

Claims:

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



wherein:

R¹ is selected from hydrogen, C₁₋₄-alkyl, cyano, -COR³, -CONR³R⁴ and heteroaryl, wherein

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(a) said heteroaryl is optionally substituted with one more substituents independently selected from halogen, hydroxy, cyano, nitro, C₁₋₄-alkyl, C₃₋₅-cycloalkyl, C₁₋₄-alkoxy, fluoro-C₁₋₆-alkyl, fluoro-C₁₋₄-alkoxy, C₁₋₄-alkoxy-C₁₋₄-alkyl, fluoro-C₁₋₄-alkoxy-C₁₋₄-alkyl, C₆₋₁₀-aryl, heteroaryl, -NR^{5A}R^{5B}, -C₁₋₄-alkyl-NR^{5A}R^{5B}, -NR⁴C(O)O-C₁₋₄-alkyl, -NR⁴C(O)-C₁₋₄-alkyl, -NR⁴C(O)O-fluoro-C₁₋₄-alkyl, -NR⁴C(O)-fluoro-C₁₋₄-alkyl, -NR⁴C(O)NR^{5A}R^{5B}, -C(O)NR^{5A}R^{5B}, -C(O)R⁴, -C(O)OR⁴, -NR⁴S(O)₂-C₁₋₄-alkyl and -NR⁴S(O)₂-fluoro-C₁₋₄-alkyl, and

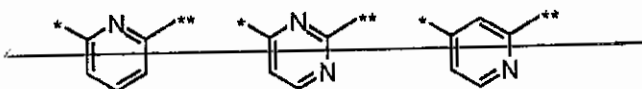
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(b) said C₁₋₄-alkyl is optionally substituted with one or more substituents independently selected from fluorine, hydroxyl and C₁₋₄-alkoxy;

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X is selected from radicals of formulae (A)-(F) inclusive, any of which being optionally substituted with one more substituents independently selected from halogen, cyano, nitro, C₁₋₄-alkyl, C₁₋₄-alkoxy, fluoro-C₁₋₄-alkyl and fluoro-C₁₋₄-alkoxy, wherein the bond marked * is attached to R¹ and the bond marked ** is attached to Y:

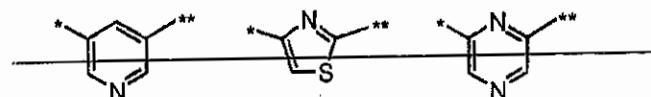
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(A)

(B)

(C)



(D)

(E)

(F)

Y is selected from radicals of formulae (H), (J), (K), (L) and (M) any of which is optionally substituted with one more substituents independently selected from fluorine, hydroxyl, C₁₋₄-

~~(ii) said C₆₋₁₀-aryl or heteroaryl, or the C₆₋₁₀-aryl part of said C₆₋₁₀-aryl-C₁₋₄-alkyl or the heteroaryl part of said heteroaryl-C₁₋₄-alkyl, is optionally substituted with one more substituents independently selected from halogen, hydroxy, cyano, nitro, C₁₋₄-alkyl, C₁.~~

~~4-alkoxy, fluoro-C₁₋₄-alkyl, fluoro-C₁₋₄-alkoxy, C₁₋₄-alkoxy-C₁₋₄-alkyl, fluoro-C₁₋₄-alkoxy-C₁₋₄-alkyl, NR^{5A}R^{5B}, C₁₋₄-alkyl-NR^{5A}R^{5B}, NR⁴C(O)O-C₁₋₄alkyl, -NR⁴C(O)-C₁₋₄alkyl, -NR⁴C(O)O-fluoro-C₁₋₄alkyl, -NR⁴C(O)-fluoro-C₁₋₄alkyl, -NR⁴C(O)NR^{5A}R^{5B}, -C(O)NR^{5A}R^{5B}, -C(O)R⁴, -C(O)OR⁴, -NR⁴S(O)₂-C₁₋₄alkyl and -NR⁴S(O)₂-fluoro-C₁₋₄alkyl;~~

~~R⁴, R^{5A} and R^{5B} are each independently selected from hydrogen, C₁₋₄-alkyl and fluoro-C₁₋₄-alkyl;~~

~~or~~

~~10 R^{5A} and R^{5B} together with the nitrogen atom to which they are bound, form a 4- to 7-membered saturated heterocyclic ring or a heteroaryl ring, said ring being optionally substituted with one or more substituents independently selected from fluorine, hydroxyl, C₁₋₄-alkyl, fluoro-C₁₋₄-alkyl and C₁₋₄-alkoxy;~~

~~or~~

~~15 R³ and R⁴, together with the nitrogen atom to which they are bound, form a 4- to 7-membered saturated heterocyclic ring or a heteroaryl ring, said ring being optionally substituted with one or more substituents independently selected from fluorine, hydroxyl, C₁₋₄-alkyl, fluoro-C₁₋₄-alkyl and C₁₋₄-alkoxy; and~~

~~20 R⁶ is selected from C₁₋₆-alkyl, C₃₋₅-cycloalkyl, C₃₋₅-cycloalkyl-C₁₋₄-alkyl, heterocyclyl, heterocyclyl-C₁₋₄-alkyl, C₆₋₁₀-aryl-C₁₋₄-alkyl and C₆₋₁₀-aryl, wherein~~

~~(iii) said C₁₋₆-alkyl, C₃₋₅-cycloalkyl, heterocyclyl, or the C₁₋₆-alkyl part of said heterocyclyl-C₁₋₄-alkyl or C₆₋₁₀-aryl-C₁₋₄-alkyl, or the heterocyclyl part of said~~

~~25 heterocyclyl-C₁₋₄-alkyl is optionally substituted with one or more substituents independently selected from fluorine, hydroxyl and C₁₋₄-alkoxy, and~~

~~(iv) said C₆₋₁₀-aryl or the C₆₋₁₀-aryl part of said C₆₋₁₀-aryl-C₁₋₄-alkyl is optionally substituted with one or more substituents independently selected from halogen, hydroxy,~~

~~30 cyano, nitro, C₁₋₄-alkyl, C₁₋₄-alkoxy, fluoro-C₁₋₄-alkyl, fluoro-C₁₋₄-alkoxy, C₁₋₄-alkoxy-C₁₋₄-alkyl and fluoro-C₁₋₄-alkoxy-C₁₋₄-alkyl;~~

~~R⁷ is selected from C₁₋₆-alkyl, C₃₋₅-cycloalkyl, C₃₋₅-cycloalkyl-C₁₋₄-alkyl, heterocyclyl, heterocyclyl-C₁₋₄-alkyl, C₆₋₁₀-aryl-C₁₋₄-alkyl and C₆₋₁₀-aryl and~~

~~35 -NR^{10A}R^{10B}, wherein~~

(v) said C_{1-6} -alkyl, C_{3-5} -cycloalkyl, heterocyclyl, or the C_{1-6} -alkyl part of said heterocyclyl C_{1-4} -alkyl or C_{6-10} -aryl C_{1-4} -alkyl, or the heterocyclyl part of said heterocyclyl C_{1-4} -alkyl is optionally substituted with one or more substituents
5 independently selected from fluorine, hydroxyl and C_{1-4} -alkoxy, and

(vi) said C_{6-10} -aryl or the C_{6-10} -aryl part of said C_{6-10} -aryl C_{1-4} -alkyl is optionally substituted with one more substituents independently selected from halogen, hydroxy, cyano, nitro, C_{1-4} -alkyl, C_{1-4} -alkoxy, fluoro C_{1-4} -alkyl, fluoro C_{1-4} -alkoxy, C_{1-4} -alkoxy-
10 C_{1-4} -alkyl and fluoro C_{1-4} -alkoxy C_{1-4} -alkyl;

R^{8A} , R^{8B} and R^9 are each independently selected from hydrogen, C_{3-5} -cycloalkyl, C_{1-6} -alkyl, and C_{6-10} -aryl C_{1-4} -alkyl wherein any alkyl residue or cycloalkyl or C_{6-10} -aryl ring system is optionally substituted with one or more substituents independently selected from halogen,
15 hydroxyl and C_{1-4} -alkoxy,

or

R^{8A} and R^{8B} , together with the nitrogen atom to which they are bound, form a 4- to 7-
membered saturated heterocyclic ring which is optionally fused to a C_{6-10} -aryl or heteroaryl
ring system, the 4- to 7- membered saturated heterocyclic ring or the C_{6-10} -aryl or heteroaryl
20 ring systems being optionally substituted with one or more substituents independently selected
from halogen, hydroxyl, C_{1-4} -alkyl, fluoro C_{1-4} -alkyl and C_{1-4} -alkoxy, and

R^{10A} and R^{10B} are each independently selected from hydrogen and C_{1-6} -alkyl, wherein said C_{1-6} -
alkyl is optionally substituted with one or more substituents independently selected from
25 fluorine, hydroxyl and C_{1-4} -alkoxy,

or

R^{10A} and R^{10B} , together with the nitrogen atom to which they are bound, form a 4- to 7-
membered saturated heterocyclic ring or a heteroaryl ring, optionally substituted with one or
more substituents independently selected from fluorine, hydroxyl, C_{1-4} -alkyl, fluoro C_{1-4} -alkyl
30 and C_{1-4} -alkoxy; provided that

when Y is a piperazine of formula (II) wherein $n = 1$, then R^2 is not piperidine wherein $p = 1$,
and $o = 2$; and

~~WO 2012/049277~~

~~188~~

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~~when Y is a piperazine of formula (H) wherein n = 1 then R² is not an alkyl amino of formula (S).~~

~~2. A compound as claimed in claim 1 wherein R¹ is CONR³R⁴ or heteroaryl wherein said heteroaryl is optionally substituted with one more substituents independently selected from halogen, cyano, C₁₋₆-alkyl, C₃₋₅-cycloalkyl, C₁₋₄-alkoxy, fluoro-C₁₋₆-alkyl, fluoro-C₁₋₄-alkoxy and heteroaryl.~~

~~3. A compound as claimed in claim 2 wherein R¹ is heteroaryl selected from benzoxazolyl, indolyl, azaindolyl, imidazolyl, benzimidazolyl, oxazolyl, oxadiazolyl, tetrazolyl, any of which being optionally substituted as specified in claim 1 for R¹ when heteroaryl.~~

~~4. A compound as claimed in claim 1 wherein R¹ is CONR³R⁴ wherein R⁴ is hydrogen or methyl.~~

~~15~~

~~5. A compound as claimed in claim 4 wherein R³ is tetrahydropyranyl, isopropylmethyl, tetrahydropyranylmethyl, imidazolylethyl, methoxyethyl, N-methylimidazolylmethyl, tetrahydrofuranylmethyl, 1-fluoroethyl, oxazolymethyl, pyridylmethyl, 2,2-difluoromethyl, tetrahydrofuranyl, methyl, ethyl, n- or iso-propyl, n-sec- or tert-butyl, cyclopropyl, hydroxyethyl, cyanoethyl, phenyl, chlorophenyl, methoxyphenyl, methylphenyl, hydroxyphenyl, thiazolylmethyl, indolyl, methoxypropyl, tetrahydroisoquinolyl, furylmethyl, pyridylethyl, thiazolyl, cyclopropylmethyl.~~

~~6. A compound according to claim 4 wherein R³ is pyridyl optionally substituted with one or more substituents selected from halogen, C₁₋₄-alkyl, C₁₋₄-alkoxy, fluoro-C₁₋₄-alkyl.~~

~~7. A compound according to claim 4 where R³ is 4-pyridyl optionally substituted with one or more methyl groups.~~

~~8. A compound as claimed in any of the preceding claims wherein X is a 2,6-pyridyl radical of formula (A).~~

~~9. A compound as claimed in any of the preceding claims wherein Y is a homopiperazine radical of formula (H) when n is 2, optionally substituted with one more substituents independently selected from fluorine, hydroxyl, C₁₋₄-alkyl, a divalent C₁₋₄-alkylene radical~~

WO 2012/049277

189

PCT/EP2011/067946

which forms a bridge between ring carbons of said homopiperazine or piperazine, C₁₋₄-alkoxy, fluoro-C₁₋₄-alkyl or a divalent fluoro-C₁₋₄-alkylene radical which forms a bridge between ring carbons of said homopiperazine or piperazine, and fluoro-C₁₋₄-alkoxy.

