the
 carbon atoms to which they are attached,
 and
 v) C₅-C₁₀ mono- or bicyclic heteroaryl wherein up to 2 C-atoms are replaced by
 a hetero atoms independently selected from sulfur, nitrogen, and oxygen,
 20 substituted with up to four substituents selected from the group consisting of
 halogen; OH (hydroxyl); C≡N (cyano); NO₂ (nitro); C₁-C₆ alky;
 C₁-C₆ alky comprising up to 5 halogen atoms;
 C₂-C₆ alkenyl;
 C₁-C₆ alkoxy;
 25 C₁-C₆ alkoxy comprising up to 3 halogen atoms;
 C₁-C₃ alkoxy C₁-C₃ alkyl;
 C₃-C₇ cycloalkyl;
 -C(O)R²⁰ wherein R²⁰ is selected from C₁-C₃ alkyl;
 -OC(O)R²¹ wherein R²¹ is selected from H, and C₁-C₃ alkyl;
 30 -C(O)O-R²² wherein R²² is selected from hydrogen and C₁-C₃ alkyl;
 -(CH₂)_mN(R²³)R²⁴ wherein m is 0 or 1, R²³ is selected from hydrogen,
 C₁-C₃ alkyl, and -SO₂R²⁵ wherein R²⁵ is C₁-C₃ alkyl, and R²⁴ is selected
 from hydrogen, C₁-C₃ alkyl, and -SO₂R²⁶ wherein R²⁶ is C₁-C₃ alkyl, or

wherein R^{23} and R^{24} form together with the N atom to which they are attached morpholine, thiomorpholine, or 1,1-dioxothiomorpholine;
 $-SR^{27}$ wherein R^{27} is selected from hydrogen and C_1-C_3 alkyl; and
 $-S(O)_2R^{28}$ wherein R^{28} is selected from hydrogen and C_1-C_3 alkyl;

5 Y is a monocyclic or bicyclic, unsaturated or aromatic heterocyclic ring comprising one, two, three or four heteroatoms independently selected from nitrogen, sulfur and oxygen, wherein the ring is optionally mono-, di-, or tri-substituted with a group selected from halogen, methyl, ethyl, $-N(R^{40})R^{41}$, $-CON(R^{40})R^{41}$, $-[CR^{40}R^{41}]_p-C(O)OR^{40}$, $-C(O)R^{40}$, and $-SO_2N(R^{40})R^{41}$ wherein
 10 R^{40} and R^{41} are independently selected from hydrogen and C_1-C_4 alkyl, and p is 0, 1, or 2;

A is a 5 to 7 membered heterocyclic ring optionally comprising one additional hetero atom selected from oxygen and sulfur, wherein the heterocyclic ring A is optionally substituted by one or two groups selected from $-OH$ and $=O$;

15 Z is either C, S or $S(O)$; and

R^4 , R^5 and R^6 form together with the carbon atom to which they are attached a hydrocarbon group optionally comprising up to five hetero atoms selected from O, N, S, and F.

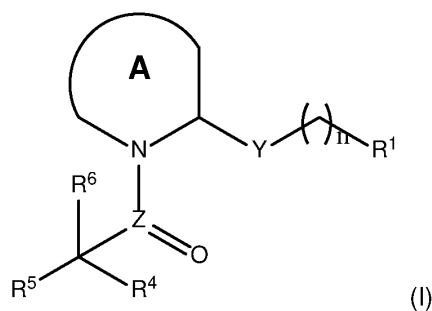
20 10. A composition according to claim 9 comprising at least one compound of formula (I), a salt or solvate thereof, and a further cooling compound.

25 11. A composition according to claim 10 wherein the further cooling compound is selected from menthol, menthone, p-menthanecarboxamides, N-2,3-trimethyl-2-isopropyl-butanamide, menthyl lactate, menthone glycerol acetal, 3-(1-menthoxy)-propane-1,2-diol, p-menthane-3,8-diol, isopulegol, monomenthyl succinate, monomenthyl glutarate, o-menthylglycerol, menthyl N,N-dimethylsuccinamate, 2-(sec-butyl)cyclohexan-1-one, N-(pyrazol-3-yl)-N-(thiophen-2-ylmethyl)-2-(p-tolyloxy)acetamide, 2-(4-ethylphenoxy)-N-(pyrazol-3-yl)-N-(thiophen-2-ylmethyl)acetamide, 3-(benzo[d][1,3]dioxol-5-yl)-N,N-diphenylacrylamide, 4-(2-(4-allyl-2,6-dimethoxyphenoxy)-1-ethoxypropyl)-2-methoxyphenol, 4-(2-(4-allyl-2,6-dimethoxyphenoxy)-1-((2-isopropyl-5-methylcyclohexyl)oxy)propyl)-2-methoxyphenol, N-(2-Hydroxy-2-phenylethyl)-2-

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isopropyl-5,5-dimethylcyclohexane-1-carboxamide, N-(4-(Cyanomethyl)phenyl)-2-isopropyl-5,5-dimethylcyclohexanecarboxamide and N-(3-Hydroxy-4-methoxyphenyl)-2-isopropyl-5,5-dimethylcyclohexanecarboxamide.

5 12. A compound of formula (I), a salt or solvate thereof



wherein

n is 0 or 1;

R¹ is selected from

- 10 i) halogen,
- ii) C₆ – C₁₀ aryl,
- iii) C₅-C₁₀ mono- or bicyclic heteroaryl wherein up to 2 C-atoms are replaced by a hetero atoms independently selected from sulfur, nitrogen, and oxygen,
- iv) C₆ – C₁₀ aryl substituted with up to four substituents independently selected
- 15 from the group consisting of
- halogen; OH; C≡N; NO₂; C₁-C₆ alkyl;
- C₁-C₆ alkyl comprising up to 5 halogen atoms;
- C₁-C₃ alkyl comprising up to 3 OH groups;
- C₂-C₆ alkenyl;
- 20 C₁-C₆ alkoxy;
- C₁-C₆ alkoxy comprising up to 3 halogen atoms;
- C₁-C₃ alkoxy C₁-C₃ alkyl;
- C₃-C₇ cycloalkyl;
- C(O)R¹⁰ wherein R¹⁰ is selected from C₁-C₃ alkyl;
- 25 –OC(O)R¹¹ wherein R¹¹ is selected from H, and C₁-C₃ alkyl;
- C(O)O-R¹² wherein R¹² is selected from hydrogen and C₁-C₃ alkyl;

