CLAIMS

1. Use of a photoactivated composition for the manufacture of a medicament for oral disinfection and/or the treatment of an oral disease, wherein said composition comprises:

at least one oxidant,

at least one photoactivator capable of activating the oxidant; and

at least one healing factor chosen from hyaluronic acid, glucosamine and allantoin,

in association with a suitable carrier.

2. Use of a photoactivated composition for oral disinfection, wherein said composition comprises:

at least one oxidant;

at least one photoactivator capable of activating the oxidant; and

at least one healing factor chosen from hyaluronic acid, glucosamine and allantoin;

in association with a pharmacologically acceptable carrier.

3. Use of a photoactivated composition for the treatment of an oral disease and favor healing of said disease, wherein said composition comprises:

at least one oxidant;

at least one photoactivator capable of activating the oxidant; and

at least one healing factor chosen from hyaluronic acid, glucosamine and allantoin;

in association with a pharmacologically acceptable carrier.

4. Use of a photoactivated composition for the treatment of periodontitis, wherein said composition comprises:

at least one oxidant;

at least one photoactivator capable of activating the oxidant; and

at least one healing factor chosen from hyaluronic acid, glucosamine and allantoin;

in association with a pharmacologically acceptable carrier.

5. The use of any one of claims 1 and 3, wherein said oral disease is chosen from gingivitis, periodontitis, periodontal disease, oral thrush, lichen planus, stomatitis, herpes simplex lesion, oral mucositis, oral ulcers, oral submucous fibrosis, and glossitis.

6. The use according to any one of claims 1 to 5, wherein the oxidant is chosen from hydrogen peroxide, carbamide peroxide and benzoyl peroxide.

7. The use according to any one of claims 1 to 5, wherein the oxidant is chosen from a peroxy acid and a alkali metal percarbonate.

8. The use according to any one of claims 1 to 6, wherein the composition further comprises at least one hydrophilic gelling agent.

9. The use according to claim 8, wherein the hydrophilic gelling agent is chosen from glucose, modified starch, methyl cellulose, carboxymethyl cellulose, propyl cellulose, hydroxypropyl cellulose, carbopol® polymers, alginic acid, sodium alginate, potassium alginate, ammonium alginate, calcium alginate, agar, carrageenan, locust bean gum, pectin, and gelatin.

10. The use according to any one of claims 1 to 8, wherein the photoactivator is chosen from a xanthene derivative dye, an azo dye, a biological stain, and a carotenoid.

11. The use according to claim 10, wherein said xanthene derivative dye is chosen from a fluorene dye, a fluorone dye, and a rhodole dye.

12. The use according to claim 11, wherein said fluorene dye is chosen from a pyronine dye and a rhodamine dye.

13. The use according to claim 12, wherein said pyronine dye is chosen from pyronine Y and pyronine B.

14. The use according to claim 12, wherein said rhodamine dye is chosen from rhodamine B, rhodamine G and rhodamine WT.

15. The use according to claim 11, wherein said fluorone dye is chosen from fluorescein and fluorescein derivatives.

16. The use according to claim 15, wherein said fluorescein derivative is chosen from phloxine B, rose bengal, and merbromine.

17. The use according to claim 15, wherein said fluorescein derivative is chosen from eosin Y, eosin B and erythrosine B.

18. The use according to claim 17, wherein said fluorescein derivative is Eosin Y.

19. The use according to claim 10, wherein said azo dye is chosen from methyl violet, neutral red, para red, amaranth, carmoisine, allura red AC, tartrazine, orange G, ponceau 4R, methyl red, and murexide-ammonium purpurate.

20. The use according to claim 10, wherein said biological stain is chosen from saffranin O, basic fuchsin, acid fuschin, 3,3' dihexylocarbocyanine iodide, carminic acid, and indocyanine green.

21. The use according to claim 10, wherein said carotenoid is chosen from crocetin, a-crocin (S,S-diapo-S,S-carotenoic acid), zeaxanthine, lycopene, α-carotene, β-carotene, bixin, and fucoxanthine.

22. The use according to claim 10, wherein said carotenoid is present in the composition as a mixture chosen from saffron red powder, annatto extract and brown algae extract.

23. The use according to any one of claims 1 - 22, wherein said composition further comprises at least one chelating agent chosen from ethylenediaminetetraacetic acid (EDTA) and ethylene glycol tetraacetic acid (EGTA).

24. A method of full mouth disinfection and/or photodynamic assisted oral treatment of a patient which comprises the steps of:

a) applying in a patient's mouth a composition comprising at least one oxidant, at least one photoactivator capable of activating the oxidant; and at least one healing factor chosen from hyaluronic acid, glucosamine and allantoin; and

b) treating said mouth of step a) to actinic light for a time sufficient for said photoactivator to cause activation of said oxidant.