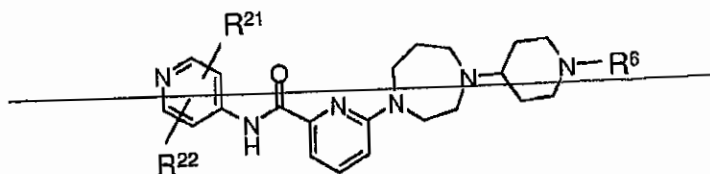
10. A compound as claimed in any one of claims 1 to 8 wherein Y is a piperazine radical of formula (H) when n is 1, optionally substituted with one more substituents independently selected from fluorine, hydroxyl, C₁₋₄-alkyl, a divalent C₁₋₄-alkylene radical which forms a bridge between ring carbons of said homopiperazine or piperazine, C₁₋₄-alkoxy, fluoro-C₁₋₄-alkyl or a divalent fluoro-C₁₋₄-alkylene radical which forms a bridge between ring carbons of said homopiperazine or piperazine, and fluoro-C₁₋₄-alkoxy.

11. A compound as claimed in claim 9 wherein R² is a 4-piperidine radical of formula (N) wherein o is 2 and p is 1, a 4-azepine radical of formula (N) wherein o is 2 and p is 2, a 1,4-cyclohexyl radical of formula (R) or a -CH₂morpholin-3-yl radical of formula (Q) wherein W is O, said 4-piperidine, 4-azepine, 1,4-cyclohexyl and -CH₂morpholin-3-yl radicals being optionally substituted with one more substituents independently selected from fluorine, hydroxyl, C₁₋₄-alkyl, C₁₋₄-alkoxy, fluoro-C₁₋₄-alkyl and fluoro-C₁₋₄-alkoxy.

12. A compound as claimed in claim 10 wherein R² is a 4-azepine radical of formula (N) wherein o is 2 and p is 2, a 1,4-cyclohexyl radical of formula (R) or a -CH₂morpholin-3-yl radical of formula (Q) wherein W is O, said 4-azepine, 1,4-cyclohexyl and -CH₂morpholin-3-yl radicals being optionally substituted with one more substituents independently selected from fluorine, hydroxyl, C₁₋₄-alkyl, C₁₋₄-alkoxy, fluoro-C₁₋₄-alkyl and fluoro-C₁₋₄-alkoxy.

13. A compound as claimed in any of the preceding claims wherein R⁶ is selected from hydrogen, halogen, C₁₋₆-alkyl, C₁₋₆-fluoroalkyl, C₁₋₄-alkoxy, C₁₋₂-alkoxy-C₁₋₄-alkyl, C₃₋₅-cycloalkyl, C₃₋₅-fluorocycloalkyl, benzyl, alpha-methyl-benzyl, and benzyl or alpha-methyl-benzyl either of which being optionally ring-substituted by one or two substituents selected from halogen, C₁₋₄-alkyl, C₁₋₄-alkoxy,

14. A compound as claimed in claim 1 having formula (IA):



(IA)

wherein R⁶ is as defined in claim 1, and R²¹ and R²² are independently selected from hydrogen, halogen, C₁₋₆-alkyl, C₁₋₆-fluoroalkyl, C₁₋₄-alkoxy, C₁₋₂-alkoxy-C₁₋₄-alkyl, C₃₋₅-cycloalkyl, C₃₋₅-fluorocycloalkyl, benzyl, alpha-methyl-benzyl, and benzyl or alpha-methyl-benzyl either of which being optionally ring-substituted by one or two substituents selected from halogen, C₁₋₄-alkyl, or C₁₋₄-alkoxy;

15. A compound as claimed in claim 12 wherein R²¹ and R²² are independently selected from hydrogen and methyl, and R⁶ is isopropyl.
16. A compound as claimed in any of the preceding claims having the structural formula of any of the examples.
17. A pharmaceutical composition comprising a compound as claimed in any of the preceding claims, together with one or more pharmaceutically acceptable carriers and/or excipients.
18. The use of a compound as claimed in any of claims 1 to 16 in the preparation of a composition for treatment of a condition responsive to the reduction of CXCR4 mediated activity.
14. A method of treatment of a condition responsive to the reduction of CXCR4 mediated activity in a subject, comprising administering to the subject an amount of a compound as claimed in any of claims 1 to 11 effective to reduce such CXCR4 mediated activity.
15. The use as claimed in claim 13 or a method as claimed in claim 14, wherein the condition is cancer including cancers of the haematopoietic system such as multiple myeloma and non-Hodgkin's lymphoma, non-small cell lung, breast and neuroblastoma, cancer metastasis, HIV/AIDS, neuropathy, HIV-related neuropathy, pain, inflammation, brain inflammation, neurodegeneration, cognitive degeneration, diabetic retinopathy, age related macular degeneration, retinal neo-vascularisation, and viral infections.

~~16. The use of a compound as claimed in any of claims 1 to 11 in an apheresis procedure for promoting release and mobilisation of stem cells, including haematopoietic and non-haematopoietic stem cells and progenitor stem cells prior to harvesting.~~

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~~17. The use of a compound as claimed in any of claims 1 to 11 and G-CSF in an apheresis procedure for promoting release and mobilisation of stem cells, including haematopoietic and non-haematopoietic stem cells and progenitor stem cells prior to harvesting.~~

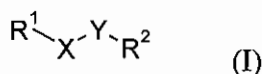
~~10 18. The use according to claim 17 wherein the said apheresis procedure is implemented prior to treatment of a subject by chemotherapy or radiotherapy, for reducing chemotherapy or radiotherapy-induced leukopenia.~~

~~15 19. The use according to claim 15 wherein the said compound is administered as an adjunct to chemotherapy or radiotherapy to sensitize tumours to such chemotherapy or radiotherapy.~~

~~20. The use according to claim 15 for inhibition of neo-vascularisation, angiogenesis, or vasculogenesis.~~

Proposed Amendment filed in response to 1st Office action in Singapore

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



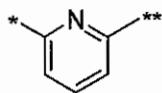
wherein:

R^1 is selected from hydrogen, ~~C₁₋₄-alkyl~~, cyano, $-COR^3$, $-CONR^3R^4$ and heteroaryl, wherein

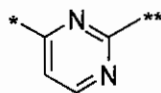
(a) said heteroaryl is optionally substituted with one more substituents independently selected from halogen, hydroxy, cyano, nitro, C₁₋₆-alkyl, C₃₋₅-cycloalkyl, C₁₋₄-alkoxy, fluoro-C₁₋₆-alkyl, fluoro-C₁₋₄-alkoxy, C₁₋₄-alkoxy-C₁₋₄-alkyl, fluoro-C₁₋₄-alkoxy-C₁₋₄-alkyl, C₆₋₁₀-aryl, heteroaryl, $-NR^{5A}R^{5B}$, $-C_{1-4}$ -alkyl- $-NR^{5A}R^{5B}$, $-NR^4C(O)O-C_{1-4}$ -alkyl, $-NR^4C(O)-C_{1-4}$ -alkyl, $-NR^4C(O)O$ -fluoro-C₁₋₄-alkyl, $-NR^4C(O)$ -fluoro-C₁₋₄-alkyl, $-NR^4C(O)NR^{5A}R^{5B}$, $-C(O)NR^{5A}R^{5B}$, $-C(O)R^4$, $-C(O)OR^4$, $-NR^4S(O)_2-C_{1-4}$ -alkyl and $-NR^4S(O)_2$ -fluoro-C₁₋₄-alkyl, and

(b) said C₁₋₄-alkyl is optionally substituted with one or more substituents independently selected from fluorine, hydroxyl and C₁₋₄-alkoxy;

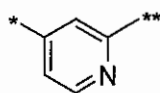
X is selected from radicals of formulae (A)-(F) inclusive, any of which being optionally substituted with one more substituents independently selected from halogen, cyano, nitro, C₁₋₄-alkyl, C₁₋₄-alkoxy, fluoro-C₁₋₄-alkyl and fluoro-C₁₋₄-alkoxy, wherein the bond marked * is attached to R^1 and the bond marked ** is attached to Y:



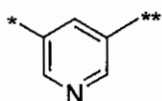
(A)



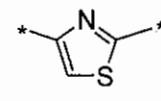
(B)



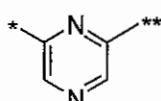
(C)



(D)



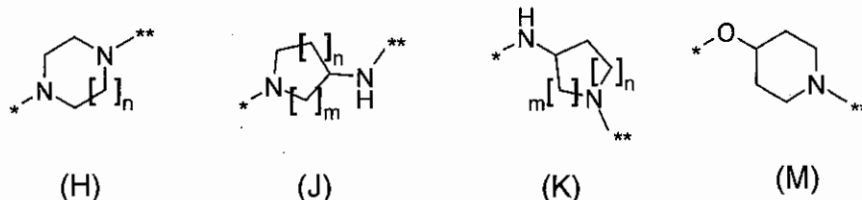
(E)



(F)

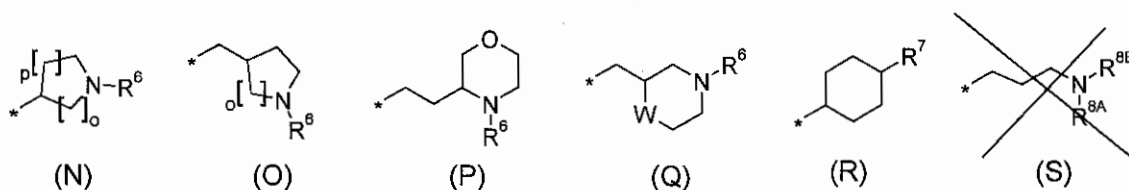
Y is selected from radicals of formulae (H), (J), (K), and (M) any of which is optionally substituted with one more substituents independently selected from fluorine, hydroxyl, C₁₋₄-

alkyl, a divalent C_{1-4} -alkylene radical which forms a bridge between ring carbons of said homopiperazine or piperazine, C_{1-4} -alkoxy, fluoro- C_{1-4} -alkyl, a divalent fluoro- C_{1-4} -alkylene radical which forms a bridge between ring carbons of said homopiperazine or piperazine and fluoro- C_{1-4} -alkoxy, wherein the bond marked * is attached to X and the bond marked ** is attached to R^2 :



and n and m are each independently 1 or 2;