- 5 – (CH₂)_mN(R¹³)R¹⁴ wherein m is 0 or 1, R¹³ is selected from hydrogen, C₁-C₃ alkyl, and –SO₂R¹⁵ wherein R¹⁵ is C₁-C₃ alkyl, and R¹⁴ is selected from hydrogen, C₁-C₃ alkyl, and –SO₂R¹⁶ wherein R¹⁶ is C₁-C₃ alkyl, or wherein R¹³ and R¹⁴ form together with the N atom to which they are attached morpholine, thiomorpholine, or 1,1-dioxothiomorpholine;
- 10 –SR¹⁷ wherein R¹⁷ is selected from hydrogen and C₁-C₃ alkyl; and
 –S(O)₂R¹⁸ wherein R¹⁸ is selected from hydrogen and C₁-C₃ alkyl;
- with the proviso that when the aryl ring is substituted with two or more substituents, two substituents may form a cyclic ring together with the carbon atoms to which they are attached,
- and
- 15 v) C₅-C₁₀ mono- or bicyclic heteroaryl wherein up to 2 C-atoms are replaced by a hetero atoms independently selected from sulfur, nitrogen, and oxygen, substituted with up to four substituents selected from the group consisting of halogen; OH (hydroxyl); C≡N (cyano); NO₂ (nitro); C₁-C₆ alky; C₁-C₆ alky comprising up to 5 halogen atoms; C₂-C₆ alkenyl; C₁-C₆ alkoxy;
- 20 C₁-C₆ alkoxy comprising up to 3 halogen atoms; C₁-C₃ alkoxy C₁-C₃ alkyl; C₃-C₇ cycloalkyl;
- 25 –C(O)R²⁰ wherein R²⁰ is selected from C₁-C₃ alkyl; –OC(O)R²¹ wherein R²¹ is selected from H, and C₁-C₃ alkyl; –C(O)O-R²² wherein R²² is selected from hydrogen and C₁-C₃ alkyl;
- 30 –(CH₂)_mN(R²³)R²⁴ wherein m is 0 or 1, R²³ is selected from hydrogen, C₁-C₃ alkyl, and –SO₂R²⁵ wherein R²⁵ is C₁-C₃ alkyl, and R²⁴ is selected from hydrogen, C₁-C₃ alkyl, and –SO₂R²⁶ wherein R²⁶ is C₁-C₃ alkyl, or wherein R²³ and R²⁴ form together with the N atom to which they are attached morpholine, thiomorpholine, or 1,1-dioxothiomorpholine;
- SR²⁷ wherein R²⁷ is selected from hydrogen and C₁-C₃ alkyl; and
 –S(O)₂R²⁸ wherein R²⁸ is selected from hydrogen and C₁-C₃ alkyl;

Y is a monocyclic or bicyclic, unsaturated or aromatic heterocyclic ring comprising one, two, three or four heteroatoms independently selected from nitrogen, sulfur and oxygen, wherein the ring is optionally mono-, di-, or tri-substituted with a group selected from halogen, methyl, ethyl, $-N(R^{40})R^{41}$, $-CON(R^{40})R^{41}$, $-[CR^{40}R^{41}]_p-C(O)OR^{40}$, $-C(O)R^{40}$, and $-SO_2N(R^{40})R^{41}$ wherein R^{40} and R^{41} are independently selected from hydrogen and C_1 - C_4 alkyl, and p is 0, 1, or 2:

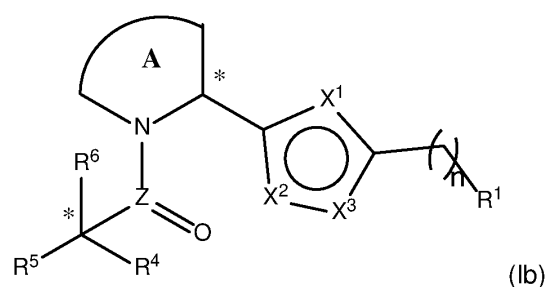
A is a 5 to 7 membered heterocyclic ring optionally comprising one additional hetero atom selected from oxygen and sulfur, wherein the heterocyclic ring A is optionally substituted by one or two groups selected from -OH and =O;

Z is either C, S or S(O); and

R⁴, R⁵ and R⁶ form together with the carbon atom to which they are attached a hydrocarbon group optionally comprising up to five hetero atoms selected from O, N, S, and F.

13. The compound of formula (I), a salt or solvate thereof according to claim 12, wherein Y is a 5 membered unsaturated heterocyclic ring comprising one, two, three or four heteroatoms independently selected from nitrogen, sulfur and oxygen, or Y is benzimidazole.

14. The compound according to claim 12 or claim 13 wherein the compound is selected from a compound of formula (Ib)



wherein

n is 0 or 1;

R^1 is selected from

- i) C₆ aryl or heteroaryl wherein up to 2 C atoms are replaced by a N atom, substituted with 1-4 (e.g. 2 or 3) substituents selected from the group consisting of
- halogen; OH (hydroxyl); C≡N (cyano); NO₂ (nitro); C₁-C₆ alky;
- 5 C₁-C₆ alky comprising up to 5 halogen atoms;
- C₂-C₆ alkenyl;
- C₁-C₆ alkoxy;
- C₁-C₆ alkoxy comprising up to 3 halogen atoms;
- C₁-C₃ alkoxy C₁-C₃ alkyl;
- 10 C₃-C₇ cycloalkyl;
- C(O)R²⁰ wherein R²⁰ is selected from C₁-C₃ alkyl;
- OC(O)R²¹ wherein R²¹ is selected from H, and C₁-C₃ alkyl;
- C(O)O-R²² wherein R²² is selected from hydrogen and C₁-C₃ alkyl;
- (CH₂)_mN(R²³)R²⁴ wherein m is 0 or 1, R²³ is selected from hydrogen, C₁-C₃
- 15 alkyl, and —SO₂R²⁵ wherein R²⁵ is C₁-C₃ alkyl, and R²⁴ is selected from hydrogen, C₁-C₃ alkyl, and —SO₂R²⁶ wherein R²⁶ is C₁-C₃ alkyl, or wherein R²³ and R²⁴ form together with the N atom to which they are attached morpholine, thiomorpholine, or 1,1-dioxothiomorpholine;
- SR²⁷ wherein R²⁷ is selected from hydrogen and C₁-C₃ alkyl; and
- 20 —S(O)₂R²⁸ wherein R²⁸ is selected from hydrogen and C₁-C₃ alkyl;
- with the proviso that one substituent is attached to the para-position relative to the attachment of R¹ to the rest of the formula (Ib) (e.g. R¹ is para-tolyl); and
- ii) thiophene, substituted with up to three substituents selected from the group consisting of
- 25 halogen; OH (hydroxyl); C≡N (cyano); NO₂ (nitro); C₁-C₆ alky;
- C₁-C₆ alky comprising up to 5 halogen atoms;
- C₂-C₆ alkenyl;
- C₁-C₆ alkoxy;
- 30 C₁-C₆ alkoxy comprising up to 3 halogen atoms;
- C₁-C₃ alkoxy C₁-C₃ alkyl;
- C₃-C₇ cycloalkyl;
- C(O)R²⁰ wherein R²⁰ is selected from C₁-C₃ alkyl;
- OC(O)R²¹ wherein R²¹ is selected from H, and C₁-C₃ alkyl;

