CLAIMS

1. A biophotonic composition comprising:

a first chromophore; and

a gelling agent present in an amount sufficient to gel the composition and render the biophotonic composition substantially resistant to leaching such that less than 15% by weight of the total chromophore amount leaches out of the biophotonic composition in use, measured by less than 15% by weight of the total chromophore amount leaching out of the biophotonic composition into a phosphate saline buffer solution contained in a receptor compartment, through a 2.4-3 cm diameter polycarbonate (PC) membrane with a thickness of 10 microns and a pore size of 3 microns, having a top side onto which a 2 mm thick layer of the biophotonic composition is placed for 5 minutes at room temperature and pressure, and a bottom side which is in direct contact with the phosphate saline buffer solution.

2. The biophotonic composition of claim 1, wherein the biophotonic composition is translucent.

3. The biophotonic composition of claim 2, wherein the translucency comprises at least 20%, 30%, 40%, 45%, 50%, 55%, 60%, 65%, 70%, 75%, 85%, 90%, 95% or 100% transmittance of light through a 2mm thick composition.

4. The biophotonic composition of any of claims 1 to 3, having a viscosity of about 10,000-100,000, 10,000-90,000, 10,000-80,000, 10,000-70,000, 15,000-80,000, 15,000-70,000, or 15,000-40,000 cP when measured using a Wells-Brookfield cone/plate viscometer and a CP-51 cone at room temperature at a rotational speed of 2 rpm and a torque >10%.

5. The biophotonic composition of any of claims 1 to 4, wherein the gelling agent is selected from the group of cross-linked polymers.

6. The biophotonic composition of any of claims 1 to 5, wherein the gelling agent is selected from at least one of a hydrophilic material, a hygroscopic material or a hydrated polymer.

7. The biophotonic composition of any of claims 1 to 6, wherein the gelling agent is polyanionic in charge character.

8. The biophotonic composition of any one of claims 1 to 7, wherein the gelling agent is present in an amount of about 0.5% to about 5% by weight of the final composition.

9. The biophotonic composition of any of claims 1 to 6, wherein the gelling agent comprises a protein-based polymer.

10. The biophotonic composition of any of claims 1 to 6, wherein the gelling agent comprises a polysaccharide.

11. The biophotonic composition of any of claims 1 to 10, further comprising a humectant.

12. The biophotonic composition of any of claims 1 to 11, wherein the chromophore is in solution in the composition.

13. The biophotonic composition of claim 12, wherein the chromophore solution and the gelling agent form a hydrocolloid.

14. The biophotonic composition of any of claims 1 to 13, further comprising an oxygen-releasing agent.

15. The biophotonic composition of claim 14, wherein the oxygen-releasing agent is a peroxide or a peroxide-releasing agent.

16. The biophotonic composition of any of claims 1 to 15, wherein the first chromophore is a xanthene dye.

17. The biophotonic composition of claim 16, wherein the first chromophore is selected from Eosin Y, Eosin B, Erythrosin B, Fluorescein, Rose Bengal and Phloxin B.

18. The biophotonic composition of any of claims 1 to 17, wherein the first chromophore is present in an amount of about 0.001% to about 40% by weight of the total composition.

19. The biophotonic composition of any of claims 1 to 18, wherein the composition further comprises a second chromophore.

20. The biophotonic composition of claim 19, wherein the first chromophore has an emission spectrum that overlaps at least 20% with an absorption spectrum of the second chromophore.

21. The biophotonic composition of claim 19 or 20, wherein the first chromophore is Eosin Y, and the second chromophore is one or more selected from Fluorescein, Phloxine B and Erythrosine B.

22. The biophotonic composition of any of claims 19 to 21, wherein the second chromophore is present in an amount of about 0.0001% to about 40% by weight of the total composition.

23. The biophotonic composition of any of claims 1 to 22, wherein the pH of the composition is within the range 4.0 to 7.0.

24. A method for providing cosmetic treatment, comprising:

- applying topically a biophotonic composition according to any of claims 1 to 23 to a skin; and
- illuminating said biophotonic composition with light having a wavelength that overlaps with an absorption spectrum of the first chromophore.

25. The method of claim 24, wherein the cosmetic treatment promotes skin rejuvenation.

26. The method of claim 24 wherein the skin has acne.

27. The method of any of claims 24 to 26, wherein the biophotonic composition is illuminated for about 1 minute to about 30 minutes, preferably less than 20 minutes, 15 minutes, 10 minutes or about 5 minutes.

28. The method of any of claims 24 to 27, wherein the biophotonic composition is illuminated with visible non-coherent light or with visible non-coherent light in the form of violet and/or blue light.

29. A composition according to any one of claims 1 to 23 for use in therapy.

30. A kit comprising:

a composition according to any of claims 1 to 23, and

one or more of a light source for activating the chromophore, instructions for use of the composition and/or the light source, a dressing, and a device for applying and/or removing the composition from a treatment area.

31. A kit comprising:

a first component comprising a first chromophore; and

a second component comprising a gelling agent present in an amount sufficient to gel or thicken the composition and render the biophotonic composition substantially resistant to leaching such that less than 15% by weight of the total chromophore amount leaches out of the biophotonic composition in use measured by less than 15% by weight of the total chromophore amount leaching out of the biophotonic composition into a phosphate saline buffer solution contained in a receptor compartment, through a 2.4-3 cm diameter polycarbonate (PC) membrane with a thickness of 10 microns and a pore size of 3 microns, having a top side onto which a 2 mm thick layer of the biophotonic composition is placed for 5 minutes at room temperature and pressure, and a bottom side which is in direct contact with the phosphate saline buffer solution.

32. A kit comprising:

a first component comprising a composition according to any of claims 1 to 23, and

a second component comprising an oxygen-releasing agent.