R^2 is selected from radicals of formulae (N)-(SR) inclusive, any of which is optionally substituted with one more substituents independently selected from fluorine, hydroxyl, C_{1-4} -alkyl, C_{1-4} -alkoxy, fluoro- C_{1-4} -alkyl and fluoro- C_{1-4} -alkoxy, wherein the bond marked * is attached to Y:



and o and p are each independently 1 or 2, and W is O or NR^9 ;

R^3 is selected from hydrogen, C_{1-6} -alkyl, C_{3-5} -cycloalkyl, C_{3-5} -cycloalkyl- C_{1-4} -alkyl, heterocyclyl, heterocyclyl- C_{1-4} -alkyl, C_{6-10} -aryl, heteroaryl, C_{6-10} -aryl- C_{1-4} -alkyl and heteroaryl- C_{1-4} -alkyl, wherein

(i) said C_{1-6} -alkyl, C_{3-5} -cycloalkyl, heterocyclyl or the heterocyclyl part of said heterocyclyl- C_{1-4} -alkyl, or the ~~C_{1-6} -alkyl~~ C_{1-4} -alkyl part of said heterocyclyl- C_{1-4} -alkyl, C_{6-10} -aryl- C_{1-4} -alkyl or heteroaryl- C_{1-4} -alkyl, is optionally substituted with one or more substituents independently selected from fluorine, hydroxy, cyano, C_{1-4} -alkoxy and $-NR^{5A}R^{5B}$, and

(ii) said C_{6-10} -aryl or heteroaryl, or the C_{6-10} -aryl part of said C_{6-10} -aryl- C_{1-4} -alkyl or the heteroaryl part of said heteroaryl- C_{1-4} -alkyl, is optionally substituted with one more substituents independently selected from halogen, hydroxy, cyano, nitro, C_{1-4} -alkyl, C_{1-}

4-alkoxy, fluoro-C₁₋₄-alkyl, fluoro-C₁₋₄-alkoxy, C₁₋₄-alkoxy-C₁₋₄-alkyl, fluoro-C₁₋₄-alkoxy-C₁₋₄-alkyl, -NR^{5A}R^{5B}, -C₁₋₄-alkyl-NR^{5A}R^{5B}, -NR⁴C(O)O-C₁₋₄alkyl, -NR⁴C(O)-C₁₋₄alkyl, -NR⁴C(O)O-fluoro-C₁₋₄alkyl, -NR⁴C(O)-fluoro-C₁₋₄alkyl, -NR⁴C(O)NR^{5A}R^{5B}, -C(O)NR^{5A}R^{5B}, -C(O)R⁴, -C(O)OR⁴, -NR⁴S(O)₂-C₁₋₄alkyl and -NR⁴S(O)₂-fluoro-C₁₋₄alkyl;

R⁴, R^{5A} and R^{5B} are each independently selected from hydrogen, C₁₋₄-alkyl and fluoro-C₁₋₄-alkyl,

or

R^{5A} and R^{5B} together with the nitrogen atom to which they are bound, form a 4- to 7-membered saturated heterocyclic ring or a heteroaryl ring, said ring being optionally substituted with one or more substituents independently selected from fluorine, hydroxyl, C₁₋₄-alkyl, fluoro-C₁₋₄-alkyl and C₁₋₄-alkoxy,

or

R³ and R⁴, together with the nitrogen atom to which they are bound, form a 4- to 7-membered saturated heterocyclic ring or a heteroaryl ring, said ring being optionally substituted with one or more substituents independently selected from fluorine, hydroxyl, C₁₋₄-alkyl, fluoro-C₁₋₄-alkyl and C₁₋₄-alkoxy; and

R⁶ is selected from C₁₋₆-alkyl, C₃₋₅-cycloalkyl, C₃₋₅-cycloalkyl-C₁₋₄-alkyl, heterocyclyl, heterocyclyl-C₁₋₄-alkyl, C₆₋₁₀-aryl-C₁₋₄-alkyl and C₆₋₁₀-aryl, wherein

(iii) said C₁₋₆-alkyl, C₃₋₅-cycloalkyl, heterocyclyl, or the ~~C₁₋₆-alkyl~~ C₁₋₄-alkyl part of said heterocyclyl-C₁₋₄-alkyl or C₆₋₁₀-aryl-C₁₋₄-alkyl, or the heterocyclyl part of said heterocyclyl-C₁₋₄-alkyl is optionally substituted with one or more substituents independently selected from fluorine, hydroxyl and C₁₋₄-alkoxy, and

(iv) said C₆₋₁₀-aryl or the C₆₋₁₀-aryl part of said C₆₋₁₀-aryl-C₁₋₄-alkyl is optionally substituted with one or more substituents independently selected from halogen, hydroxy, cyano, nitro, C₁₋₄-alkyl, C₁₋₄-alkoxy, fluoro-C₁₋₄-alkyl, fluoro-C₁₋₄-alkoxy, C₁₋₄-alkoxy-C₁₋₄-alkyl and fluoro-C₁₋₄-alkoxy-C₁₋₄-alkyl;

R⁷ is selected from C₁₋₆-alkyl, C₃₋₅-cycloalkyl, C₃₋₅-cycloalkyl-C₁₋₄-alkyl, heterocyclyl, heterocyclyl-C₁₋₄-alkyl, C₆₋₁₀-aryl-C₁₋₄-alkyl and C₆₋₁₀-aryl and -NR^{10A}R^{10B}, wherein

(v) said C₁₋₆-alkyl, C₃₋₅-cycloalkyl, heterocyclyl, or the ~~C₁₋₆-alkyl~~ C₁₋₄-alkyl part of said heterocyclyl-C₁₋₄-alkyl or C₆₋₁₀-aryl-C₁₋₄-alkyl, or the heterocyclyl part of said heterocyclyl-C₁₋₄-alkyl is optionally substituted with one or more substituents independently selected from fluorine, hydroxyl and C₁₋₄-alkoxy, and

(vi) said C₆₋₁₀-aryl or the C₆₋₁₀-aryl part of said C₆₋₁₀-aryl-C₁₋₄-alkyl is optionally substituted with one more substituents independently selected from halogen, hydroxy, cyano, nitro, C₁₋₄-alkyl, C₁₋₄-alkoxy, fluoro-C₁₋₄-alkyl, fluoro-C₁₋₄-alkoxy, C₁₋₄-alkoxy-C₁₋₄-alkyl and fluoro-C₁₋₄-alkoxy-C₁₋₄-alkyl;

R^{8A}, R^{8B} and R⁹ are each independently selected from hydrogen, C₃₋₅-cycloalkyl, C₁₋₆-alkyl, and C₆₋₁₀-aryl-C₁₋₄-alkyl wherein any alkyl residue or cycloalkyl or C₆₋₁₀-aryl ring system is optionally substituted with one or more substituents independently selected from halogen, hydroxyl and C₁₋₄-alkoxy,

or

R^{8A} and R^{8B}, together with the nitrogen atom to which they are bound, form a 4- to 7-membered saturated heterocyclic ring which is optionally fused to a C₆₋₁₀-aryl or heteroaryl ring system, the 4- to 7-membered saturated heterocyclic ring or the C₆₋₁₀-aryl or heteroaryl ring systems being optionally substituted with one or more substituents independently selected from halogen, hydroxyl, C₁₋₄-alkyl, fluoro-C₁₋₄-alkyl and C₁₋₄-alkoxy; and

R^{10A} and R^{10B} are each independently selected from hydrogen and C₁₋₆-alkyl, wherein said C₁₋₆-alkyl is optionally substituted with one or more substituents independently selected from fluorine, hydroxyl and C₁₋₄-alkoxy,

or

R^{10A} and R^{10B}, together with the nitrogen atom to which they are bound, form a 4- to 7-membered saturated heterocyclic ring or a heteroaryl ring, optionally substituted with one or more substituents independently selected from fluorine, hydroxyl, C₁₋₄-alkyl, fluoro-C₁₋₄-alkyl and C₁₋₄-alkoxy; **provided that**

when Y is a piperazine of formula (H) wherein n = 1, then R² is not piperidine wherein p = 1, and o = 2;

and

when Y is a piperazine of formula (H) wherein $n = 1$ then R^2 is not an alkyl amino of formula (S).

2. A compound as claimed in claim 1 wherein R^1 is $CONR^3R^4$ or heteroaryl wherein said heteroaryl is optionally substituted with one more substituents independently selected from halogen, cyano, C_{1-6} -alkyl, C_{3-5} -cycloalkyl, C_{1-4} -alkoxy, fluoro- C_{1-6} -alkyl, fluoro- C_{1-4} -alkoxy and heteroaryl.
3. A compound as claimed in claim 2 wherein R^1 is heteroaryl selected from benzoxazolyl, indolyl, azaindolyl, imidazolyl, benzimidazolyl, oxazolyl, oxadiazolyl, tetrazolyl, any of which being optionally substituted as specified in claim 1 for R^1 when heteroaryl.
4. A compound as claimed in claim 1 wherein R^1 is $CONR^3R^4$ wherein R^4 is hydrogen or methyl.
5. A compound as claimed in claim 4 wherein R^3 is tetrahydropyranyl, isopropylmethyl, tetrahydropyranylmethyl, imidazolylethyl, methoxyethyl, N-methylimidazolylmethyl, tetrahydrofuranylmethyl, 1-fluorothyl, oxazolylmethyl, pyridylmethyl, 2,2-difluoromethyl, tetrahydrofuranyl, methyl, ethyl, n- or iso-propyl, n-sec-or tert-butyl, cyclopropyl, hydroxyethyl, cyanoethyl, phenyl, , chlorophenyl, methoxyphenyl, methylphenyl, hydroxyphenyl, thiazoloylmethyl, indolyl, methoxypropyl, tetrahydroisoquinolyl, furylmethylpyridylethyl, thiazolyl, cyclopropylmethyl.
6. A compound according to claim 4 wherein R^3 is pyridyl optionally substituted with one or more substituents selected from halogen, C_{1-4} -alkyl, C_{1-4} -alkoxy, fluoro- C_{1-4} -alkyl.
7. A compound according to claim 4 where R^3 is 4-pyridyl optionally substituted with one or more methyl groups.
8. A compound as claimed in any of the preceding claims wherein X is a 2,6-pyridyl radical of formula (A)
9. A compound as claimed in any of the preceding claims wherein Y is a homopiperazine radical of formula (H) when n is 2, optionally substituted with one more substituents independently selected from fluorine, hydroxyl, C_{1-4} -alkyl, a divalent C_{1-4} -alkylene radical

which forms a bridge between ring carbons of said homopiperazine or piperazine, C₁₋₄-alkoxy, fluoro-C₁₋₄-alkyl or a divalent fluoro-C₁₋₄-alkylene radical which forms a bridge between ring carbons of said homopiperazine or piperazine, and fluoro-C₁₋₄-alkoxy.