- $-\text{C}(\text{O})\text{O}-\text{R}^{22}$ wherein R^{22} is selected from hydrogen and $\text{C}_1\text{-C}_3$ alkyl;
 $-(\text{CH}_2)_m\text{N}(\text{R}^{23})\text{R}^{24}$ wherein m is 0 or 1, R^{23} is selected from hydrogen, $\text{C}_1\text{-C}_3$ alkyl, and $-\text{SO}_2\text{R}^{25}$ wherein R^{25} is $\text{C}_1\text{-C}_3$ alkyl, and R^{24} is selected from hydrogen, $\text{C}_1\text{-C}_3$ alkyl, and $-\text{SO}_2\text{R}^{26}$ wherein R^{26} is $\text{C}_1\text{-C}_3$ alkyl, or wherein R^{23} and R^{24} form together with the N atom to which they are attached morpholine, thiomorpholine, or 1,1-dioxothiomorpholine;
 $-\text{SR}^{27}$ wherein R^{27} is selected from hydrogen and $\text{C}_1\text{-C}_3$ alkyl; and
 $-\text{S}(\text{O})_2\text{R}^{28}$ wherein R^{28} is selected from hydrogen and $\text{C}_1\text{-C}_3$ alkyl;
- A is a 5 to 7 membered heterocyclic ring optionally comprising one additional hetero atom selected from oxygen and sulfur, wherein the heterocyclic ring A is optionally substituted by one or two groups selected from $-\text{OH}$ and $=\text{O}$;
- Z is either C, S or $\text{S}(\text{O})$;
- X^1 is NH, O, or S;
- X^2 and X^3 are independently selected from C, N, and O, with the proviso that either X^2 or X^3 is not C;
- R^4 is selected from hydrogen and methyl;
- R^5 is selected from hydrogen, $\text{C}_1\text{-C}_2$ alkyl, $\text{C}_2\text{-C}_3$ alkenyl;
- R^6 is selected from $\text{C}_1\text{-C}_4$ alkyl, $\text{C}_2\text{-C}_5$ alkenyl containing one or two double bonds, $\text{C}_1\text{-C}_3$ alkoxy, $\text{C}_1\text{-C}_4$ alkyl- $\text{C}(\text{O})-$, $\text{C}_1\text{-C}_4$ alkyl-S-, $\text{C}_1\text{-C}_4$ alkyl- SCH_2- , $\text{C}_1\text{-C}_4$ alkenyl-S-, $\text{C}_1\text{-C}_4$ alkyl- $\text{S}(\text{O})-$, $\text{C}_1\text{-C}_4$ alkyl- $\text{S}(\text{O})_2-$, $\text{C}_1\text{-C}_4$ alkenyl- $\text{S}(\text{O})-$, $\text{C}_1\text{-C}_4$ alkenyl- $\text{S}(\text{O})_2-$, -SH, $\text{CF}_3\text{S-}$, cyclopropyl, cyclobutyl, furyl (e.g. 2-furyl or 3-furyl) optionally substituted with methyl, $\text{C}_1\text{-C}_6$ fluoro-alkyl (such as pentafluoroethyl, difluoromethyl, trifluoromethyl, 2,2,2-trifluoroethyl or difluoroethyl), and $-\text{NR}^{30}\text{R}^{31}$ wherein R^{30} and R^{31} are independently selected from hydrogen and $\text{C}_1\text{-C}_3$ alkyl;
- or
- R^6 and R^5 form together with the carbon atom to which they are attached a carbonyl group ($\text{C}=\text{O}$), a vinyl group ($\text{C}=\text{CR}^{32}\text{R}^{33}$ wherein R^{32} and R^{33} are independently selected from H or $\text{C}_1\text{-C}_3$ alkyl), or 2,2-dimethylcyclopropyl; with the proviso that R^5 and R^6 together with the carbon atom to which they are attached comprises at least 4 C-atoms wherein one C-atom is optionally replaced by one heteroatom selected from S and N.

15. A compound according to claim 12 wherein the compound is selected from selected from the group consisting of (2-(4-phenyl-1H-imidazol-2-yl)piperidin-1-yl)(1,2,3-thiadiazol-5-yl)methanone, (2-(4-phenyl-1H-imidazol-2-yl)piperidin-1-yl)(thietan-3-yl)methanone, (2,2-dimethylcyclopropyl)(2-(4-phenyl-1H-imidazol-2-yl)piperidin-1-yl)methanone, (2-ethoxycyclopropyl)(2-(4-phenyl-1H-imidazol-2-yl)piperidin-1-yl)methanone, (2-methoxycyclopropyl)(2-(4-phenyl-1H-imidazol-2-yl)piperidin-1-yl)methanone, (2-methylcyclopropyl)(2-(4-phenyl-1H-imidazol-2-yl)piperidin-1-yl)methanone, (2S)-2-methyl-1-(2-(5-(p-tolyl)-1H-imidazol-2-yl)piperidin-1-yl)butan-1-one, (5-methyltetrahydrofuran-3-yl)(2-(4-phenyl-1H-imidazol-2-yl)piperidin-1-yl)methanone, (E)-1-(2-(5-(3,4-difluorophenyl)-1H-imidazol-2-yl)piperidin-1-yl)-2-methylbut-2-en-1-one, (E)-2-methyl-1-(2-(5-(p-tolyl)-1H-imidazol-2-yl)piperidin-1-yl)but-2-en-1-one, (E)-2-methyl-1-(2-(5-(p-tolyl)-1H-imidazol-2-yl)piperidin-1-yl)pent-3-en-1-one, (R)-2-(methylthio)-1-((R)-2-(5-(p-tolyl)-1H-imidazol-2-yl)piperidin-1-yl)propan-1-one, (S)-2-(methylthio)-1-((R)-2-(5-(p-tolyl)-1H-imidazol-2-yl)piperidin-1-yl)propan-1-one, (S)-2-(methylthio)-1-((S)-2-(5-(p-tolyl)-1H-imidazol-2-yl)piperidin-1-yl)propan-1-one, (S)-2-methyl-1-((R)-2-(5-(p-tolyl)-1H-imidazol-2-yl)piperidin-1-yl)butan-1-one, (tetrahydrofuran-3-yl)(2-(5-(p-tolyl)-1H-imidazol-2-yl)piperidin-1-yl)methanone, 1-(2-(1H-benzo[d]imidazol-2-yl)piperidin-1-yl)-2-(methylthio)propan-1-one, 1-(2-(4-(1-methyl-1H-pyrazol-4-yl)-1H-imidazol-2-yl)piperidin-1-yl)-2-(methylthio)propan-1-one, 1-(2-(4-(2,2-difluorobenzo[d][1,3]dioxol-5-yl)-1H-imidazol-2-yl)piperidin-1-yl)-2-(methylthio)propan-1-one, 1-(2-(4-(2,3-dihydrobenzofuran-5-yl)-1H-imidazol-2-yl)piperidin-1-yl)-2-(methylthio)propan-1-one, 1-(2-(4-(2,3-dihydrobenzofuran-6-yl)-1H-imidazol-2-yl)piperidin-1-yl)-2-(methylthio)propan-1-one, 1-(2-(4-(2,5-dimethylphenyl)-1H-imidazol-2-yl)piperidin-1-yl)-2-(methylthio)propan-1-one, 1-(2-(4-(2-chlorophenyl)-1H-imidazol-2-yl)piperidin-1-yl)-2-(methylthio)propan-1-one, 1-(2-(4-(2-cyclopropyloxazol-5-yl)-1H-imidazol-2-yl)piperidin-1-yl)-2-(methylthio)propan-1-one, 1-(2-(4-(2-fluorophenyl)-1H-imidazol-2-yl)piperidin-1-yl)-2-(methylthio)propan-1-one, 1-(2-(4-(2-hydroxyphenyl)-1H-imidazol-2-yl)piperidin-1-yl)-2-(methylthio)propan-1-one, 1-(2-(4-(3-((dimethylamino)methyl)phenyl)-1H-imidazol-2-yl)piperidin-1-yl)-2-(methylthio)propan-1-one, 1-(2-(4-(3,5-difluorophenyl)-1H-imidazol-2-yl)piperidin-1-yl)-2-(methylthio)propan-1-one, 1-(2-(4-(3,5-dimethylisoxazol-4-yl)-1H-imidazol-2-yl)piperidin-1-yl)-2-(methylthio)propan-1-one, 1-(2-(4-(3-chloro-4-

