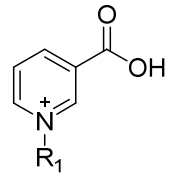
Claims

1. A compound of formula (III)

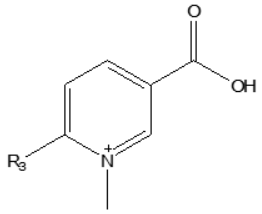


(III)

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 pharmaceutically acceptable salt thereof

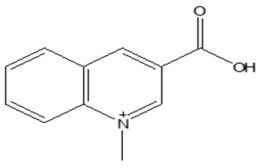


(I)

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



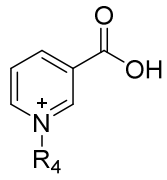
(II)

6. Use of the compound according to any one of claims 1-5 for the manufacture of a medicament.

7. Use of the compound according to any one of claim 1-5 for the manufacture of a medicament for the treatment of an ovulation disorder.

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

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

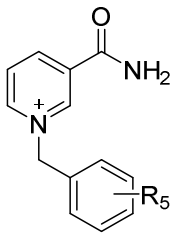


(IV)

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

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

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

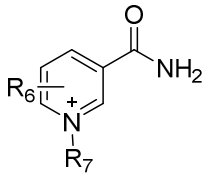


(V)

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

12. The use according to claim 11, 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.

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



(VI)

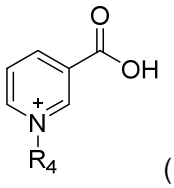
wherein R_7 is a lower alkyl and R_6 is H or methyl, for the manufacture of a medicament for the treatment of an ovulation disorder.

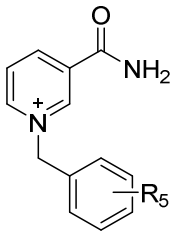
14. The use according to claim 13, wherein R_7 is methyl, ethyl, propyl or isopropyl.

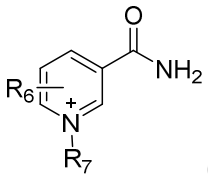
15. The use according to claim 13, wherein:
R_7 is methyl and R_6 is H,
R_7 is ethyl and R_6 is H,
R_7 is methyl and R_6 is methyl in the ortho position, or
R_7 is methyl and R_6 is methyl in the para position.

16. Use of cyclopamine for the manufacture of a medicament for the treatment of an ovulation disorder.

17. Use of a compound of formula (IV), a compound of formula (V), a compound of formula (VI), or cyclopamine,


(IV)

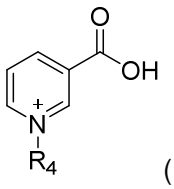

(V)


(VI),

for promoting follicle maturation.

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

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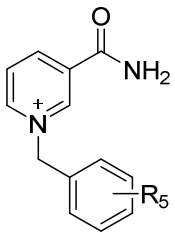
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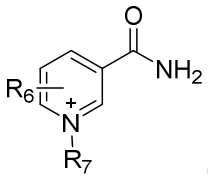

(VI),

for the manufacture of a medicament for the treatment of an ovulation disorder in a female individual.

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