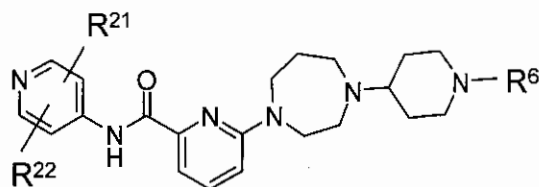
10. A compound as claimed in any one of claims 1 to 8 wherein Y is a piperazine radical of formula (H) when n is 1, optionally substituted with one more substituents independently selected from fluorine, hydroxyl, C₁₋₄-alkyl, a divalent C₁₋₄-alkylene radical which forms a bridge between ring carbons of said homopiperazine or piperazine, C₁₋₄-alkoxy, fluoro-C₁₋₄-alkyl or a divalent fluoro-C₁₋₄-alkylene radical which forms a bridge between ring carbons of said homopiperazine or piperazine, and fluoro-C₁₋₄-alkoxy.

11. A compound as claimed in claim 9 wherein R² is a 4-piperidine radical of formula (N) wherein o is 2 and p is 1, a 4-azepine radical of formula (N) wherein o is 2 and p is 2, a 1,4-cyclohexyl radical of formula (R) or a -CH₂morphilin-3-yl radical of formula (Q) wherein W is O, said 4-piperidine, 4-azepine, 1,4-cyclohexyl and -CH₂morphilin-3-yl radicals being optionally substituted with one more substituents independently selected from fluorine, hydroxyl, C₁₋₄-alkyl, C₁₋₄-alkoxy, fluoro-C₁₋₄-alkyl and fluoro-C₁₋₄-alkoxy.

12. A compound as claimed in claim 10 wherein R² is a 4-azepine radical of formula (N) wherein o is 2 and p is 2, a 1,4-cyclohexyl radical of formula (R) or a -CH₂morphilin-3-yl radical of formula (Q) wherein W is O, said a 4-azepine, 1,4-cyclohexyl and -CH₂morphilin-3-yl radicals being optionally substituted with one more substituents independently selected from fluorine, hydroxyl, C₁₋₄-alkyl, C₁₋₄-alkoxy, fluoro-C₁₋₄-alkyl and fluoro-C₁₋₄-alkoxy.

13. A compound as claimed in any of the preceding claims wherein R⁶ is selected from hydrogen, halogen, C₁₋₆-alkyl, C₁₋₆ fluoroalkyl, C₁₋₄-alkoxy, C₁₋₂-alkoxy- C₁₋₄alkyl, C₃₋₅ cycloalkyl, C₃₋₅ fluorocycloalkyl, benzyl, alpha methyl-benzyl, and benzyl or alpha methyl-benzyl either of which being optionally ring-substituted by one or two substituents selected from halogen, C₁₋₄-alkyl, C₁₋₄-alkoxy,

14. A compound as claimed in claim 1 having formula (IA):



(IA)

wherein R^6 is as defined in claim 1, and R^{21} and R^{22} are independently selected from hydrogen, halogen, C_{1-6} -alkyl, C_{1-6} fluoroalkyl, C_{1-4} -alkoxy, C_{1-2} -alkoxy- C_{1-4} alkyl, C_{3-5} cycloalkyl, C_{3-5} fluorocycloalkyl, benzyl, alpha methyl-benzyl, and benzyl or alpha methyl-benzyl either of which being optionally ring-substituted by one or two substituents selected from halogen, C_{1-4} -alkyl, or C_{1-4} -alkoxy,

15. A compound as claimed in claim 12 wherein R^{21} and R^{22} are independently selected from hydrogen and methyl, and R^6 is isopropyl.

16. A compound as claimed in any of the preceding claims having the structural formula of any of the examples claim 1 selected from any one of the group consisting of:

N-(Oxan-4-ylmethyl)-6-{4-[1-(propan-2-yl)piperidin-4-yl]-1,4-diazepan-1-yl}pyridine-2-carboxamide;

N-(Oxan-4-yl)-6-{4-[1-(propan-2-yl)piperidin-4-yl]-1,4-diazepan-1-yl}pyridine-2-carboxamide;

N-[3-(1H-Imidazol-1-yl)propyl]-6-{4-[1-(propan-2-yl)piperidin-4-yl]-1,4-diazepan-1-yl}pyridine-2-carboxamide;

N-Ethyl-6-{4-[1-(propan-2-yl)piperidin-4-yl]-1,4-diazepan-1-yl}pyridine-2-carboxamide;

6-{4-[1-(Propan-2-yl)piperidin-4-yl]-1,4-diazepan-1-yl}-N-propylpyridine-2-carboxamide;

N-(2-Methylpropyl)-6-{4-[1-(propan-2-yl)piperidin-4-yl]-1,4-diazepan-1-yl}pyridine-2-carboxamide;

N-Butyl-6-{4-[1-(propan-2-yl)piperidin-4-yl]-1,4-diazepan-1-yl}pyridine-2-carboxamide;

N-(2-Fluoroethyl)-6-{4-[1-(propan-2-yl)piperidin-4-yl]-1,4-diazepan-1-yl}pyridine-2-carboxamide;

N-(2,2-Difluoroethyl)-6-{4-[1-(propan-2-yl)piperidin-4-yl]-1,4-diazepan-1-yl}pyridine-2-carboxamide;

6-{4-[1-(Propan-2-yl)piperidin-4-yl]-1,4-diazepan-1-yl}-N-(2,2,2-trifluoroethyl)pyridine-2-carboxamide;

N-Cyclopropyl-6-{4-[1-(propan-2-yl)piperidin-4-yl]-1,4-diazepan-1-yl}pyridine-2-

carboxamide;

N-(2-Hydroxyethyl)-6-{4-[1-(propan-2-yl)piperidin-4-yl]-1,4-diazepan-1-yl}pyridine-2-

carboxamide;

N-(2-Cyanoethyl)-6-{4-[1-(propan-2-yl)piperidin-4-yl]-1,4-diazepan-1-yl}pyridine-2-

carboxamide;

N-(2-Methoxyethyl)-6-{4-[1-(propan-2-yl)piperidin-4-yl]-1,4-diazepan-1-yl}pyridine-2-

carboxamide;

N-(3-Methoxypropyl)-6-{4-[1-(propan-2-yl)piperidin-4-yl]-1,4-diazepan-1-yl}pyridine-2-

carboxamide;

N-[2-(Dimethylamino)ethyl]-6-{4-[1-(propan-2-yl)piperidin-4-yl]-1,4-diazepan-1-yl}pyridine-

2-carboxamide;

N-Methyl-N-(2-methylpropyl)-6-{4-[1-(propan-2-yl)piperidin-4-yl]-1,4-diazepan-1-

yl}pyridine-2-carboxamide;

N-[(3S)-Oxolan-3-yl]-6-{4-[1-(propan-2-yl)piperidin-4-yl]-1,4-diazepan-1-yl}pyridine-2-

carboxamide;

N-[(3R)-Oxolan-3-yl]-6-{4-[1-(propan-2-yl)piperidin-4-yl]-1,4-diazepan-1-yl}pyridine-2-

carboxamide;

N-[(2R)-Oxolan-2-ylmethyl]-6-{4-[1-(propan-2-yl)piperidin-4-yl]-1,4-diazepan-1-yl}pyridine-

2-carboxamide;

1-[(6-{4-[1-(Propan-2-yl)piperidin-4-yl]-1,4-diazepan-1-yl}pyridin-2-yl)carbonyl]-2,3-

dihydro-1H-indole;

2-[(6-{4-[1-(Propan-2-yl)piperidin-4-yl]-1,4-diazepan-1-yl}pyridin-2-yl)carbonyl]-1,2,3,4-

tetrahydroisoquinoline;

N-Phenyl-6-{4-[1-(propan-2-yl)piperidin-4-yl]-1,4-diazepan-1-yl}pyridine-2-carboxamide; N-

(2-Hydroxyphenyl)-6-{4-[1-(propan-2-yl)piperidin-4-yl]-1,4-diazepan-1-yl}pyridine-2-

carboxamide;

N-(4-Chlorophenyl)-6-{4-[1-(propan-2-yl)piperidin-4-yl]-1,4-diazepan-1-yl}pyridine-2-

carboxamide;

N-(4-Methoxyphenyl)-6-{4-[1-(propan-2-yl)piperidin-4-yl]-1,4-diazepan-1-yl}pyridine-2-

carboxamide;

N-(4-Methylphenyl)-6-{4-[1-(propan-2-yl)piperidin-4-yl]-1,4-diazepan-1-yl}pyridine-2-

carboxamide;

6-{4-[1-(Propan-2-yl)piperidin-4-yl]-1,4-diazepan-1-yl}-N-(pyridin-2-yl)pyridine-2-

carboxamide;

6-{4-[1-(Propan-2-yl)piperidin-4-yl]-1,4-diazepan-1-yl}-N-(pyridin-3-yl)pyridine-2-carboxamide;

6-{4-[1-(Propan-2-yl)piperidin-4-yl]-1,4-diazepan-1-yl}-N-(pyridin-4-yl)pyridine-2-carboxamide;

6-{4-[1-(Propan-2-yl)piperidin-4-yl]-1,4-diazepan-1-yl}-N-(1,3-thiazol-2-yl)pyridine-2-carboxamide;

6-{4-[1-(Propan-2-yl)piperidin-4-yl]-1,4-diazepan-1-yl}-N-(1,3-thiazol-5-yl)pyridine-2-carboxamide;

6-{4-[1-(Propan-2-yl)piperidin-4-yl]-1,4-diazepan-1-yl}-N-(pyridin-2-ylmethyl)pyridine-2-carboxamide;

6-{4-[1-(Propan-2-yl)piperidin-4-yl]-1,4-diazepan-1-yl}-N-(pyridin-3-ylmethyl)pyridine-2-carboxamide;

N-Methyl-6-{4-[1-(propan-2-yl)piperidin-4-yl]-1,4-diazepan-1-yl}-N-(pyridin-3-ylmethyl)pyridine-2-carboxamide;

6-{4-[1-(Propan-2-yl)piperidin-4-yl]-1,4-diazepan-1-yl}-N-(pyridin-4-ylmethyl)pyridine-2-carboxamide;

N-[(1-Methyl-1H-imidazol-2-yl)methyl]-6-{4-[1-(propan-2-yl)piperidin-4-yl]-1,4-diazepan-1-yl}pyridine-2-carboxamide;

N-(1,3-Oxazol-2-ylmethyl)-6-{4-[1-(propan-2-yl)piperidin-4-yl]-1,4-diazepan-1-yl}pyridine-2-carboxamide;

6-{4-[1-(Propan-2-yl)piperidin-4-yl]-1,4-diazepan-1-yl}-N-(1,3-thiazol-2-ylmethyl)pyridine-2-carboxamide;

N-(Furan-2-ylmethyl)-6-{4-[1-(propan-2-yl)piperidin-4-yl]-1,4-diazepan-1-yl}pyridine-2-carboxamide;