5 methylphenyl)-1H-imidazol-2-yl)piperidin-1-yl)-2-(methylthio)propan-1-one, 1-(2-(4-(3-methylfuran-2-yl)-1H-imidazol-2-yl)piperidin-1-yl)-2-(methylthio)propan-1-one, 1-(2-(4-(4-((1,1-dioxidothiomorpholino)methyl)phenyl)-1H-imidazol-2-yl)piperidin-1-yl)-2-(methylthio)propan-1-one, 1-(2-(4-(4-(1-hydroxyethyl)phenyl)-1H-imidazol-2-yl)piperidin-1-yl)-2-(methylthio)propan-1-one, 1-(2-(4-(4-(difluoromethoxy)-3-fluorophenyl)-1H-imidazol-2-yl)piperidin-1-yl)-2-(methylthio)propan-1-one, 1-(2-(4-(4-(difluoromethyl)thiophen-3-yl)-1H-imidazol-2-yl)piperidin-1-yl)-2-(methylthio)propan-1-one, 1-(2-(4-(4-(methylsulfonyl)phenyl)-1H-imidazol-2-yl)piperidin-1-yl)-2-(methylthio)propan-1-one, 1-(2-(4-(4-(tert-butyl)phenyl)-1H-imidazol-2-yl)piperidin-1-yl)-2-(methylthio)propan-1-one, 1-(2-(4-(4-(cyclobutyl)phenyl)-1H-imidazol-2-yl)piperidin-1-yl)-2-(methylthio)propan-1-one, 1-(2-(4-(4-(cyclopropyl)-2-fluorophenyl)-1H-imidazol-2-yl)piperidin-1-yl)-2-(methylthio)propan-1-one, 1-(2-(4-(4-(4-fluorophenyl)-1H-imidazol-2-yl)piperidin-1-yl)-2-(methylthio)propan-1-one, 1-(2-(4-(4-(4-hydroxyphenyl)-1H-imidazol-2-yl)piperidin-1-yl)-2-(methylthio)propan-1-one, 1-(2-(4-(4-(4-isopropylphenyl)-1H-imidazol-2-yl)piperidin-1-yl)-2-(methylthio)propan-1-one, 1-(2-(4-(4-(4-methyl-3-(trifluoromethyl)phenyl)-1H-imidazol-2-yl)piperidin-1-yl)-2-(methylthio)propan-1-one, 1-(2-(4-(5-((dimethylamino)methyl)thiophen-2-yl)-1H-imidazol-2-yl)piperidin-1-yl)-2-(methylthio)propan-1-one, 1-(2-(4-(5-methylfuran-2-yl)-1H-imidazol-2-yl)piperidin-1-yl)-2-(methylthio)propan-1-one, 1-(2-(4-(5-methylpyridin-3-yl)-1H-imidazol-2-yl)piperidin-1-yl)-2-(methylthio)propan-1-one, 1-(2-(4-(6-methylpyridin-3-yl)-1H-imidazol-2-yl)piperidin-1-yl)-2-(methylthio)propan-1-one, 1-(2-(4-(benzo[b]thiophen-6-yl)-1H-imidazol-2-yl)piperidin-1-yl)-2-(methylthio)propan-1-one, 1-(2-(4-methyl-5-phenyl-1H-imidazol-2-yl)piperidin-1-yl)-2-(methylthio)propan-1-one, 1-(2-(4-phenyl-1H-imidazol-2-yl)piperidin-1-yl)-2-((trifluoromethyl)thio)ethan-1-one, 1-(2-(4-phenyl-1H-imidazol-2-yl)piperidin-1-yl)butan-1-one, 1-(2-(4-phenyl-1H-imidazol-2-yl)piperidin-1-yl)hexa-3,5-dien-1-one, 1-(2-(4-phenyl-1H-imidazol-2-yl)piperidin-1-yl)pent-4-en-1-one, 1-(2-(4-phenyl-1H-imidazol-2-yl)piperidin-1-yl)propan-1-one, 1-(2-(5-(2,3-difluorophenyl)-1H-imidazol-2-yl)piperidin-1-yl)-2-(methylthio)propan-1-one, 1-(2-(5-(2,4-difluorophenyl)-1H-imidazol-2-yl)piperidin-1-yl)-2-(methylthio)propan-1-one, 1-(2-(5-(2,5-difluorophenyl)-1H-imidazol-2-yl)piperidin-1-yl)-2-(methylthio)propan-1-one, 1-(2-(5-(2-fluoro-4-methoxyphenyl)-1H-imidazol-2-

