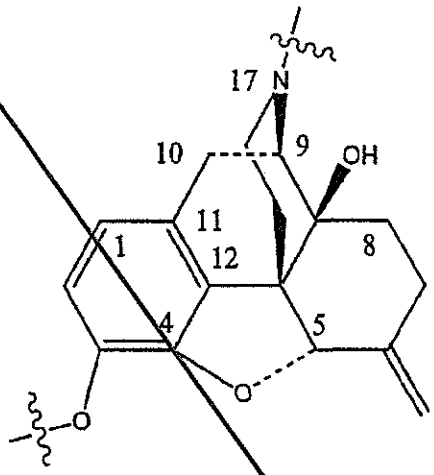
Claims

1. The use of a compound of the formula R-A-X, wherein:

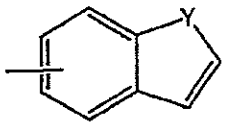
R is H, alkyl, allyl, phenyl, benzyl, or $(CH_2)_mR_4$, wherein m is from 0 to 6, and R_4 can be a ring structure,

A is

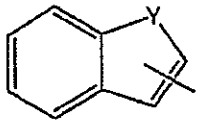


X can be hydrogen, allyl, cinnamoyl, crotonyl, $(CH_2)C_6H_5$-4F, $(CH_2)_nC=CR_1R_2$, $(CH_2)_nC\equiv CR_3$, $(CH_2)nR_5$, and $(CH_2)_mCHR_6R_7$ wherein m is 0 to 6 and n is from 0 to 6. R_3 can be H, alkyl, or the same as R4, wherein R4 is described above and R_5 can be alkyl, CN, COR_8, or structures selected from the group consisting of the following structures:

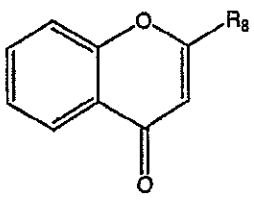
IX



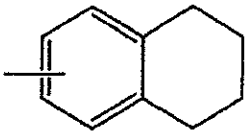
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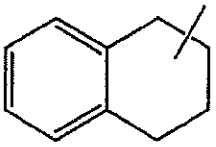
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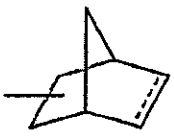
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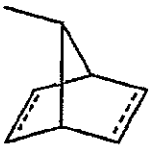
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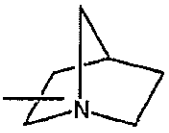
XIV



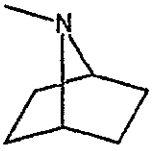
XV



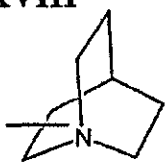
XVI



XVII



XVIII



, and

wherein Y can be O, S or N. R6 and R7 are each independently H or the same as R_4 as defined above; and R_8 is alkyl, or the same as R_4 as defined above, or the same as R_5 when R_5 can be the structures described above (IX – XVIII) for preparation of a medicament for preventing or treating a condition selected viral infections, organ damage, ; and diseases associated with overproduction of superoxide anion radical selected from atherosclerosis, TNF-α, selected from the group consisting of Crohn's disease, ulcerative colitis, organ failure, and pulmonary fibrosis, or iNOS, selected from colorectal

cancer and gastric carcinoma.

2, The use as claimed in claim 1, wherein said compound is nalmefene and said medicament comprises a daily dose of from 2 mg to 100 mg.

3. The use as claimed in either of claims 1 or 2, wherein said condition is prevention of organ damage.

4 The use as claimed in claim 3, wherein said organ damage is liver damage.

5. The use as claimed in claim 3, wherein said organ damage is kidney damage.

6 The use as claimed in claim 3, wherein the organ damage is lung damage.

7 The use as claimed in claim 1 or claim 2, wherein said condition is a isease associated with overproduction of superoxide anion radical, elected from atherosclerosis, TNF-a, selected from the group consisting of Crohn's disease, ulcerative colitis, organ failure, and pulmonary fibrosis, or iNOS,elected from colorectal cancer and gastric carcinoma.

8. The use of treating liver damage casued by alcohol abuse, bacterial infection, cirrhosis, hepatitis, or environmental toxins comprising administering to a subject in need thereof, a medicament comprising a therapeutically effective amount of a daily dose of from 2mg to 100mg of nalmefene.

9. The use according to claim 1 or claim 2, wherein said condition is hepatitis B .

10. The use of any of the preceding claims, wherein the pharmaceutical composition is administered orally.

11. The use of any of the preceding claims, wherein the pharmaceutical composition is administered parenterally.

12. The use of any of the preceding claims, wherein a compound of formula RAX is administered in combination with other therapeutic agents.

