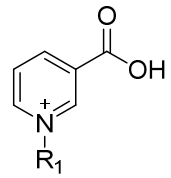
Claims

1. A compound of formula (III)

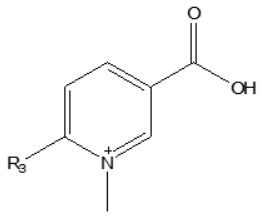


(III)

or a pharmaceutically acceptable salt thereof; wherein R_1 is selected from the group consisting of: oxocyclohexanyl, oxocyclopentanyl and oxocyclobutanyl.

2. The compound according to claim 1, wherein R_1 is oxocyclohexanyl.

3. A compound of the formula (I) or a pharamaceutically acceptable salt thereof



(I)

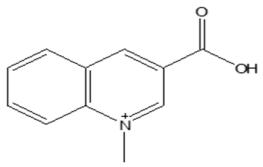
wherein R_3 is a lower alkyl or aryl.

4. The compound according to claim 3 wherein said lower alkyl is methyl or ethyl or wherein R_3 is phenyl.

~~5. The compound according to claim 3 wherein R_3 is methyl.~~

~~6. The compound according to claim 3 wherein said R_3 is phenyl.~~

~~7.~~5. A compound of the formula (II) or a pharmaceutically acceptable salt thereof



(II)

~~8. The compound according to any of the preceding claims for use as a medicament.~~

~~9. The compound according to any of the preceding claims for use in promoting follicle maturation~~

~~10. The compound according to any of the preceding claims for use in the treatment of an ovulation disorder.~~

~~11. The compound according to claim 10, wherein said ovulation disorder is selected from the group consisting of premature ovarian insufficiency (POI) and premature menopause.~~

~~12. A method of treating a medical condition comprising administering a therapeutically effective amount of the compound according to claims 1-7 or pharmaceutically acceptable salts thereof to a human or animal in need thereof.~~

~~13. The method according to claim 12, wherein said medical condition is an ovulation disorder.~~

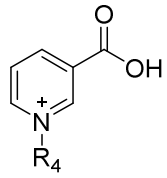
~~14. The method according to claim 13, wherein said ovulation disorder is selected from the group consisting of premature ovarian insufficiency (POI) and premature menopause.~~

~~15.~~6. ~~The u~~Use of the compound according to any one of claims 1-5~~7~~ for the manufacture of a medicament.

~~16.~~7. ~~The u~~Use of the compound according to any one of claim 1-5~~7~~ for the manufacture of a medicament for ~~use in~~ the treatment of an ovulation disorder.

~~17.~~8. The use ~~of the compound~~ according to claim 7~~16~~, wherein said ovulation disorder is selected from the group consisting of premature ovarian insufficiency (POI) and premature menopause.

~~18.~~9. Use of ~~A~~a compound of the formula (IV) or a pharmaceutically acceptable salt thereof



(IV)

wherein R_4 is a lower alkyl, an amide, a phenyl or a benzyl, for the manufacture of a medicament for the treatment ~~use in the treatment~~ of an ovulation disorder.

~~19.~~10. The use~~compound~~ according to claim 9~~18~~, wherein said lower alkyl is ethyl, propyl or isopropyl, or wherein R_4 is ethanamide, phenyl, or benzyl.

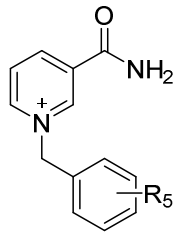
~~20. The compound according to claim 18 and 19 wherein R_4 is isopropyl.~~

~~21. The compound according to claim 18 wherein R_4 is ethanamide.~~

~~22. The compound according to claim 18 wherein R_4 is phenyl.~~

~~23. The compound according to claim 18 wherein R_4 is benzyl.~~

~~24.~~11. Use of ~~A~~a compound of formula (V) or a pharmaceutically acceptable salt thereof



(V)

wherein R_5 is H, F, Cl or a methoxy group, for the manufacture of a medicament for ~~use in~~ the treatment of an ovulation disorder.

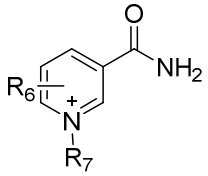
~~25.~~12. The use~~compound~~ according to claim 11~~24~~, wherein R_5 is H, F in the ortho position, Cl in the meta position, Cl in the para position, or a methoxy group in the meta position.