yl)piperidin-1-yl)-2-(methylthio)propan-1-one, 1-(2-(5-(2-fluoro-4-methylphenyl)-1H-imidazol-2-yl)piperidin-1-yl)-2-(methylthio)propan-1-one, 1-(2-(5-(2-methoxypyrimidin-5-yl)-1H-imidazol-2-yl)piperidin-1-yl)-2-(methylthio)propan-1-one, 1-(2-(5-(3-(methylamino)phenyl)-1H-imidazol-2-yl)piperidin-1-yl)-2-(methylthio)propan-1-one, 1-(2-(5-(3,4-difluorophenyl)-1H-imidazol-2-yl)piperidin-1-yl)-2-(methylthio)propan-1-one, 1-(2-(5-(3,4-difluorophenyl)-1H-imidazol-2-yl)piperidin-1-yl)-2-methylbut-3-en-1-one, 1-(2-(5-(3,4-dimethoxyphenyl)-1H-imidazol-2-yl)piperidin-1-yl)-2-(methylthio)propan-1-one, 1-(2-(5-(3,4-dimethylphenyl)-1H-imidazol-2-yl)piperidin-1-yl)-2-(methylthio)propan-1-one, 1-(2-(5-(3-fluoro-4-(methoxymethyl)phenyl)-1H-imidazol-2-yl)piperidin-1-yl)-2-(methylthio)propan-1-one, 1-(2-(5-(3-fluoro-4-methylphenyl)-1H-imidazol-2-yl)piperidin-1-yl)-2-(methylthio)propan-1-one, 1-(2-(5-(3-fluorophenyl)-1H-imidazol-2-yl)piperidin-1-yl)-2-(methylthio)propan-1-one, 1-(2-(5-(3-methoxyisothiazol-4-yl)-1H-imidazol-2-yl)piperidin-1-yl)-2-(methylthio)propan-1-one, 1-(2-(5-(3-methoxyphenyl)-1H-imidazol-2-yl)piperidin-1-yl)-2-(methylthio)propan-1-one, 1-(2-(5-(4-((methylamino)methyl)phenyl)-1H-imidazol-2-yl)piperidin-1-yl)-2-(methylthio)propan-1-one, 1-(2-(5-(4-(2-methoxyethyl)phenyl)-1H-imidazol-2-yl)piperidin-1-yl)-2-(methylthio)propan-1-one, 1-(2-(5-(4-(aminomethyl)phenyl)-1H-imidazol-2-yl)piperidin-1-yl)-2-(methylthio)propan-1-one, 1-(2-(5-(4-(dimethylamino)phenyl)-1H-imidazol-2-yl)piperidin-1-yl)-2-(methylthio)propan-1-one, 1-(2-(5-(4-(hydroxymethyl)phenyl)-1H-imidazol-2-yl)piperidin-1-yl)-2-(methylthio)propan-1-one, 1-(2-(5-(4-acetylphenyl)-1H-imidazol-2-yl)piperidin-1-yl)-2-(methylthio)propan-1-one, 1-(2-(5-(4-aminophenyl)-1H-imidazol-2-yl)piperidin-1-yl)-2-(methylthio)propan-1-one, 1-(2-(5-(4-chloro-3-fluorophenyl)-1H-imidazol-2-yl)piperidin-1-yl)-2-(methylthio)propan-1-one, 1-(2-(5-(4-chlorophenyl)-1H-imidazol-2-yl)piperidin-1-yl)-2-(methylthio)propan-1-one, 1-(2-(5-(4-ethylphenyl)-1H-imidazol-2-yl)piperidin-1-yl)-2-(methylthio)propan-1-one, 1-(2-(5-(4-fluorophenyl)-4H-1,2,4-triazol-3-yl)piperidin-1-yl)-2-(methylthio)propan-1-one, 1-(2-(5-(4-methoxy-2-methylphenyl)-1H-imidazol-2-yl)piperidin-1-yl)-2-(methylthio)propan-1-one, 1-(2-(5-(4-methoxyphenyl)-1H-imidazol-2-yl)piperidin-1-yl)-2-(methylthio)propan-1-one, 1-(2-(5-(4-methyl-6-(methylthio)pyridin-3-yl)-1H-imidazol-2-yl)piperidin-1-yl)-2-(methylthio)propan-1-one, 1-(2-(5-(5-(methoxymethyl)thiophen-3-yl)-1H-imidazol-2-yl)piperidin-1-yl)-2-(methylthio)propan-1-one, 1-(2-(5-(6-

methoxypyridin-3-yl)-1H-imidazol-2-yl)piperidin-1-yl)-2-(methylthio)propan-1-one, 1-(2-(5-(benzo[d][1,3]dioxol-5-yl)-1H-imidazol-2-yl)piperidin-1-yl)-2-(methylthio)propan-1-one, 1-(2-(5-(p-tolyl)-1H-imidazol-2-yl)piperidin-1-yl)propan-1-one, 1-(2-(5-benzyl-1H-imidazol-2-yl)piperidin-1-yl)-2-(methylthio)propan-1-one, 1-(2-(5-bromo-1H-imidazol-2-yl)piperidin-1-yl)-2-(methylthio)propan-1-one, 2-(2-(1-(2-(methylthio)propanoyl)piperidin-2-yl)-1H-imidazol-5-yl)benzonitrile, 2-(2-(4-phenyl-1H-imidazol-2-yl)piperidine-1-carbonyl)cyclopropane-1-carbonitrile, 2-(5-methylfuran-2-yl)-1-(2-(4-phenyl-1H-imidazol-2-yl)piperidin-1-yl)propan-1-one, 2-(allylthio)-1-(2-(5-(p-tolyl)-1H-imidazol-2-yl)piperidin-1-yl)propan-1-one, 2-(dimethylamino)-1-(2-(4-phenyl-1H-imidazol-2-yl)piperidin-1-yl)butan-1-one, 2-(dimethylamino)-1-(2-(4-phenyl-1H-imidazol-2-yl)piperidin-1-yl)propan-1-one, 2-(ethylthio)-1-(2-(5-(p-tolyl)-1H-imidazol-2-yl)piperidin-1-yl)propan-1-one, 2-(furan-2-yl)-1-(2-(4-phenyl-1H-imidazol-2-yl)piperidin-1-yl)ethan-1-one, 2-(furan-2-yl)-1-(2-(4-phenyl-1H-imidazol-2-yl)piperidin-1-yl)propan-1-one, 2-(furan-3-yl)-1-(2-(4-phenyl-1H-imidazol-2-yl)piperidin-1-yl)ethan-1-one, 2-(furan-3-yl)-1-(2-(5-(p-tolyl)-1H-imidazol-2-yl)piperidin-1-yl)propan-1-one, 2-(methylamino)-N-(4-(2-(1-(2-(methylthio)propanoyl)piperidin-2-yl)-1H-imidazol-5-yl)phenyl)acetamide, 2-(methylsulfinyl)-1-(2-(5-(p-tolyl)-1H-imidazol-2-yl)piperidin-1-yl)propan-1-one, 2-(methylsulfonyl)-1-(2-(4-phenyl-1H-imidazol-2-yl)piperidin-1-yl)ethan-1-one, 2-(methylsulfonyl)-1-(2-(4-phenyl-1H-imidazol-2-yl)piperidin-1-yl)propan-1-one, 2-(methylthio)-1-(2-(2-(p-tolyl)-2H-tetrazol-5-yl)piperidin-1-yl)propan-1-one, 2-(methylthio)-1-(2-(3-phenyl-1,2,4-oxadiazol-5-yl)piperidin-1-yl)propan-1-one, 2-(methylthio)-1-(2-(4-(1-(trifluoromethyl)-1H-pyrazol-4-yl)-1H-imidazol-2-yl)piperidin-1-yl)propan-1-one, 2-(methylthio)-1-(2-(4-(4-(morpholinomethyl)phenyl)-1H-imidazol-2-yl)piperidin-1-yl)propan-1-one, 2-(methylthio)-1-(2-(4-(5-(trifluoromethyl)furan-2-yl)-1H-imidazol-2-yl)piperidin-1-yl)propan-1-one, 2-(methylthio)-1-(2-(4-(5-(trifluoromethyl)thiophen-2-yl)-1H-imidazol-2-yl)piperidin-1-yl)propan-1-one, 2-(methylthio)-1-(2-(4-(5-methylthiophen-3-yl)-1H-imidazol-2-yl)piperidin-1-yl)propan-1-one, 2-(methylthio)-1-(2-(4-(m-tolyl)-1H-imidazol-2-yl)piperidin-1-yl)propan-1-one, 2-(methylthio)-1-(2-(4-(o-tolyl)-1H-imidazol-2-yl)piperidin-1-yl)propan-1-one, 2-(methylthio)-1-(2-(4-(pyridin-3-yl)-1H-imidazol-2-yl)piperidin-1-yl)propan-1-one, 2-(methylthio)-1-(2-(4-(pyridin-4-yl)-1H-imidazol-2-yl)piperidin-1-yl)propan-1-one,