N-(1,3-Oxazol-4-ylmethyl)-6-{4-[1-(propan-2-yl)piperidin-4-yl]-1,4-diazepan-1-yl}pyridine-2-carboxamide;

6-{4-[1-(Propan-2-yl)piperidin-4-yl]-1,4-diazepan-1-yl}-N-(1,3-thiazol-4-ylmethyl)pyridine-2-carboxamide;

6-{4-[1-(Propan-2-yl)piperidin-4-yl]-1,4-diazepan-1-yl}-N-(1,3-thiazol-5-ylmethyl)pyridine-2-carboxamide;

N-(1,3-Oxazol-5-ylmethyl)-6-{4-[1-(propan-2-yl)piperidin-4-yl]-1,4-diazepan-1-yl}pyridine-2-carboxamide;

N-[2-(1H-Imidazol-1-yl)ethyl]-6-{4-[1-(propan-2-yl)piperidin-4-yl]-1,4-diazepan-1-yl}pyridine-2-carboxamide;

6-{4-[1-(Propan-2-yl)piperidin-4-yl]-1,4-diazepan-1-yl}-N-[2-(pyridin-2-yl)ethyl]pyridine-2-carboxamide;

6-(4-{1-[(2-Chlorophenyl)methyl] piperidin-4-yl}-1,4-diazepan-1-yl)-N-(oxan-4-ylmethyl)pyridine-2-carboxamide;

6-(4-{1-[(2-Chlorophenyl)methyl] piperidin-4-yl}-1,4-diazepan-1-yl)-N-(2,2,2-trifluoroethyl)pyridine-2-carboxamide;

6-(4-{1-[(2-Chlorophenyl)methyl] piperidin-4-yl}-1,4-diazepan-1-yl)-N-(3-methylbutyl)pyridine-2-carboxamide;

6-(4-{1-[(2-Chlorophenyl)methyl] piperidin-4-yl}-1,4-diazepan-1-yl)-N-(2-methoxyethyl)pyridine-2-carboxamide;

6-(4-{1-[(2-Chlorophenyl)methyl] piperidin-4-yl}-1,4-diazepan-1-yl)-N-[(2R)-oxolan-2-ylmethyl]pyridine-2-carboxamide;

6-(4-{1-[(2-Chlorophenyl)methyl] piperidin-4-yl}-1,4-diazepan-1-yl)-N-(oxan-4-yl)pyridine-2-carboxamide;

6-(4-{1-[(2-Chlorophenyl)methyl] piperidin-4-yl}-1,4-diazepan-1-yl)-N-(pyridine-3-yl)pyridine-2-carboxamide;

6-(4-{1-[(2-Chlorophenyl)methyl] piperidin-4-yl}-1,4-diazepan-1-yl)-N-(pyridine-4-yl)pyridine-2-carboxamide;

6-(4-{1-[(2-Chlorophenyl)methyl] piperidin-4-yl}-1,4-diazepan-1-yl)-N-(pyridine-3-ylmethyl)pyridine-2-carboxamide;

6-(4-{1-[(2-Chlorophenyl)methyl] piperidin-4-yl}-1,4-diazepan-1-yl)-N-(pyridine-4-ylmethyl)pyridine-2-carboxamide;

6-(4-{1-[(2-Chlorophenyl)methyl] piperidin-4-yl}-1,4-diazepan-1-yl)-N-(1,3-oxazol-2-ylmethyl)pyridine-2-carboxamide;

6-(4-{1-[(2-Chlorophenyl)methyl] piperidin-4-yl}-1,4-diazepan-1-yl)-N-(1,3-oxazol-4-ylmethyl)pyridine-2-carboxamide;

N-(Cyclopropylmethyl)-6-{4-[1-(1,3-difluoropropan-2-yl)piperidin-4-yl]-1,4-diazepan-1-yl}pyridine-2-carboxamide;

N-(Cyclopropylmethyl)-6-[4-(1-ethylpiperidin-4-yl)-1,4-diazepan-1-yl]pyridine-2-carboxamide;

N-(Cyclopropylmethyl)-6-[4-(1-propylpiperidin-4-yl)-1,4-diazepan-1-yl]pyridine-2-carboxamide;

N-(Cyclopropylmethyl)-6-[4-(1-cyclopropylpiperidin-4-yl)-1,4-diazepan-1-yl]pyridine-2-carboxamide;

N-(Cyclopropylmethyl)-6-{4-[1-(propan-2-yl)piperidin-4-yl]-1,4-diazepan-1-yl}pyridine-2-carboxamide;

6-[4-(1-tert-Butylpiperidin-4-yl)-1,4-diazepan-1-yl]-N-(cyclo propylmethyl)pyridine-2-carboxamide;

6-{4-[1-(Butan-2-yl)piperidin-4-yl]-1,4-diazepan-1-yl}-N-(cyclopropyl methyl)pyridine-2-carboxamide;

N-(Cyclopropylmethyl)-6-{4-[1-(pentan-3-yl)piperidin-4-yl]-1,4-diazepan-1-yl}pyridine-2-carboxamide;

N-(Cyclopropylmethyl)-6-{4-[1-(1-fluoropropan-2-yl)piperidin-4-yl]-1,4-diazepan-1-yl}pyridine-2-carboxamide;

N-(Cyclopropylmethyl)-6-{4-[1-(1,1-difluoropropan-2-yl)piperidin-4-yl]-1,4-diazepan-1-yl}pyridine-2-carboxamide;

N-(Cyclopropylmethyl)-6-(4-{1-[(2S)-1,1,1-trifluoropropan-2-yl]piperidin-4-yl}-1,4-diazepan-1-yl)pyridine-2-carboxamide;

N-(Cyclopropylmethyl)-6-{4-[1-(4,4,4-trifluorobutan-2-yl)piperidin-4-yl]-1,4-diazepan-1-yl}pyridine-2-carboxamide;

N-(Cyclopropylmethyl)-6-{4-[1-(2-methoxyethyl)piperidin-4-yl]-1,4-diazepan-1-yl}pyridine-2-carboxamide;

6-[4-(1-Cyclopentylpiperidin-4-yl)-1,4-diazepan-1-yl]-N-(cyclopropyl methyl)pyridine-2-carboxamide;

N-(Cyclopropylmethyl)-6-{4-[1-(2-fluorocyclopentyl)piperidin-4-yl]-1,4-diazepan-1-yl}pyridine-2-carboxamide;

N-(Cyclopropylmethyl)-6-(4-{1-[(1R)-1-phenylethyl]piperidin-4-yl}-1,4-diazepan-1-yl)pyridine-2-carboxamide;

N-(Cyclopropylmethyl)-6-(4-{1-[(1R)-1-(4-fluorophenyl)ethyl]piperidin-4-yl}-1,4-diazepan-1-yl)pyridine-2-carboxamide;

N-(Cyclopropylmethyl)-6-(4-{1-[(1R)-2,3-dihydro-1H-inden-1-yl]piperidin-4-yl}-1,4-diazepan-1-yl)pyridine-2-carboxamide;

N-(Cyclopropylmethyl)-6-(4-{1-[(1S)-2,3-dihydro-1H-inden-1-yl]piperidin-4-yl}-1,4-diazepan-1-yl)pyridine-2-carboxamide;

6-(4-{1-[(2R)-Butan-2-yl]piperidin-4-yl}-1,4-diazepan-1-yl)-N-(pyridine-4-yl)pyridine-2-carboxamide;

6-(4-{1-[(2S)-Butan-2-yl]piperidin-4-yl}-1,4-diazepan-1-yl)-N-(pyridine-4-yl)pyridine-2-carboxamide;

6-[4-(1-tert-Butylpiperidin-4-yl)-1,4-diazepan-1-yl]-N-(pyridine-4-yl)pyridine-2-carboxamide;

N-(Pyridin-4-yl)-6-(4-{1-[(2R)-1,1,1-trifluoropropan-2-yl]piperidin-4-yl}-1,4-diazepan-1-yl)pyridine-2-carboxamide;

N-(Pyridin-4-yl)-6-(4-{1-[(2S)-1,1,1-trifluoropropan-2-yl]piperidin-4-yl}-1,4-diazepan-1-yl)pyridine-2-carboxamide;

6-[4-(1-Cyclopentyl)piperidin-4-yl]-1,4-diazepan-1-yl]-N-(pyridine-4-yl)pyridine-2-carboxamide;

6-(4-{1-[(2-Chlorophenyl)methyl] piperidin-4-yl}-1,4-diazepan-1-yl)-N-(2-methylpyridin-4-yl)pyridine-2-carboxamide;

6-(4-{1-[(2-Chlorophenyl)methyl] piperidin-4-yl}-1,4-diazepan-1-yl)-N-(2,6-dimethylpyridin-4-yl)pyridine-2-carboxamide;

N-(2-Methylpyridin-4-yl)-6-{4-[1-(propan-2-yl)piperidin-4-yl]-1,4-diazepan-1-yl}pyridine-2-carboxamide;

N-(2,6-Dimethylpyridin-4-yl)-6-{4-[1-(propan-2-yl)piperidin-4-yl]-1,4-diazepan-1-yl}pyridine-2-carboxamide;

N-(3-Methylpyridin-4-yl)-6-{4-[1-(propan-2-yl)piperidin-4-yl]-1,4-diazepan-1-yl}pyridine-2-carboxamide;

N-(Pyridin-3-ylmethyl)-6-(4-{1-[(2S)-1,1,1-trifluoropropan-2-yl]piperidin-4-yl}-1,4-diazepan-1-yl)pyridine-2-carboxamide;

N-(Pyridin-3-ylmethyl)-6-{4-[1-(4,4,4-trifluorobutan-2-yl)piperidin-4-yl]-1,4-diazepan-1-yl}pyridine-2-carboxamide;

N-(Pyridin-3-ylmethyl)-6-{4-[1-(1,1,1-trifluoro-2-methylpropan-2-yl)piperidin-4-yl]-1,4-diazepan-1-yl}pyridine-2-carboxamide;

6-(4-{1-[(1R)-1-Phenylethyl]piperidin-4-yl}-1,4-diazepan-1-yl)-N-(pyridine-3-ylmethyl)pyridine-2-carboxamide;

N-Butyl-6-(4-{1-[(2S)-1,1,1-trifluoropropan-2-yl]piperidin-4-yl}-1,4-diazepan-1-yl)pyridine-2-carboxamide;

N-(1,3-Thiazol-2-ylmethyl)-6-(4-{1-[(2S)-1,1,1-trifluoropropan-2-yl]piperidin-4-yl}-1,4-diazepan-1-yl)pyridine-2-carboxamide;

1-Methyl-2-(6-{4-[1-(propan-2-yl)piperidin-4-yl]-1,4-diazepan-1-yl}pyridine-2-yl)-1H-indole;

1-[1-(Propan-2-yl)piperidin-4-yl]-4-(6-{1H-pyrrolo[3,2-b]pyridine-2-yl}pyridine-2-yl)-1,4-diazepane;

