and specific oral diseases, and additional improvements, as well as methods of administration or uses thereof.

Summary

The present disclosure provides a composition for use in oral hygiene, comprising an oral hygiene effective amount of a probiotic, the probiotic comprising a *Lactobacillus helveticus* strain.

In one aspect of the present disclosure, there is provided a composition for use in oral hygiene, comprising an oral hygiene effective amount of a probiotic, the probiotic comprising a *Lactobacillus helveticus* LAFTI L10 strain.

In another aspect of the present disclosure, there is provided a composition for use in oral hygiene, wherein the probiotic comprises *Lactobacillus helveticus* R0052 and *Lactobacillus plantarum* SD5870.

In one embodiment of the present disclosure, there is provided a composition for use in oral hygiene, comprising an oral hygiene effective amount of a probiotic, the probiotic comprising a *Lactobacillus helveticus* strain and a *Lactobacillus plantarum* strain.

In another embodiment of the present disclosure, there is provided a composition for use in oral hygiene, comprising an oral hygiene effective amount of a probiotic, the probiotic comprising a *Lactobacillus helveticus* strain and *Bifidobacterium longum* SD5846.

The present disclosurealso provides a composition for use in preventing dental caries, comprising a dental caries preventing effective amount of a probiotic, the probiotic comprising *Lactobacillus plantarum* SD5870.

In another aspect of the present disclosure, there is provided a composition for use in treating or preventing dental caries, comprising a dental caries preventing effective amount of a probiotic, the probiotic comprising *Lactobacillus plantarum* SD5870.

The present disclosurealso provides a composition for use in preventing dental caries, comprising a dental caries preventing effective amount of a probiotic, the probiotic comprising *Bifidobacterium longum* SD5846.

In another embodiment of the present disclosure, there are provided uses of the aforementioned probiotics for oral hygiene.

In another embodiment of the present disclosure, there are provided uses of the aforementioned probiotics for the preparation of a medicament for oral hygiene.

Claims:

1. A composition for use in oral hygiene, comprising an oral hygiene effective amount of a probiotic, the probiotic comprising a *Lactobacillus helveticus* LAFTI L10 strain.

2. The composition for use in oral hygiene according to claim 1, wherein the probiotic further comprises *Lactobacillus helveticus* R0052.

3. The composition for use in oral hygiene according to any one of claims 1 to 2, wherein the probiotic further comprises another probiotic bacteria.

4. The composition for use in oral hygiene according to any one of claims 1 to 3, wherein the probiotic further comprises one or more lactobacilli.

5. The composition for use in oral hygiene according to any one of claims 1 to 4, wherein the probiotic further comprises a *Lactobacillus plantarum* strain.

6. The composition for use in oral hygiene according to any one of claims 1 to 5, wherein the probiotic further comprises *Lactobacillus plantarum* SD5870.

7. The composition for use in oral hygiene according to any one of claims 1 to 6, wherein the probiotic consists essentially of the *Lactobacillus helveticus* LAFTI L10 strain and *Lactobacillus plantarum* SD5870.

8. A composition for use in oral hygiene, wherein the probiotic comprises *Lactobacillus helveticus* R0052 and *Lactobacillus plantarum* SD5870.

9. The composition for use in oral hygiene according to any one of claims 1 to 8, wherein the probiotic further comprises one or more bifidobacteria.

10. The composition for use in oral hygiene according to claim 1, wherein the probiotic comprises *Lactobacillus helveticus* LAFTI L10 and *Bifidobacterium longum* SD5846.

11. A composition for use in treating or preventing dental caries, comprising a dental caries preventing effective amount of a probiotic, the probiotic comprising *Lactobacillus plantarum* SD5870.

12. The composition for use in treating or preventing dental caries according to claim 11, wherein the probiotic further comprises *Streptococcus salivarius*.

13. The composition for use in treating or preventing dental caries according to claims 11 or 12, wherein the probiotic further comprises *Streptococcus salivarius* M18.

14. The composition for use in treating or preventing dental caries according to any one of claims 11 to 13, wherein the probiotic further comprises *Streptococcus salivarius* K12.

15. The composition for use in treating or preventing dental caries according to claim 11, wherein the probiotic comprises *Lactobacillus plantarum* SD5870 and *Streptococcus salivarius* M18.

16. The composition for use in oral hygiene according to any one of claims 1 to 10, further comprising a remineralization agent.

17. The composition for use in oral hygiene according to claim 16, wherein the remineralization agent comprises casein phosphate peptide-amorphous calcium phosphate.

18. The composition for use in oral hygiene according to any one of claims 1 to 10 and 16-17, further comprising a prebiotic.

19. The composition for use in oral hygiene according to any one of claims 1 to 10 and 16-18, further comprising a carrier, diluent, excipient or any mixture thereof.

20. Use of a composition as defined in any one of claims 1 to 19 for preparation of a medicament for oral hygiene in a subject.

21. The use according to claim 20, wherein the composition is formulated as a tablet, pill, powder, lozenge, sachet, cachet, elixir, suspension, emulsion, solution, syrup, aerosol, capsule, paste, food or confectionary.

22. The use according to claim 20, wherein the composition is formulated as a toothpaste, chewing gum or effervescent tablet.

23. The use according to claim 20 to 22, wherein the subject is a human, dog, cat or horse.

24. The use according to claim 20 to 23, wherein oral hygiene comprises preventing or treating dental caries, halitosis, gingivitis, mouth ulcers, aphthous stomatitis, candidiasis and/or a periodontal disease.

25. The use according to claim 20 to 24 for treating or preventing dental caries.

26. A commercial package comprising a *Lactobacillus helveticus* strain and instructions for its use in oral hygiene in a subject.

27. A commercial package comprising a composition as defined in any one of claims 1 to 15 and 16 to 19 and instructions for its use in oral hygiene in a subject.

28. The commercial package according to claim 27, wherein the composition is formulated as a tablet, pill, powder, lozenge, sachet, cachet, elixir, suspension, emulsion, solution, syrup, aerosol, capsule, paste, food or confectionary.

29. The commercial package according to claim 27, wherein the composition is formulated as a toothpaste, chewing gum or effervescent tablet.

30. The commercial package according to any one of claims 26 to 29, wherein the subject is a human, dog, cat or horse.

31. The commercial package according to any one of claims 26 to 30, wherein oral hygiene comprises preventing or treating dental caries, halitosis, gingivitis, mouth ulcers, aphthous stomatitis, candidiasis and/or a periodontal disease.

32. The commercial package according to any one of claims 26 to 31, wherein oral hygiene comprises preventing dental caries.