2-(methylthio)-1-(2-(4-(pyrimidin-5-yl)-1H-imidazol-2-yl)piperidin-1-yl)propan-1-one, 2-(methylthio)-1-(2-(4-(quinoxalin-6-yl)-1H-imidazol-2-yl)piperidin-1-yl)propan-1-one, 2-(methylthio)-1-(2-(4-(thiophen-3-yl)-1H-imidazol-2-yl)piperidin-1-yl)propan-1-one, 2-(methylthio)-1-(2-(4-phenyl-1H-imidazol-2-yl)piperidin-1-yl)ethan-1-one, 2-(methylthio)-1-(2-(5-(2-(trifluoromethyl)phenyl)-1H-imidazol-2-yl)piperidin-1-yl)propan-1-one, 2-(methylthio)-1-(2-(5-(2,3,4-trifluorophenyl)-1H-imidazol-2-yl)piperidin-1-yl)propan-1-one, 2-(methylthio)-1-(2-(5-(2,4,5-trifluorophenyl)-1H-imidazol-2-yl)piperidin-1-yl)propan-1-one, 2-(methylthio)-1-(2-(5-(3-(trifluoromethyl)phenyl)-1H-imidazol-2-yl)piperidin-1-yl)propan-1-one, 2-(methylthio)-1-(2-(5-(4-(trifluoromethoxy)phenyl)-1H-imidazol-2-yl)piperidin-1-yl)propan-1-one, 2-(methylthio)-1-(2-(5-(4-(trifluoromethyl)phenyl)-1H-imidazol-2-yl)piperidin-1-yl)propan-1-one, 2-(methylthio)-1-(2-(5-(4-propylphenyl)-1H-imidazol-2-yl)piperidin-1-yl)propan-1-one, 2-(methylthio)-1-(2-(5-(4-vinylphenyl)-1H-imidazol-2-yl)piperidin-1-yl)propan-1-one, 2-(methylthio)-1-(2-(5-(5-methylthiophen-2-yl)-1H-imidazol-2-yl)piperidin-1-yl)propan-1-one, 2-(methylthio)-1-(2-(5-(p-tolyl)-1,3,4-oxadiazol-2-yl)piperidin-1-yl)propan-1-one, 2-(methylthio)-1-(2-(5-(p-tolyl)-1H-imidazol-2-yl)azepan-1-yl)propan-1-one, 2-(methylthio)-1-(2-(5-(p-tolyl)-1H-imidazol-2-yl)piperidin-1-yl)propan-1-one, 2-(methylthio)-1-(2-(5-(p-tolyl)-4H-1,2,4-triazol-3-yl)piperidin-1-yl)propan-1-one, 2-(methylthio)-1-(2-(5-(p-tolyl)isoxazol-3-yl)piperidin-1-yl)propan-1-one, 2-(methylthio)-1-(2-(5-(p-tolyl)oxazol-2-yl)piperidin-1-yl)propan-1-one, 2-(methylthio)-1-(2-(5-(p-tolyl)thiazol-2-yl)piperidin-1-yl)propan-1-one, 2-(methylthio)-1-(2-(5-phenyl-1H-imidazol-2-yl)piperidin-1-yl)propan-1-one, 2-(methylthio)-1-(2-(5-phenyl-1H-imidazol-2-yl)pyrrolidin-1-yl)propan-1-one, 2-(methylthio)-1-(2-(5-phenyl-4H-1,2,4-triazol-3-yl)piperidin-1-yl)propan-1-one, 2-(methylthio)-1-(2-(5-phenyloxazol-2-yl)piperidin-1-yl)propan-1-one, 2-(methylthio)-1-(4-(5-(p-tolyl)-1H-imidazol-2-yl)thiazolidin-3-yl)propan-1-one, 2,2,3-trimethyl-1-(2-(5-(p-tolyl)-1H-imidazol-2-yl)piperidin-1-yl)but-3-en-1-one, 2,2,3-trimethyl-1-(2-(5-(p-tolyl)-1H-imidazol-2-yl)piperidin-1-yl)butan-1-one, 2,2-dimethyl-1-(2-(5-(p-tolyl)-1H-imidazol-2-yl)piperidin-1-yl)but-3-en-1-one, 2,2-dimethyl-1-(2-(5-(p-tolyl)-1H-imidazol-2-yl)piperidin-1-yl)butan-1-one, 2,3-dimethoxy-1-(2-(4-phenyl-1H-imidazol-2-yl)piperidin-1-yl)propan-1-one, 2,3-dimethyl-1-(2-(4-phenyl-1H-imidazol-2-yl)piperidin-1-yl)butan-1-one, 2,5-difluoro-4-(2-(1-(2-