1-[1-(Propan-2-yl)piperidin-4-yl]-4-(6-{1H-pyrrolo[3,2-c]pyridine-2-yl}pyridine-2-yl)-1,4-diazepane;

1-[1-(Propan-2-yl)piperidin-4-yl]-4-(6-{1H-pyrrolo[2,3-c]pyridine-2-yl}pyridine-2-yl)-1,4-diazepane;

1-[1-(Propan-2-yl)piperidin-4-yl]-4-(6-{1H-pyrrolo[2,3-b]pyridine-2-yl}pyridine-2-yl)-1,4-diazepane;

2-(6-{4-[1-(Propan-2-yl)piperidin-4-yl]-1,4-diazepan-1-yl}pyridine-2-yl)-1H-indole;

1-[1-(Propan-2-yl)piperidin-4-yl]-4-(6-{1H-pyrrolo[2,3-b]pyridine-3-yl}pyridine-2-yl)-1,4-diazepane;

3-(6-{4-[1-(Propan-2-yl)piperidin-4-yl]-1,4-diazepan-1-yl}pyridine-2-yl)-1H-indole;

2-(6-{4-[1-(Propan-2-yl)piperidin-4-yl]-1,4-diazepan-1-yl}pyridine-2-yl)-1H-indole-6-carbonitrile;

6-Methoxy-2-(6-{4-[1-(propan-2-yl)piperidin-4-yl]-1,4-diazepan-1-yl}pyridine-2-yl)-1H-indole;

5-Methoxy-2-(6-{4-[1-(propan-2-yl)piperidin-4-yl]-1,4-diazepan-1-yl}pyridine-2-yl)-1H-indole;

1-(6-{3H-Imidazo[4,5-c]pyridin-2-yl}pyridin-2-yl)-4-[1-(propan-2-yl)piperidin-4-yl]-1,4-diazepane;

1-[6-(4-Methyl-1H-imidazol-2-yl)pyridine-2-yl]-4-[1-(propan-2-yl)piperidin-4-yl]-1,4-diazepane;

1-[6-(4-Ethyl-1H-imidazol-2-yl)pyridine-2-yl]-4-[1-(propan-2-yl)piperidin-4-yl]-1,4-diazepane;

1-[1-(Propan-2-yl)piperidin-4-yl]-4-[6-(4-propyl-1H-imidazol-2-yl)pyridine-2-yl]-1,4-diazepane;

1-{6-[4-(Propan-2-yl)-1H-imidazol-2-yl]pyridine-2-yl}-4-[1-(propan-2-yl)piperidin-4-yl]-1,4-diazepane;

1-[6-(4-Cyclopropyl-1H-imidazol-2-yl)pyridine-2-yl]-4-[1-(propan-2-yl)piperidin-4-yl]-1,4-diazepane;

1-[1-(Propan-2-yl)piperidin-4-yl]-4-{6-[4-(trifluoromethyl)-1H-imidazol-2-yl]pyridine-2-yl}-1,4-diazepane;

1-[6-(4-tert-Butyl-1H-imidazol-2-yl)pyridine-2-yl]-4-[1-(propan-2-yl)piperidin-4-yl]-1,4-diazepane;

1-[6-(4-Phenyl-1H-imidazol-2-yl)pyridine-2-yl]-4-[1-(propan-2-yl)piperidin-4-yl]-1,4-diazepane;

1-[6-(4-Ethyl-1H-imidazol-2-yl)pyridine-2-yl]-4-{1-[(2S)-1,1,1-trifluoropropan-2-yl]piperidin-4-yl}-1,4-diazepane;

1-{1-[(2R)-Butan-2-yl]piperidin-4-yl}-4-[6-(4-ethyl-1H-imidazol-2-yl)pyridine-2-yl]-1,4-diazepane;

1-[6-(4-tert-Butyl-1H-imidazol-2-yl)pyridine-2-yl]-4-(1-tert-butylpiperidin-4-yl)-1,4-diazepane;

1-[6-(4,5-Dimethyl-1H-imidazol-2-yl)pyridine-2-yl]-4-[1-(propan-2-yl)piperidin-4-yl]-1,4-diazepane;

1-[6-(5-Ethyl-4-methyl-1H-imidazol-2-yl)pyridine-2-yl]-4-[1-(propan-2-yl)piperidin-4-yl]-1,4-diazepane;

1-[6-(4,5-Diethyl-1H-imidazol-2-yl)pyridine-2-yl]-4-[1-(propan-2-yl)piperidin-4-yl]-1,4-diazepane;

1-[6-(4-Cyclopropyl-5-methyl-1H-imidazol-2-yl)pyridine-2-yl]-4-[1-(propan-2-yl)piperidin-4-yl]-1,4-diazepane;

1-[6-(4-Cyclopropyl-5-ethyl-1H-imidazol-2-yl)pyridine-2-yl]-4-[1-(propan-2-yl)piperidin-4-yl]-1,4-diazepane;

1-[6-(5-Methyl-4-propyl-1H-imidazol-2-yl)pyridine-2-yl]-4-[1-(propan-2-yl)piperidin-4-yl]-1,4-diazepane;

1-[6-(4-Ethyl-1-methyl-1H-imidazol-2-yl)pyridine-2-yl]-4-[1-(propan-2-yl)piperidin-4-yl]-1,4-diazepane;

N-(Cyclopropylmethyl)-3-methyl-6-{4-[1-(propan-2-yl)piperidin-4-yl]-1,4-diazepan-1-yl}pyridine-2-carboxamide;

1-[1-(2,3-Dihydro-1H-inden-1-yl)piperidin-4-yl]-4-(1,3-thiazol-2-yl)-1,4-diazepane;

N-(Cyclopropylmethyl)-6-{4-[1-(1-methoxypropan-2-yl)piperidin-4-yl]-1,4-diazepan-1-yl}pyridine-2-carboxamide;

N-(Cyclopropylmethyl)-6-{4-[1-(oxolan-3-yl)piperidin-4-yl]-1,4-diazepan-1-yl}pyridine-2-carboxamide;

6-[4-(1-Benzylpiperidin-4-yl)-1,4-diazepan-1-yl]-N-(cyclopropyl methyl)pyridine-2-carboxamide;

N-(Cyclopropylmethyl)-6-(4-{1-[(4-fluorophenyl)methyl]piperidin-4-yl}-1,4-diazepan-1-yl)pyridine-2-carboxamide;

N-(Cyclopropylmethyl)-6-(4-{1-[(2-methylphenyl)methyl]piperidin-4-yl}-1,4-diazepan-1-yl)pyridine-2-carboxamide;

6-(4-{1-[(2-Chlorophenyl)methyl]piperidin-4-yl}-1,4-diazepan-1-yl)-N-(cyclopropylmethyl)pyridine-2-carboxamide;

N-(Cyclopropylmethyl)-6-(4-{1-[(2-methoxyphenyl)methyl]piperidin-4-yl}-1,4-diazepan-1-yl)pyridine-2-carboxamide;

6-(4-{1-[(3-Chlorophenyl)methyl]piperidin-4-yl}-1,4-diazepan-1-yl)-N-(cyclopropylmethyl)pyridine-2-carboxamide;

6-(4-{1-[(2-Chloro-4-fluorophenyl)methyl]piperidin-4-yl}-1,4-diazepan-1-yl)-N-(cyclopropylmethyl)pyridine-2-carboxamide;
6-(4-{1-[(2-Chlorophenyl)methyl]piperidin-4-yl}-1,4-diazepan-1-yl)pyridine-2-carboxamide;
6-(4-{1-[(2-Chlorophenyl)methyl]piperidin-4-yl}-1,4-diazepan-1-yl)-N-ethylpyridine-2-carboxamide;
N-Butyl-6-(4-{1-[(2-chlorophenyl)methyl]piperidin-4-yl}-1,4-diazepan-1-yl)pyridine-2-carboxamide;
6-(4-{1-[(2-Chlorophenyl)methyl]piperidin-4-yl}-1,4-diazepan-1-yl)-N-[3-(1H-imidazol-1-yl)propyl]pyridine-2-carboxamide;
1-Methyl-2-(6-{4-[1-(propan-2-yl)piperidin-4-yl]-1,4-diazepan-1-yl}pyridin-2-yl)-1H-1,3-benzodiazole;
2-(6-{4-[1-(Propan-2-yl)piperidin-4-yl]-1,4-diazepan-1-yl}pyridine-2-yl)-1H-1,3-benzodiazole;
7-Fluoro-2-(6-{4-[1-(propan-2-yl)piperidin-4-yl]-1,4-diazepan-1-yl}pyridine-2-yl)-1H-1,3-benzodiazole;
7-Methyl-2-(6-{4-[1-(propan-2-yl)piperidin-4-yl]-1,4-diazepan-1-yl}pyridine-2-yl)-1H-1,3-benzodiazole;
2-(6-{4-[1-(Propan-2-yl)piperidin-4-yl]-1,4-diazepan-1-yl}pyridine-2-yl)-6-(trifluoromethyl)-1H-1,3-benzodiazole;
5,6-Difluoro-2-(6-{4-[1-(propan-2-yl)piperidin-4-yl]-1,4-diazepan-1-yl}pyridine-2-yl)-1H-1,3-benzodiazole;
5,6-Dimethyl-2-(6-{4-[1-(propan-2-yl)piperidin-4-yl]-1,4-diazepan-1-yl}pyridine-2-yl)-1H-1,3-benzodiazole;
6-Fluoro-2-(6-{4-[1-(propan-2-yl)piperidin-4-yl]-1,4-diazepan-1-yl}pyridine-2-yl)-1H-1,3-benzodiazole;
6-Methyl-2-(6-{4-[1-(propan-2-yl)piperidin-4-yl]-1,4-diazepan-1-yl}pyridine-2-yl)-1H-1,3-benzodiazole;
2-(6-{4-[1-(Propan-2-yl)piperidin-4-yl]-1,4-diazepan-1-yl}pyridine-2-yl)-1H-1,3-benzodiazole-6-carbonitrile;
6-Methoxy-2-(6-{4-[1-(propan-2-yl)piperidin-4-yl]-1,4-diazepan-1-yl}pyridine-2-yl)-1H-1,3-benzodiazole;
2-(6-{4-[1-(Propan-2-yl)piperidin-4-yl]-1,4-diazepan-1-yl}pyridine-2-yl)-1,3-benzothiazole;
2-(6-{4-[1-(Propan-2-yl)piperidin-4-yl]-1,4-diazepan-1-yl}pyridine-2-yl)-1,3-benzoxazole;
1-[6-(5-Methyl-1,2,4-oxadiazol-3-yl)pyridin-2-yl]-4-[1-(propan-2-yl)piperidin-4-yl]-1,4-diazepane;

1-[1-[(2R)-Butan-2-yl]piperidin-4-yl]-4-[6-(5-propyl-1,2,4-oxadiazol-3-yl)pyridin-2-yl]-1,4-diazepane;

1-[6-(5-Ethyl-1,2,4-oxadiazol-3-yl)pyridine-2-yl]-4-[1-(propan-2-yl)piperidin-4-yl]-1,4-diazepane trihydrochloride;