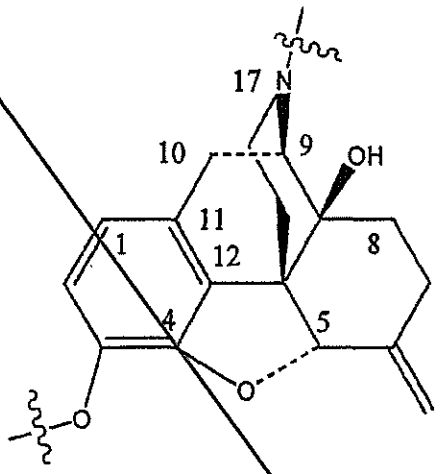
13. The use of claim 12 wherein said other compounds are selected from analgesics, anesthetics, antifungals, antibiotics, antiinflammatories, anthelmintics, antidotes, antiemetics, antihistamines, antihypertensives, antimalarials, antimicrobials, antipsychotics, antipyretics, antiseptics, antiarthritics, antituberculotics, antitussives, antivirals, cardioactive drugs, cathartics, chemotherapeutic agents, corticoids (steroids), antidepressants, depressants, diagnostic aids, diuretics, enzymes, expectorants, hormones, hypnotics, minerals, nutritional supplements, parasympathomimetics, potassium supplements, sedatives,

sulfonamides, stimulants, sympathomimetics, tranquilizers, urinary antiinfectives, vasoconstrictors, vasodilators, vitamins, xanthine derivatives, and the like.

14 A compound of the formula R-A-X, wherein:

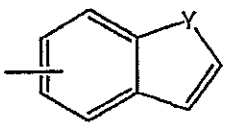
R is H, alkyl, allyl, phenyl, benzyl, or $(CH_{2m}R_4$, wherein m is from 0 to 6, and R_4 can be a ring structure,

A is

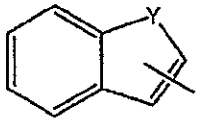


X can be hydrogen, allyl, cinnamoyl, crotonyl, $(CH_2)C_6H_5$-4F, $(CH2)_nC{=}CR_1R_2$, $(CH_2)_nC{\equiv}CR_3$, $(CH_2)_nR_5$, and $(CH_2)_mCHR_6R_7$, wherein m is 0 to 6 and n is from 0 to 6. R_3 can be H, alkyl, or the same as R_4, wherein R_4 is described above and R_5 can be alkyl, CN, COR_8, or structures selected from the group consisting of the following structures:

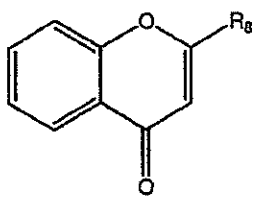
IX



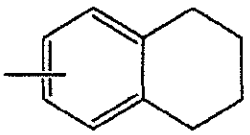
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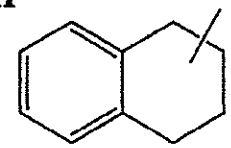
XI



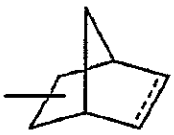
XII



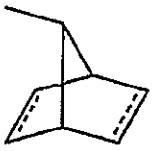
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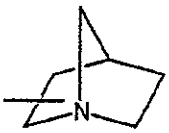
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XV



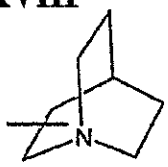
XVI



XVII



XVIII

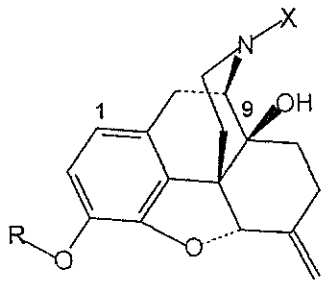


, and

wherein Y can be O, S or N. R_6 and R_7 are each independently H or the same as R_4 as defined above; and R_8 is alkyl, or the same as R_4 as defined above, or the same as R_5 when R_5 can be the structures described above (IX – XVIII) for preparation of a medicament for preventing or treating a condition selected viral infections, organ damage, , and diseases associated with overproduction of superoxide anion radical selected from atherosclerosis, TNF-a, selected from the group consisting of Crohn's disease, ulcerative colitis, organ failure, and pulmonary fibrosis, or iNOS, selected from colorectal cancer and gastric carcinoma

Claims

1. Use of a compound of the following formula XXVIII,



XXVIII

wherein R is H or alkyl, and X is hydrogen, allyl, cyclopropylmethyl, or alkyl, or a physiologically acceptable salt and/or acid derivative thereof, for the preparation of a medicament for treating or preventing a condition which is inflammatory organ damage, wherein said inflammatory organ damage is liver, lung or kidney damage, or a disease associated with overproduction of superoxide anion radical, TNF-α, and iNOS, wherein said disease is Crohn's disease, ulcerative colitis, or atherosclerosis.