(methylthio)propanoyl)piperidin-2-yl)-1H-imidazol-4-yl)benzonitrile, 2-amino-1-(2-(5-(p-tolyl)-1H-imidazol-2-yl)piperidin-1-yl)propan-1-one, 2-cyclobutyl-1-(2-(4-phenyl-1H-imidazol-2-yl)piperidin-1-yl)propan-1-one, 2-cyclopentyl-2-ethoxy-1-(2-(4-phenyl-1H-imidazol-2-yl)piperidin-1-yl)ethan-1-one, 2-cyclopropyl-1-(2-(4-phenyl-1H-imidazol-2-yl)piperidin-1-yl)ethan-1-one, 2-cyclopropyl-1-(2-(4-phenyl-1H-imidazol-2-yl)piperidin-1-yl)propan-1-one, 2-cyclopropyl-2-methoxy-1-(2-(4-phenyl-1H-imidazol-2-yl)piperidin-1-yl)ethan-1-one, 2-ethoxy-1-(2-(5-(3-fluorophenyl)-1H-imidazol-2-yl)piperidin-1-yl)propan-1-one, 2-ethyl-1-(2-(4-phenyl-1H-imidazol-2-yl)piperidin-1-yl)but-2-en-1-one, 2-ethyl-1-(2-(4-phenyl-1H-imidazol-2-yl)piperidin-1-yl)butan-1-one, 2-fluoro-4-(2-(1-(2-(methylthio)propanoyl)piperidin-2-yl)-1H-imidazol-5-yl)benzonitrile, 2-mercapto-1-(2-(5-(p-tolyl)-1H-imidazol-2-yl)piperidin-1-yl)propan-1-one, 2-methoxy-1-(2-(4-phenyl-1H-imidazol-2-yl)piperidin-1-yl)butan-1-one, 2-methoxy-1-(2-(4-phenyl-1H-imidazol-2-yl)piperidin-1-yl)propan-1-one, 2-methoxy-1-(2-(5-(p-tolyl)-1H-imidazol-2-yl)piperidin-1-yl)propan-1-one, 2-methyl-1-(2-(4-phenyl-1H-imidazol-2-yl)piperidin-1-yl)butan-1-one, 2-methyl-1-(2-(4-phenyl-1H-imidazol-2-yl)piperidin-1-yl)propan-1-one, 2-methyl-1-(2-(5-(p-tolyl)-1H-imidazol-2-yl)piperidin-1-yl)but-3-en-1-one, 2-methyl-1-(2-(5-(p-tolyl)-1H-imidazol-2-yl)piperidin-1-yl)butan-1-one, 2-methyl-1-(2-(5-(p-tolyl)-1H-imidazol-2-yl)piperidin-1-yl)butane-1,3-dione, 2-methyl-1-(2-(5-(p-tolyl)-1H-imidazol-2-yl)piperidin-1-yl)pentan-1-one, 2-methyl-1-(2-(5-(p-tolyl)-1H-imidazol-2-yl)piperidin-1-yl)prop-2-en-1-one, 2-methyl-1-(2-(5-(p-tolyl)-1H-imidazol-2-yl)piperidin-1-yl)propan-1-one, 2-methyl-2-(methylthio)-1-(2-(5-(p-tolyl)-1H-imidazol-2-yl)piperidin-1-yl)propan-1-one, 2-methyl-3-(methylthio)-1-(2-(4-phenyl-1H-imidazol-2-yl)piperidin-1-yl)propan-1-one, 2-methylene-1-(2-(5-(p-tolyl)-1H-imidazol-2-yl)piperidin-1-yl)butan-1-one, 3-(2-(1-(2-(methylthio)propanoyl)piperidin-2-yl)-1H-imidazol-4-yl)benzonitrile, 3,3,3-trifluoro-2-methyl-1-(2-(4-phenyl-1H-imidazol-2-yl)piperidin-1-yl)propan-1-one, 3,3,4,4,4-pentafluoro-1-(2-(4-phenyl-1H-imidazol-2-yl)piperidin-1-yl)butan-1-one, 3,3-difluoro-1-(2-(4-phenyl-1H-imidazol-2-yl)piperidin-1-yl)butan-1-one, 3-fluoro-4-(2-(1-(2-(methylthio)propanoyl)piperidin-2-yl)-1H-imidazol-5-yl)benzonitrile, 3-methyl-1-(2-(4-phenyl-1H-imidazol-2-yl)piperidin-1-yl)but-2-en-1-one, 3-methyl-1-(2-(4-phenyl-1H-imidazol-2-yl)piperidin-1-yl)butan-1-one, 4-(2-(1-(2-(methylthio)propanoyl)piperidin-2-yl)-1H-imidazol-4-yl)benzonitrile, 4-(2-(1-(2-

(methylthio)propanoyl)piperidin-2-yl)-1H-imidazol-5-yl)benzaldehyde, 4,4,4-trifluoro-2-methyl-1-(2-(4-phenyl-1H-imidazol-2-yl)piperidin-1-yl)butan-1-one, bicyclo[1.1.1]pentan-1-yl(2-(4-phenyl-1H-imidazol-2-yl)piperidin-1-yl)methanone, cyclobutyl(2-(5-(3-fluorophenyl)-1H-imidazol-2-yl)piperidin-1-yl)methanone, cyclopentyl(2-(4-phenyl-1H-imidazol-2-yl)piperidin-1-yl)methanone, cyclopropyl(2-(4-phenyl-1H-imidazol-2-yl)piperidin-1-yl)methanone, methyl 4-(2-(1-(2-(methylthio)propanoyl)piperidin-2-yl)-1H-imidazol-5-yl)benzoate, N-(2-hydroxyethyl)-4-(2-(1-(2-(methylthio)propanoyl)piperidin-2-yl)-1H-imidazol-4-yl)benzenesulfonamide, 2-(methylthio)-1-(2-(5-(3-nitrophenyl)-1H-imidazol-2-yl)piperidin-1-yl)propan-1-one, N-(4-(2-(1-(2-(methylthio)propanoyl)piperidin-2-yl)-1H-imidazol-4-yl)phenyl)methane-sulfonamide, 2-(methylthio)-1-(2-(5-(4-nitrophenyl)-1H-imidazol-2-yl)piperidin-1-yl)propan-1-one, 1-(sec-butylsulfinyl)-2-(5-(p-tolyl)-1H-imidazol-2-yl)piperidine, 1-(sec-butylsulfonyl)-2-(5-(p-tolyl)-1H-imidazol-2-yl)piperidine, 1-(isopropylsulfinyl)-2-(5-(p-tolyl)-1H-imidazol-2-yl)piperidine, 1-(isopropylsulfonyl)-2-(5-(p-tolyl)-1H-imidazol-2-yl)piperidine, 1-((1-(methylthio)ethyl)sulfinyl)-2-(5-(p-tolyl)-1H-imidazol-2-yl)piperidine, 1-((1-(methylthio)ethyl)sulfonyl)-2-(5-(p-tolyl)-1H-imidazol-2-yl)piperidine, 1-((2-(methylthio)propan-2-yl)sulfinyl)-2-(5-(p-tolyl)-1H-imidazol-2-yl)piperidine, 1-((2-(methylthio)propan-2-yl)sulfonyl)-2-(5-(p-tolyl)-1H-imidazol-2-yl)piperidine, 1-(but-3-en-2-ylsulfinyl)-2-(5-(p-tolyl)-1H-imidazol-2-yl)piperidine, 1-(but-3-en-2-ylsulfonyl)-2-(5-(p-tolyl)-1H-imidazol-2-yl)piperidine, 1-(pent-3-en-2-ylsulfinyl)-2-(5-(p-tolyl)-1H-imidazol-2-yl)piperidine, 1-(pent-3-en-2-ylsulfonyl)-2-(5-(p-tolyl)-1H-imidazol-2-yl)piperidine, 1-((2-methylbut-3-en-2-yl)sulfinyl)-2-(5-(p-tolyl)-1H-imidazol-2-yl)piperidine, 1-((2-methylbut-3-en-2-yl)sulfonyl)-2-(5-(p-tolyl)-1H-imidazol-2-yl)piperidine, 1-(2-(5-(4-(hydroxymethyl)-phenyl)-1H-imidazol-2-yl)piperidin-1-yl)-2-methylbutan-1-one, 2-(methylsulfonyl)-1-(2-(5-(p-tolyl)-1H-imidazol-2-yl)piperidin-1-yl)propan-1-one, 1-(4-hydroxy-2-(5-(p-tolyl)-1H-imidazol-2-yl)piperidin-1-yl)-2-(methylthio)propan-1-one, 1-(5-hydroxy-2-(5-(p-tolyl)-1H-imidazol-2-yl)piperidin-1-yl)-2-(methylthio)propan-1-one, 1-(4-hydroxy-2-(5-(p-tolyl)-1H-imidazol-2-yl)piperidin-1-yl)-2-methylbutan-1-one, 1-(5-hydroxy-2-(5-(p-tolyl)-1H-imidazol-2-yl)piperidin-1-yl)-2-methylbutan-1-one, 1-(2-(5-(4-(hydroxymethyl)phenyl)-1H-imidazol-2-yl)piperidin-1-yl)-2-(methylsulfonyl)propan-1-one, 1-(4-hydroxy-2-(5-(p-tolyl)-1H-imidazol-2-yl)piperidin-1-yl)-2-(methylsulfonyl)propan-1-one, 1-(5-hydroxy-2-(5-(p-tolyl)-1H-