1-[1-(Propan-2-yl)piperidin-4-yl]-4-[6-(5-propyl-1,2,4-oxadiazol-3-yl)pyridine-2-yl]-1,4-diazepane;

1-[6-(5-Butyl-1,2,4-oxadiazol-3-yl)pyridine-2-yl]-4-[1-(propan-2-yl)piperidin-4-yl]-1,4-diazepane;

1-{6-[5-(Propan-2-yl)-1,2,4-oxadiazol-3-yl]pyridine-2-yl}-4-[1-(propan-2-yl)piperidin-4-yl]-1,4-diazepane;

1-[6-(5-tert-Butyl-1,2,4-oxadiazol-3-yl)pyridine-2-yl]-4-[1-(propan-2-yl)piperidin-4-yl]-1,4-diazepane;

1-{6-[5-(2,2-Dimethylpropyl)-1,2,4-oxadiazol-3-yl]pyridine-2-yl}-4-[1-(propan-2-yl)piperidin-4-yl]-1,4-diazepane;

1-[6-(5-Cyclopropyl-1,2,4-oxadiazol-3-yl)pyridine-2-yl]-4-[1-(propan-2-yl)piperidin-4-yl]-1,4-diazepane;

1-[6-(5-Cyclopentyl-1,2,4-oxadiazol-3-yl)pyridine-2-yl]-4-[1-(propan-2-yl)piperidin-4-yl]-1,4-diazepane;

1-{6-[5-(Methoxymethyl)-1,2,4-oxadiazol-3-yl]pyridine-2-yl}-4-[1-(propan-2-yl)piperidin-4-yl]-1,4-diazepane;

1-[6-(5-Phenyl-1,2,4-oxadiazol-3-yl)pyridine-2-yl]-4-[1-(propan-2-yl)piperidin-4-yl]-1,4-diazepane;

1-[1-(Propan-2-yl)piperidin-4-yl]-4-{6-[5-(pyridine-2-yl)-1,2,4-oxadiazol-3-yl]pyridine-2-yl}-1,4-diazepane tetrahydrochloride;

1-[1-(Propan-2-yl)piperidin-4-yl]-4-{6-[5-(pyridine-3-yl)-1,2,4-oxadiazol-3-yl]pyridine-2-yl}-1,4-diazepane tetrahydrochloride;

1-[1-(Propan-2-yl)piperidin-4-yl]-4-{6-[5-(pyridine-4-yl)-1,2,4-oxadiazol-3-yl]pyridine-2-yl}-1,4-diazepane tetrahydrochloride;

1-[6-(2-Methyl-2H-1,2,3,4-tetrazol-5-yl)pyridin-2-yl]-4-[1-(propan-2-yl)piperidin-4-yl]-1,4-diazepane;

1-[6-(3-Cyclopropyl-1,2,4-oxadiazol-5-yl)pyridin-2-yl]-4-[1-(propan-2-yl)piperidin-4-yl]-1,4-diazepane;

1-[6-(3-Phenyl-1,2,4-oxadiazol-5-yl)pyridin-2-yl]-4-[1-(propan-2-yl)piperidin-4-yl]-1,4-diazepane;

1-[6-(5-Butyl-1,3-oxazol-2-yl)pyridin-2-yl]-4-[1-(propan-2-yl)piperidin-4-yl]-1,4-diazepane;

1-[6-(5-Cyclopropyl-1,3,4-oxadiazol-2-yl)pyridin-2-yl]-4-[1-(propan-2-yl)piperidin-4-yl]-1,4-diazepane;

1-[6-(4-Methyl-1H-pyrazol-3-yl)pyridin-2-yl]-4-[1-(propan-2-yl)piperidin-4-yl]-1,4-diazepane;
N-(Cyclopropylmethyl)-6-{7-methyl-4-[1-(propan-2-yl)piperidin-4-yl]-1,4-diazepan-1-yl}pyridine-2-carboxamide;

6-{7,7-Dihydrogenio-4-[1-(propan-2-yl)piperidin-4-yl]-1,4-diazepan-1-yl}-N-(pyridine-4-yl)pyridine-2-carboxamide;

6-(4-{1-[(2R)-Butan-2-yl]piperidin-4-yl}-7,7-dihydrogenio-1,4-diazepan-1-yl)-N-(pyridine-4-yl)pyridine-2-carboxamide;

6-(4-{1-[(2S)-Butan-2-yl]piperidin-4-yl}-7,7-dihydrogenio-1,4-diazepan-1-yl)-N-(pyridine-4-yl)pyridine-2-carboxamide;

6-(7,7-Dihydrogenio-4-{1-[(2S)-1,1,1-trifluoropropan-2-yl]piperidin-4-yl}-1,4-diazepan-1-yl)-N-(pyridine-4-yl)pyridine-2-carboxamide;

6-[4-(1-Cyclopentyl)piperidin-4-yl]-7,7-dihydrogenio-1,4-diazepan-1-yl]-N-(pyridine-4-yl)pyridine-2-carboxamide;

6-(4-{1-[(2-Chlorophenyl)methyl]piperidin-4-yl}-7,7-dihydrogenio-1,4-diazepan-1-yl)-N-(pyridine-4-yl)pyridine-2-carboxamide;

N-(Cyclopropylmethyl)-6-{7,7-dihydrogenio-4-[1-(propan-2-yl)piperidin-4-yl]-1,4-diazepan-1-yl}pyridine-2-carboxamide;

6-{6-Methyl-4-[1-(propan-2-yl)piperidin-4-yl]-1,4-diazepan-1-yl}-N-(pyridine-4-yl)pyridine-2-carboxamide;

N-(Cyclopropylmethyl)-6-{6-hydroxy-4-[1-(propan-2-yl)piperidin-4-yl]-1,4-diazepan-1-yl}pyridine-2-carboxamide;

N-(Cyclopropylmethyl)-6-{5-methyl-4-[1-(propan-2-yl)piperidin-4-yl]-1,4-diazepan-1-yl}pyridine-2-carboxamide;

6-{4-[3-Fluoro-1-(propan-2-yl)piperidin-4-yl]-1,4-diazepan-1-yl}-N-(pyridine-3-ylmethyl)pyridine-2-carboxamide;

6-{5,5-Dihydrogenio-4-[1-(propan-2-yl)piperidin-4-yl]-1,4-diazepan-1-yl}-N-(pyridine-4-yl)pyridine-2-carboxamide;

6-{4-[3-Fluoro-1-(propan-2-yl)piperidin-4-yl]-5,5-dihydrogenio-1,4-diazepan-1-yl}-N-(pyridine-4-yl)pyridine-2-carboxamide;

6-(4-{1-[(2R)-Butan-2-yl]piperidin-4-yl}-5,5-dihydrogenio-1,4-diazepan-1-yl)-N-(pyridine-4-yl)pyridine-2-carboxamide;

6-(4-{1-[(2S)-Butan-2-yl]piperidin-4-yl}-5,5-dihydrogenio-1,4-diazepan-1-yl)-N-(pyridine-4-yl)pyridine-2-carboxamide;

6-(5,5-Dihydrogenio-4-{1-[(2S)-1,1,1-trifluoropropan-2-yl]piperidin-4-yl}-1,4-diazepan-1-yl)-N-(pyridin-4-yl)pyridine-2-carboxamide;

6-[4-(1-Cyclopentylpiperidin-4-yl)-5,5-dihydrogenio-1,4-diazepan-1-yl]-N-(pyridin-4-yl)pyridine-2-carboxamide;

N-(Cyclopropylmethyl)-6-{5,5-dihydrogenio-4-[1-(propan-2-yl)piperidin-4-yl]-1,4-diazepan-1-yl}pyridine-2-carboxamide;

6-{3-Methyl-4-[1-(propan-2-yl)piperidin-4-yl]-1,4-diazepan-1-yl}-N-(pyridin-4-yl)pyridine-2-carboxamide;

N-(Cyclopropylmethyl)-6-{3-methyl-4-[1-(propan-2-yl)piperidin-4-yl]-1,4-diazepan-1-yl}pyridine-2-carboxamide;

6-{5,5-Dihydrogenio-3-methyl-4-[1-(propan-2-yl)piperidin-4-yl]-1,4-diazepan-1-yl}-N-(pyridin-4-yl)pyridine-2-carboxamide;

6-(5,5-Dihydrogenio-3-methyl-4-{1-[(2S)-1,1,1-trifluoropropan-2-yl]piperidin-4-yl}-1,4-diazepan-1-yl)-N-(pyridin-4-yl)pyridine-2-carboxamide;

6-{6-[1-(Propan-2-yl)piperidin-4-yl]-3,6-diazabicyclo[3.2.2]nonan-3-yl}-N-(pyridin-4-yl)pyridine-2-carboxamide;

6-{6-[3-Fluoro-1-(propan-2-yl)piperidin-4-yl]-3,6-diazabicyclo[3.2.2]nonan-3-yl}-N-(pyridin-4-yl)pyridine-2-carboxamide;

N-(Cyclopropylmethyl)-6-{6-[1-(propan-2-yl)piperidin-4-yl]-3,6-diazabicyclo[3.2.2]nonan-3-yl}pyridine-2-carboxamide;

N-(Cyclopropylmethyl)-6-{3-[1-(propan-2-yl)piperidin-4-yl]-3,6-diazabicyclo[3.2.1]octan-6-yl}pyridine-2-carboxamide;

6-(4-{2-[4-(Propan-2-yl)morpholin-3-yl]ethyl}-1,4-diazepan-1-yl)-N-(pyridin-4-yl)pyridine-2-carboxamide;

6-(4-{[(2R)-1-Methyl-4-(propan-2-yl)piperazin-2-yl]methyl}-1,4-diazepan-1-yl)-N-(pyridin-4-yl)pyridine-2-carboxamide;

6-(4-{1-[(2-Chloro-4-fluorophenyl)methyl]piperidin-4-yl}-5,5-dihydrogenio-1,4-diazepan-1-yl)-N-(pyridin-4-yl)pyridine-2-carboxamide;

6-(4-{1-[(2-Chlorophenyl)methyl]piperidin-4-yl}-5,5-dihydrogenio-1,4-diazepan-1-yl)-N-(pyridin-4-yl)pyridine-2-carboxamide;

6-(4-{1-[(2-Chloro-4-fluorophenyl)methyl]piperidin-4-yl}-7,7-dihydrogenio-1,4-diazepan-1-yl)-N-(pyridin-4-yl)pyridine-2-carboxamide;

6-(4-{1-[(2-Chlorophenyl)methyl]piperidin-4-yl}-5,5-dihydrogenio-3-methyl-1,4-diazepan-1-yl)-N-(pyridin-4-yl)pyridine-2-carboxamide;

6-(4-{1-[(2-Chloro-4-fluorophenyl) methyl]piperidin-4-yl}-5,5-dihydrogenio-3-methyl-1,4-diazepan-1-yl)-N-(pyridin-4-yl)pyridine-2-carboxamide;

6-(6-{1-[(2-Chlorophenyl)methyl]piperidin-4-yl}-3,6-diazabicyclo[3.2.2]nonan-3-yl)-N-(pyridin-4-yl)pyridine-2-carboxamide;