25. The method according to claim 23, wherein said oral treatment is for the treatment of an oral disease.

26. The method according to claim 25, wherein said oral disease is chosen from gingivitis, periodontitis, periodontal disease, oral thrush, lichen planus, stomatitis, herpes simplex lesion, oral mucositis, oral ulcers, oral submucous fibrosis, and glossitis.

27. A method for the treatment of periodontitis which comprises the steps of:

a) applying in a patient's mouth a composition comprising at least one oxidant, at least one photoactivator capable of activating the oxidant; and at least one healing factor chosen from hyaluronic acid, glucosamine and allantoin prior to a supragingival debridement, a scaling/root planning, or both; and

b) following said scaling/root planning, treating said mouth of step a) to actinic light for a time sufficient for said photoactivator to cause activation of said oxidant.

28. The method according to any one of claims 24 - 27, wherein said mouth is exposed to actinic light for a period of less than about 5 minutes.

29. The method according to any one of claims 24 - 27, wherein said mouth is exposed to actinic light for a period of about 60 seconds to about 5 minutes.

30. The method according to any one of claims 24 - 29, wherein said mouth is exposed to actinic light for a period of less than about 5 minutes per cm^2 of an area to be treated.

31. The method according to any one of claims 24 - 29, wherein said mouth is exposed to actinic light for a period of about 60 seconds to about 5 minutes per cm^2 of an area to be treated.

32. The method according to any one of claims 24 - 31, wherein the source of actinic light is over an area to be treated.

33. The method according to any one of claims 24 - 32, wherein said applying in a patient's mouth comprises applying said composition on a gingiva or a portion thereof.

34. The method according to any one of claims 24 - 32, wherein said applying in a patient's mouth comprises applying said composition near at least one tooth.

35. The method according to any one of claims 24 - 32, wherein said applying in a patient's mouth comprises applying said composition on at least one tooth.

36. The method according to any one of claims 34- 35, wherein said at least one tooth is exposed to actinic light for a period of about at least 10 seconds on a vestibular side, and of about at least 10 seconds on a oral side.

37. The method according to any one of claims 24 - 36, wherein said actinic light is visible light having a wavelength between about 400 nm and about 700 nm.

38. The method according to any one of claims 24 - 37, wherein the oxidant is chosen from hydrogen peroxide, carbamide peroxide and benzoyl peroxide.

39. The method according to any one of claims 24 - 38,, wherein the composition further comprises at least one hydrophilic gelling agent.

40. The method according to claims 39, wherein the hydrophilic gelling agent is chosen from glucose, modified starch, methyl cellulose, carboxymethyl cellulose, propyl cellulose, hydroxypropyl cellulose, carbopol® polymers, alginic acid, sodium alginate, potassium alginate, ammonium alginate, calcium alginate, agar, carrageenan, locust bean gum, pectin, and gelatin.

41. The method according to any one of claims 24 - 40, wherein the photoactivator is chosen from a xanthene derivative dye, an azo dye, a biological stain, and a carotenoid.

42. The method according to claim 41, wherein said xanthene derivative dye is chosen from a fluorene dye, a fluorone dye, and a rhodole dye.

43. The method according to claim 42, wherein said fluorene dye is chosen from a pyronine dye and a rhodamine dye.

44. The method according to claim 43, wherein said pyronine dye is chosen from pyronine Y and pyronine B.

45. The method according to claim 43, wherein said rhodamine dye is chosen from rhodamine B, rhodamine G and rhodamine WT.

46. The method according to claim 42, wherein said fluorone dye is chosen from fluorescein and fluorescein derivatives.

47. The method according to claim 46, wherein said fluorescein derivative is chosen from phloxine B, rose bengal, and merbromine.

48. The method according to claim 46, wherein said fluorescein derivative is chosen from eosin Y, eosin B and erythrosine B.

49. The method according to claim 48, wherein said fluorescein derivative is Eosin Y.

50. The method according to claim 41, wherein said azo dye is chosen from methyl violet, neutral red, para red, amaranth, carmoisine, allura red AC, tartrazine, orange G, ponceau 4R, methyl red, and murexide-ammonium purpurate.

51. The method according to claim 41, wherein said biological stain is chosen from saffranin O, basic fuchsin, acid fuschin, 3,3' dihexylocarbocyanine iodide, carminic acid, and indocyanine green.

52. The method according to claim 41, wherein said carotenoid is chosen from crocetin, a-crocin (S,S-diapo-S,S-carotenoic acid), zeaxanthine, lycopene, α-carotene, β-carotene, bixin, and fucoxanthine.