~~26. The compound according to claim 24 wherein R_5 is F in the ortho position.~~

~~27. The compound according to claim 24 wherein R_5 is Cl in the meta or para position.~~

~~28. The compound according to claim 24 wherein R_5 is a methoxy group in the meta position.~~

~~29.~~13. Use of ~~A~~a compound of formula (VI) or a pharmaceutically acceptable salt thereof



(VI)

wherein R_7 is a lower alkyl and R_6 is H or methyl, for the manufacture of a medicament for ~~use in~~ the treatment of an ovulation disorder.

~~30.~~14. The use~~compound~~ according to claim 13~~29~~, wherein R_7 is methyl, ethyl, propyl or isopropyl.

~~31. The compound according to claim 29 wherein R_7 is isopropyl.~~

~~32.~~15. The use~~compound~~ according to claim 13~~29~~, wherein:

R_7 is methyl and R_6 is H,~~.~~

R_7 is ethyl and R_6 is H,

R_7 is methyl and R_6 is methyl in the ortho position, or

R_7 is methyl and R_6 is methyl in the para position.

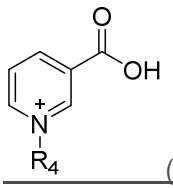
~~33. The compound according to claim 29 wherein R_7 is ethyl and R_6 is H.~~

~~34. The compound according to claim 29 wherein R_7 is methyl and R_6 is methyl in the ortho position.~~

~~35. The compound according to claim 29 wherein R_7 is methyl and R_6 is methyl in the para position.~~

~~36.~~16. Use of~~The compound~~ cyclopamine for the manufacture of a medicament for ~~use in~~ the treatment of an ovulation disorder.

~~37.~~17. Use of a ~~The~~ compound of formula (IV), a compound of formula (V), a compound of formula (VI), or cyclopamine~~according to claims 18-36 for use in promoting follicle maturation.~~,



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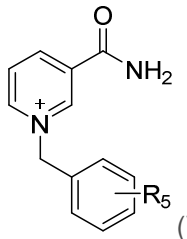

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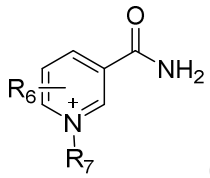


(VI),

for promoting follicle maturation.

~~38.~~18. The use ~~compound~~ according to any one of claims 9, 11, 13, and 16 ~~claims 18-36~~, wherein said ovulation disorder is selected from the group consisting of premature ovarian insufficiency (POI) and premature menopause.

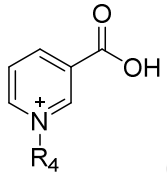
~~39. A method of treating an ovulation disorder comprising administering a therapeutically effective amount of the compound according to claims 18-36 or pharmaceutically acceptable salts thereof to a human or animal in need thereof.~~

~~40. The method according to claim 39, wherein said ovulation disorder is selected from the group consisting of premature ovarian insufficiency (POI) and premature menopause.~~

~~41. The use of the compound according to claims 18-36 for the manufacture of a medicament for the treatment of an ovulation disorder.~~

~~42. The use of the compound according to claim 41, wherein said ovulation disorder is selected from the group consisting of premature ovarian insufficiency (POI) and premature menopause.~~

~~43.~~19. Use of ~~A~~a pharmaceutical composition comprising a~~the~~ compound of formula (IV), a compound of formula (V), a compound of formula (VI), or cyclopamine



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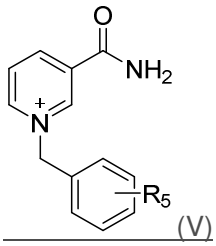
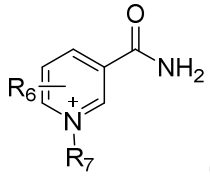


(V)



(VI),

for the manufacture of a medicament ~~according to any of the preceding claims~~ for ~~use in~~ the treatment of an ovulation disorder in a female individual.

~~44.~~20. The use ~~pharmaceutical composition~~ according to claim 19~~43~~, wherein the pharmaceutical composition further comprises~~ing~~ at least one pharmaceutically acceptable carrier and/or at least one additional active agent.

~~45. The pharmaceutical composition according to claims 43 and 44, further comprising an additional active agent.~~