6-(6-{1-[(2-Chloro-4-fluorophenyl)methyl]piperidin-4-yl}-3,6-diazabicyclo[3.2.2]nonan-3-yl)-N-(pyridin-4-yl)pyridine-2-carboxamide;

6-{4-[3-Fluoro-1-(propan-2-yl)piperidin-4-yl]-1,4-diazepan-1-yl}-N-(pyridin-4-yl)pyridine-2-carboxamide;

6-{4-[3-Fluoro-1-(propan-2-yl)piperidin-4-yl]-7,7-dihydrogenio-1,4-diazepan-1-yl}-N-(pyridin-4-yl)pyridine-2-carboxamide;

1-[6-(4-Cyclopropyl-1H-imidazol-2-yl)pyridin-2-yl]-4-[3-fluoro-1-(propan-2-yl)piperidin-4-yl]-1,4-diazepane;

1-[6-(4-Cyclopropyl-5-methyl-1H-imidazol-2-yl)pyridin-2-yl]-4-[3-fluoro-1-(propan-2-yl)piperidin-4-yl]-1,4-diazepane;

1-(1-Cyclopentyl-3-fluoropiperidin-4-yl)-4-[6-(4-cyclopropyl-5-methyl-1H-imidazol-2-yl)pyridin-2-yl]-1,4-diazepane;

6-{4-[2-Methyl-1-(propan-2-yl)piperidin-4-yl]-1,4-diazepan-1-yl}-N-(pyridin-3-ylmethyl)pyridine-2-carboxamide;

N-(Cyclopropylmethyl)-6-{4-[(3R)-3-hydroxy-1-(propan-2-yl)piperidin-4-yl]-1,4-diazepan-1-yl}pyridine-2-carboxamide;

N-(Cyclopropylmethyl)-6-{10-[1-(propan-2-yl)piperidin-4-yl]-3,10-diazabicyclo[4.3.1]decan-3-yl}pyridine-2-carboxamide;

6-(10-{1-[(2-Chlorophenyl)methyl]piperidin-4-yl}-3,10-diazabicyclo[4.3.1]decan-3-yl)-N-(pyridin-4-yl)pyridine-2-carboxamide;

1-(6-{4-[1-(Propan-2-yl)piperidin-4-yl]-1,4-diazepan-1-yl}pyridin-2-yl)butan-1-one;

2-Phenyl-1-(6-{4-[1-(propan-2-yl)piperidin-4-yl]-1,4-diazepan-1-yl}pyridin-2-yl)ethan-1-one;

6-({1-[1-(Propan-2-yl)azepan-4-yl]piperidin-4-yl}oxy)-N-(pyridin-4-yl)pyridine-2-carboxamide;

6-({1-[1-(Propan-2-yl)piperidin-4-yl]piperidin-3-yl}amino)-N-(pyridin-4-yl)pyridine-2-carboxamide;

(3R)-1-[6-(4-Cyclopropyl-1H-imidazol-2-yl)pyridin-2-yl]-N-{[1-(propan-2-yl)piperidin-4-yl]methyl}pyrrolidin-3-amine;

(3R)-N-{[(3S)-1-Cyclopentylpyrrolidin-3-yl]methyl}-1-[6-(4-cyclopropyl-5-methyl-1H-imidazol-2-yl)pyridin-2-yl]pyrrolidin-3-amine;

(3R)-N-{[(3R)-1-Cyclopentylpyrrolidin-3-yl]methyl}-1-[6-(4-cyclopropyl-5-methyl-1H-imidazol-2-yl)pyridin-2-yl]pyrrolidin-3-amine;

6-[(3R)-3-({[(3S)-1-Cyclopentylpyrrolidin-3-yl]methyl}amino)pyrrolidin-1-yl]-N-(pyridin-4-yl)pyridine-2-carboxamide;

6-[(3R)-3-({[(3R)-1-Cyclopentylpyrrolidin-3-yl]methyl}amino)pyrrolidin-1-yl]-N-(pyridin-4-yl)pyridine-2-carboxamide;

6-[(3R)-3-({[(1-Cyclopentylpiperidin-4-yl)methyl]amino}pyrrolidin-1-yl)-N-(pyridin-4-yl)pyridine-2-carboxamide;

6-(4-{1-[2-Methylphenyl)methyl]azepan-4-yl}piperazin-1-yl)-N-(pyridin-4-yl)pyridine-2-carboxamide;

6-(4-{1-[2-Chloro-4-fluorophenyl)methyl]azepan-4-yl}piperazin-1-yl)-N-(pyridin-4-yl)pyridine-2-carboxamide;

6-{4-[1-(Propan-2-yl)azepan-4-yl]piperazin-1-yl}-N-(pyridin-4-yl)pyridine-2-carboxamide;

4-{4-[6-(5-Cyclopropyl-4-methyl-1H-imidazol-2-yl)pyridin-2-yl]piperazin-1-yl}-1-(propan-2-yl)azepane;

6-(4-{[(2R)-4-(Propan-2-yl)morpholin-2-yl]methyl}-1,4-diazepan-1-yl)-N-(pyridin-4-yl)pyridine-2-carboxamide;

1-Cyclopentyl-4-{4-[6-(5-cyclopropyl-4-methyl-1H-imidazol-2-yl)pyridin-2-yl]piperazin-1-yl}azepane;

6-(4-{[1-(Propan-2-yl)piperidin-4-yl]amino}piperidin-1-yl)-N-(pyridin-4-yl)pyridine-2-carboxamide;

N-Butyl-6-(4-{[4-(propan-2-yl)morpholin-2-yl]methyl}-1,4-diazepan-1-yl)pyridine-2-carboxamide;

N-(Cyclopropylmethyl)-6-{4-[3-(1,2,3,4-tetrahydroisoquinolin-2-yl)propyl]-1,4-diazepan-1-yl}pyridine-2-carboxamide;

N-(Cyclopropylmethyl)-6-{4-[3-(3,3-difluoropyrrolidin-1-yl)propyl]-1,4-diazepan-1-yl}pyridine-2-carboxamide;

6-{4-[2-Hydroxy-3-(propan-2-ylamino)propyl]-1,4-diazepan-1-yl}-N-(pyridin-3-ylmethyl)pyridine-2-carboxamide;

1-[6-(4-Cyclopropyl-1H-imidazol-2-yl)pyridin-2-yl]-4-[4-(pyrrolidin-1-yl)cyclohexyl]-1,4-diazepane;

6-[4-(4-tert-Butylcyclohexyl)-1,4-diazepan-1-yl]-N-(pyridin-3-ylmethyl)pyridine-2-carboxamide;

N-(Pyridin-4-yl)-6-(4-{4-[2-(trifluoromethyl)pyrrolidin-1-yl]cyclohexyl}-1,4-diazepan-1-yl)pyridine-2-carboxamide;

6-[4-(3-{[(2-Chlorophenyl)methyl]amino}propyl)-1,4-diazepan-1-yl]-N-(cyclopropylmethyl)pyridine-2-carboxamide;
6-(4-{1-[(2-Chlorophenyl)methyl]piperidin-4-yl}-1,4-diazepan-1-yl)pyridine-2-carbonitrile;
[6-(4-{1-[(2-Chlorophenyl)methyl]piperidin-4-yl}-1,4-diazepan-1-yl)pyridin-2-yl]methanol;
1-{1-[(2-Chlorophenyl)methyl]piperidin-4-yl}-4-(pyridin-2-yl)-1,4-diazepane;
1-{1-[(2-Chlorophenyl)methyl]piperidin-4-yl}-4-(6-methylpyridin-2-yl)-1,4-diazepane;
1-{1-[(2-Chlorophenyl)methyl]piperidin-4-yl}-4-(5-methylpyridin-2-yl)-1,4-diazepane;
1-{1-[(2-Chlorophenyl)methyl]piperidin-4-yl}-4-(4-methylpyridin-2-yl)-1,4-diazepane;
2-(4-{1-[(2-Chlorophenyl)methyl]piperidin-4-yl}-1,4-diazepan-1-yl)-N-(cyclopropylmethyl)-1,3-thiazole-4-carboxamide;
2-(4-{1-[(2-Chlorophenyl)methyl]piperidin-4-yl}-1,4-diazepan-1-yl)-N-[3-(1H-imidazol-1-yl)propyl]-6-methylpyrimidine-4-carboxamide;
1-{1-[(2-Chlorophenyl)methyl]piperidin-4-yl}-4-(1,3-thiazol-2-yl)-1,4-diazepane;
6-(4-{1-[(2-Chlorophenyl)methyl]piperidin-4-yl}-1,4-diazepan-1-yl)-N-(cyclopropylmethyl)-4-methylpyridine-2-carboxamide;
2-(4-{1-[(2-chlorophenyl)methyl]piperidin-4-yl}-1,4-diazepan-1-yl)-N-(cyclopropylmethyl)pyridine-4-carboxamide;
6-(4-{1-[(2-Chlorophenyl)methyl]piperidin-4-yl}-1,4-diazepan-1-yl)-N-(cyclopropylmethyl)-5-methoxypyridine-2-carboxamide;
and pharmaceutically acceptable salts thereof.

17. A pharmaceutical composition comprising a compound as claimed in any of the preceding claims, together with one or more pharmaceutically acceptable carriers and/or excipients.

18. The use of a compound as claimed in any of claims 1 to 16 in the preparation of a composition medicament for treatment of a condition responsive to the reduction of CXCR4 mediated activity.

19. — A method of treatment of a condition responsive to the reduction of CXCR4 mediated activity in a subject, comprising administering to the subject an amount of a compound as claimed in any of claims 1 to 16 effective to reduce such CXCR4 mediated activity.

2019. The use as claimed in claim 18 or a method as claimed in claim 19, wherein the condition is cancer including cancers of the haematopoietic system such as multiple myeloma

and non-Hodgkin's lymphoma, non-small cell lung, breast and neuroblastoma, cancer metastasis, HIV/AIDS, neuropathy, HIV related neuropathy, pain, inflammation, brain inflammation, neurodegeneration, cognitive degeneration, diabetic retinopathy, age related macular degeneration, retinal neo-vascularisation, and viral infections.

~~21. The use of a compound as claimed in any of claims 1 to 16 in an apheresis procedure for promoting release and mobilisation of stem cells, including haematopoietic and non-haematopoietic stem cells and progenitor stem cells prior to harvesting.~~

~~22. The use of a compound as claimed in any of claims 1 to 16 and G-CSF in an apheresis procedure for promoting release and mobilisation of stem cells, including haematopoietic and non-haematopoietic stem cells and progenitor stem cells prior to harvesting.~~

~~23. The use according to claim 21 or 22 wherein the said apheresis procedure is implemented prior to treatment of a subject by chemotherapy or radiotherapy, for reducing chemotherapy or radiotherapy-induced leukopenia.~~

~~24. The use according to claim 20 wherein the said compound is administered as an adjunct to chemotherapy or radiotherapy to sensitize tumours to such chemotherapy or radiotherapy.~~

2520. The use according to claim 18 for inhibition of neo-vascularisation, angiogenesis, or vasculogenesis.