2. The use according to claim 1, wherein said medicament comprises a compound of formula XXVIII, or a physiologically acceptable salt and/or acid derivative thereof, in a daily dose of from 2 mg to 100 mg.

3. The use according to claim 1 or 2, which is for prevention of inflammatory organ damage.

4. The use according to claim 3, wherein said inflammatory organ damage is liver damage.

5. The use according to claim 3, wherein said inflammatory organ damage is kidney damage.

6. The use according to claim 3, wherein the inflammatory organ damage is lung damage.

7. The use according to claim 1 or 2, wherein said condition is said disease associated with overproduction of superoxide anion radical, TNF-α, and iNOS consisting of Crohn's disease, ulcerative colitis, or atherosclerosis.

8. The use according to claim 2 or 4, wherein the condition is liver damage caused by alcohol abuse, bacterial infection, cirrhosis, hepatitis, or an environmental toxin.

9. The use according to any one of claims 1 to 8, wherein the medicament is formulated for oral administration.

10. The use according to claim 2 or 7, wherein the medicament is formulated for parenteral administration.

11. The use according to any one of claims 1 to 8, wherein the compound of formula XXVIII, or a physiologically acceptable salt and/or acid derivative thereof, is formulated for administration in combination with at least one other therapeutic agent which is an antibiotic, an antimicrobial, an antiviral which is anti-hepatitis or interferon, a vaccine, or a cardiovascular drug, or any combination thereof.

12. The use according to any one of claims 1 to 9 and 11, wherein the compound of formula XXVIII used is nalmefene, or a physiologically acceptable salt and/or acid derivative thereof.

13. The use of claim 4, wherein said condition is liver damage, said compound of formula XXVIII is nalmefene, and said medicament comprises a daily oral dose of from 2mg to 100mg of said nalmefene, or a physiologically acceptable salt and/or acid derivative thereof.

14. The use according to claim 8, wherein said liver damage is caused by hepatitis, said compound of formula XXVIII is nalmefene, and said medicament comprises a therapeutically effective amount of a daily oral dose of from 2mg to 100mg of said nalmefene, or a physiologically acceptable salt and/or acid derivative thereof.

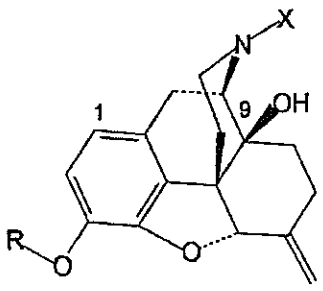
15. The use according to claim 8, wherein said liver damage is caused by bacterial infection, said compound of formula XXVIII is nalmefene, and said medicament comprises a therapeutically effective amount of a daily oral dose of from 2mg to 100mg of said nalmefene, or a physiologically acceptable salt and/or acid derivative thereof.

16. The use according to claim 8, wherein said liver damage is caused by alcoholic abuse, said compound of formula XXVIII is nalmefene, and said medicament comprises a therapeutically effective amount of a daily oral dose of from 2mg to 100mg of said nalmefene, or a physiologically acceptable salt and/or acid derivative thereof.

17. The use according to claim 8, wherein said liver damage is caused by cirrhosis, said compound of formula XXVIII is nalmefene, and said medicament comprises a therapeutically effective amount of a daily oral dose of from 2mg to 100mg of said nalmefene, or a physiologically acceptable salt and/or acid derivative thereof.

18. The use according to claim 7, wherein said condition is Crohn's disease, said compound of formula XXVIII is nalmefene, and said medicament comprises a daily oral dose of from 2 mg to 100 mg of said nalmefene, or a physiologically acceptable salt and/or acid derivative thereof.

19. A pharmaceutical composition for preventing or treating a condition which is inflammatory organ damage, wherein said inflammatory organ damage is liver, lung or kidney damage, or a disease associated with overproduction of superoxide anion radical, TNF-α, and iNOS, wherein said disease is Crohn's disease, ulcerative colitis, or atherosclerosis, comprising a compound of the formula XXVIII:



XXVIII

wherein R is H, or alkyl, and X is hydrogen, allyl, cyclopropylmethyl, or alkyl, or a physiologically acceptable salt and/or acid derivative thereof, and a pharmaceutically acceptable carrier.