imidazol-2-yl)piperidin-1-yl)-2-(methylsulfonyl)propan-1-one, 1-(2-hydroxy-6-(5-(p-tolyl)-1H-imidazol-2-yl)piperidin-1-yl)-2-(methylthio)propan-1-one, 1-(2-hydroxy-6-(5-(p-tolyl)-1H-imidazol-2-yl)piperidin-1-yl)-2-methylbutan-1-one, 1-(2-hydroxy-6-(5-(p-tolyl)-1H-imidazol-2-yl)piperidin-1-yl)-2-(methylsulfonyl)propan-1-one, 1-(3-hydroxy-2-(5-(p-tolyl)-1H-imidazol-2-yl)piperidin-1-yl)-2-(methylthio)propan-1-one, 1-(3-hydroxy-2-(5-(p-tolyl)-1H-imidazol-2-yl)piperidin-1-yl)-2-methylbutan-1-one, 1-(3-hydroxy-2-(5-(p-tolyl)-1H-imidazol-2-yl)piperidin-1-yl)-2-(methylsulfonyl)propan-1-one, 1-(2-(5-(4-(hydroxymethyl)phenyl)-1H-imidazol-2-yl)piperidin-1-yl)-2-(methylsulfinyl)propan-1-one, 1-(4-hydroxy-2-(5-(p-tolyl)-1H-imidazol-2-yl)piperidin-1-yl)-2-(methylsulfinyl)propan-1-one, 1-(5-hydroxy-2-(5-(p-tolyl)-1H-imidazol-2-yl)piperidin-1-yl)-2-(methylsulfinyl)propan-1-one, 1-(2-hydroxy-6-(5-(p-tolyl)-1H-imidazol-2-yl)piperidin-1-yl)-2-(methylsulfinyl)propan-1-one, 1-(3-hydroxy-2-(5-(p-tolyl)-1H-imidazol-2-yl)piperidin-1-yl)-2-(methylsulfinyl)propan-1-one, 1-(2-hydroxy-6-(5-(4-(hydroxymethyl)phenyl)-1H-imidazol-2-yl)piperidin-1-yl)-2-(methylthio)propan-1-one, 1-(5-hydroxy-2-(5-(4-(hydroxymethyl)phenyl)-1H-imidazol-2-yl)piperidin-1-yl)-2-(methylthio)propan-1-one, 1-(4-hydroxy-2-(5-(4-(hydroxymethyl)phenyl)-1H-imidazol-2-yl)piperidin-1-yl)-2-(methylthio)propan-1-one, 1-(3-hydroxy-2-(5-(4-(hydroxymethyl)-phenyl)-1H-imidazol-2-yl)piperidin-1-yl)-2-(methylthio)propan-1-one, 1-(2-hydroxy-6-(5-(4-(hydroxymethyl)phenyl)-1H-imidazol-2-yl)piperidin-1-yl)-2-methylbutan-1-one, 1-(5-hydroxy-2-(5-(4-(hydroxymethyl)phenyl)-1H-imidazol-2-yl)piperidin-1-yl)-2-methylbutan-1-one, 1-(4-hydroxy-2-(5-(4-(hydroxymethyl)phenyl)-1H-imidazol-2-yl)piperidin-1-yl)-2-methylbutan-1-one, 1-(3-hydroxy-2-(5-(4-(hydroxymethyl)phenyl)-1H-imidazol-2-yl)piperidin-1-yl)-2-methylbutan-1-one, 4-(2-(1-(2-methylbutanoyl)piperidin-2-yl)-1H-imidazol-5-yl)benzaldehyde, 4-(2-(1-(2-(methylthio)propanoyl)piperidin-2-yl)-1H-imidazol-5-yl)benzoic acid, 4-(2-(1-(2-methylbutanoyl)piperidin-2-yl)-1H-imidazol-5-yl)benzoic acid, (2,2-dimethylcyclopropyl)(2-(5-(p-tolyl)-1H-imidazol-2-yl)piperidin-1-yl)methanone, 1-(2-(5-bromo-1H-imidazol-2-yl)piperidin-1-yl)-2-methylbutan-1-one, 1-(2-(5-(4-chlorophenyl)-1H-imidazol-2-yl)piperidin-1-yl)-2-methylbutan-1-one, 2-(4-(2-(1-(2-(methylthio)propanoyl)piperidin-2-yl)-1H-imidazol-5-yl)phenyl)acetonitrile, 2-(4-(2-(1-(2-methylbutanoyl)piperidin-2-yl)-1H-imidazol-5-yl)phenyl)acetonitrile, 2-(4-(2-(1-(2-methylbutanoyl)piperidin-2-yl)-1H-imidazol-5-yl)phenyl)acetonitrile, 2,3-dimethyl-1-(2-(5-(p-tolyl)-1H-imidazol-2-

yl)piperidin-1-yl)butan-1-one, 2-methyl-1-(2-(5-(o-tolyl)-1H-imidazol-2-yl)piperidin-1-yl)butan-1-one, 2-methyl-1-(2-(5-(m-tolyl)-1H-imidazol-2-yl)piperidin-1-yl)butan-1-one, 1-(2-(5-(4-(hydroxymethyl)phenyl)-1H-imidazol-2-yl)piperidin-1-yl)-2-methylbutan-1-one, 1-(isopropylsulfonyl)-2-(5-(p-tolyl)-1H-imidazol-2-yl)piperidine, 1-(sec-butylsulfonyl)-2-(5-(p-tolyl)-1H-imidazol-2-yl)piperidine, 2-methyl-1-(2-(5-(5-methylthiophen-2-yl)-1H-imidazol-2-yl)piperidin-1-yl)butan-1-one, 2-(methylthio)-1-(2-(5-(p-tolyl)-1H-imidazol-2-yl)piperazin-1-yl)propan-1-one, 2-(methylthio)-1-(2-(4-(p-tolyl)oxazol-2-yl)piperidin-1-yl)propan-1-one, and 2-methyl-1-(2-(4-(p-tolyl)oxazol-2-yl)piperidin-1-yl)butan-1-one.