53. The method according to claim 41, wherein said carotenoid is present in the composition as a mixture chosen from saffron red powder, annatto extract and brown algae extract.

54. The method according to any one of claims 24 - 53, wherein said composition further comprises at least one chelating agent chosen from

ethylenediaminetetraacetic acid (EDTA) and ethylene glycol tetraacetic acid (EGTA).

CLAIMS

1. Use of a photoactivated composition for the manufacture of a medicament for treating red, swollen, or bleeding gum; or for reducing bad breath, wherein said composition comprises:

at least one oxidant,

at least one photoactivator which is a fluorescent compound; and

at least one healing factor chosen from hyaluronic acid, glucosamine and allantoin,

in association with a pharmacologically acceptable carrier.

2. The use according to claim 1, wherein the oxidant is selected from hydrogen peroxide, carbamide peroxide and benzoyl peroxide.

3. The use according to claim 1, wherein the oxidant is selected from a peroxy acid and an alkali metal percarbonate.

4. The use according to any one of claims 1 to 3, wherein the composition further comprises at least one hydrophilic gelling agent.

5. The use according to claim 4, wherein the hydrophilic gelling agent is selected from glucose, modified starch, methyl cellulose, carboxymethyl cellulose, propyl cellulose, hydroxypropyl cellulose, carbopol® polymers, alginic acid, sodium alginate, potassium alginate, ammonium alginate, calcium alginate, agar, carrageenan, locust bean gum, pectin, and gelatin.

6. The use according to any one of claims 1 to 5, wherein the photoactivator is selected from a xanthene derivative dye, an azo dye, a biological stain, and a carotenoid.

7. The use according to claim 6, wherein said xanthene derivative dye is selected from a fluorene dye, a fluorone dye, and a rhodole dye, and a combination of any of the foregoing.

8. The use according to claim 7, wherein said fluorene dye is selected from a pyronine dye and a rhodamine dye.

9. The use according to claim 8, wherein said pyronine dye is selected from pyronine Y and pyronine B.

10. The use according to claim 8, wherein said rhodamine dye is selected from rhodamine B, rhodamine G and rhodamine WT.

11. The use according to claim 7, wherein said fluorone dye is selected from fluorescein and fluorescein derivatives.

12. The use according to claim 11, wherein said fluorescein derivative is selected from phloxine B, rose bengal, and merbromine.

13. The use according to claim 11, wherein said fluorescein derivative is selected from eosin Y, eosin B and erythrosine B.

14. The use according to claim 13, wherein said fluorescein derivative is Eosin Y.

15. The use according to claim 6, wherein said azo dye is selected from methyl violet, neutral red, para red, amaranth, carmoisine, allura red AC, tartrazine, orange G, ponceau 4R, methyl red, and murexide-ammonium purpurate.

16. The use according to claim 6, wherein said biological stain is selected from saffranin O, basic fuchsin, acid fuschin, 3,3' dihexylocarbocyanine iodide, carminic acid, and indocyanine green.

17. The use according to claim 6, wherein said carotenoid is selected from crocetin, a-crocin (S,S-diapo-S,S-carotenoic acid), zeaxanthine, lycopene, α-carotene, β-carotene, bixin, and fucoxanthine.

18. The use according to claim 6, wherein said carotenoid is present in the composition as a mixture selected from saffron red powder, annatto extract and brown algae extract.

19. The use according to any one of claims 1-18, wherein said composition further comprises at least one chelating agent selected from ethylenediaminetetraacetic acid (EDTA) and ethylene glycol tetraacetic acid (EGTA).

20. The use according to any one of claims 1-19, wherein the composition further comprises a biofilm or a dental plaque disclosing agent.

21. The use according to any one of claims 1-20, wherein the composition is adapted to be topically applied on a patient's oral mucosa and wherein exposure of said composition to actinic light causes activation of the fluorescent compound.

22. The use according to claim 21, wherein exposure of the composition to actinic light for a period of less than about 5 minutes causes activation of said fluorescent compound.

23. The use according to claim 21, wherein exposure of said composition to actinic light for a period of about 60 seconds to about 5 minutes causes activation of said fluorescent compound.

24. The use according to claim 21, wherein exposure of said composition to actinic light for a period of less than about 5 minutes per cm^2 of an area to be treated causes activation of said fluorescent compound.

25. The use according to claim 21, wherein exposure of said composition to actinic light for a period of about 60 seconds to about 5 minutes per cm^2 of an area to be treated causes activation of said fluorescent compound.

26. The use according to any one of claims 21-25, wherein the source of actinic light is over an area to which said composition has been applied.

27. The use according to any one of claims 21-26, wherein said actinic light is visible light having a wavelength between about 400 nm and about 700 nm.