20. The pharmaceutical composition according to claim 19, which comprises a daily dose of from 2 mg to 100 mg of a compound of formula XXVIII, or a physiologically acceptable salt and/or acid derivative thereof.

21. The pharmaceutical composition according to claim 19 or 20, which is for prevention of inflammatory organ damage.

22. The pharmaceutical composition according to claim 21, wherein said inflammatory organ damage is liver damage.

23. The pharmaceutical composition according to claim 21, wherein said inflammatory organ damage is kidney damage.

24. The pharmaceutical composition according to claim 21, wherein the inflammatory organ damage is lung damage.

25. The pharmaceutical composition according to claim 19 or 20, wherein said condition is said disease associated with overproduction of superoxide anion radical, TNF-α, and iNOS, consisting of Crohn's disease, ulcerative colitis, and atherosclerosis.

26. The pharmaceutical composition according to claim 20, wherein the condition is liver damage caused by alcohol abuse, a bacterial infection, cirrhosis, hepatitis, or an environmental toxin.

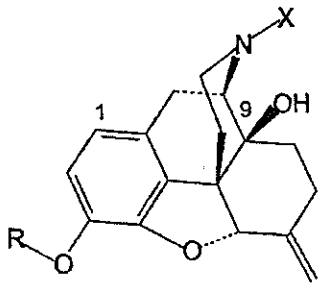
27. The pharmaceutical composition according to any one of claims 19 to 26, which is formulated for oral administration.

28. The pharmaceutical composition according to claim 20 or 25, which is formulated for parenteral administration.

29. The pharmaceutical composition according to any one of claims 19 to 28, wherein the compound of formula XXVIII, or a physiologically acceptable salt and/or acid derivative thereof, is formulated for administration in combination with at least one other therapeutic agent which is an antibiotic, an antimicrobial, an antiviral which is anti-hepatitis or interferon, a vaccine, or a cardiovascular drug, or any combination thereof.

30. The pharmaceutical composition according to any one of claims 19 to 27 and 29, wherein the compound of formula XXVIII is nalmefene, or a physiologically acceptable salt and/or acid derivative thereof.

31. A commercial package comprising a compound of the formula XXVIII:



XXVIII

wherein R is H, or alkyl, and X is hydrogen, allyl, cyclopropylmethyl, or alkyl, or a physiologically acceptable salt and/or acid derivative thereof,

together with instructions for use for preventing or treating a condition which inflammatory organ damage, wherein said inflammatory organ damage is liver, lung or kidney damage, or a disease associated with overproduction of superoxide anion radical, TNF-α, and iNOS, wherein said disease is Crohn's disease, ulcerative colitis, or atherosclerosis.

32. The commercial package according to claim 31, which comprises a daily dose of from 2 mg to 100 mg of a compound of formula XXVIII, or a physiologically acceptable salt and/or acid derivative thereof.

33. The commercial package according to claim 31 or 32, which is for prevention of inflammatory organ damage.

34. The commercial package according to claim 33, wherein said inflammatory organ damage is liver damage.

35. The commercial package according to claim 33, wherein said inflammatory organ damage is kidney damage.

36. The commercial package according to claim 33, wherein the inflammatory organ damage is lung damage.

37. The commercial package according to claim 31 or 32, wherein said condition is said disease associated with overproduction of superoxide anion radical, TNF-α, and iNOS, consisting of Crohn' s disease, ulcerative colitis, or atherosclerosis.

38. The commercial package according to claim 32, wherein the condition is liver damage caused by alcohol abuse, a bacterial infection, cirrhosis, hepatitis, or an environmental toxin.

39. The commercial package according to any one of claims 31 to 38, wherein the compound of formula XXVIII, or a physiologically acceptable salt and/or acid derivative thereof, is formulated for oral administration.

40. The commercial package according to claim 32 or 37, wherein the compound of formula XXVIII, or a physiologically acceptable salt and/or acid derivative thereof, is formulated for parenteral administration.

41. The commercial package according to any one of claims 31 to 38, wherein the compound of formula XXVIII, or a physiologically acceptable salt and/or acid derivative thereof, is formulated for administration in combination with at least one other therapeutic agent which is an antibiotic, an antimicrobial, an antiviral which is anti-hepatitis or interferon, a vaccine, or a cardiovascular drug, or any combination thereof.

42. A commercial package according to any one of claims 31 to 39 and 41, wherein the active compound of formula XXVIII is nalmefene, or a physiologically acceptable salt and/or acid derivative thereof.