Claims

1. Use of midostaurin, or a pharmaceutically acceptable salt thereof in the manufacture of a medicament for treating a skin-related disease or disorder.

2. The use of claim 1, wherein the skin-related disease or disorder is skin pigmentation disorder.

3. Use of a multi- targeting protein kinase inhibitor or a salt thereof in the manufacture of a medicament for reducing skin pigmentation.

4. The use of any one of claims 1 to 3, wherein the midostaurin, or a pharmaceutically acceptable salt thereof is midostaurin.

5. The use of any one of claims 1 to 4, wherein the skin-related disease or disorder is a skin hyperpigmentation condition.

6. The use of claim 5, wherein the skin hyperpigmentation condition comprises a sunspot or an age spot.

7. The use of claim 5, wherein the skin hyperpigmentation condition comprises melasma, post-inflammatory hyperpigmentation, posttraumatic pigmentation, discoid lupus erythematous, freckles, plaques gravidarum, nevus of Ota, or aging pigmentation.

8. The use of any one of claims 1 to 7, wherein the skin-related disease or disorder is melasma.

9. The use of any one of claims 1 to 8, wherein the skin is on a subject’s face.

10. The use of any one of claims 7 to 9, wherein the melasma is chloasma.

11. The use of any one of claims 7 to 10, wherein the melasma is caused by or exacerbated by one or more of: birth control pills, pregnancy, hormone therapy, stress, thyroid disease, sunlight exposure, inflammation, familial predisposition, or free radicals.

12. The use of any one of claims 7 to 11, wherein the use comprises reducing the size of abnormal skin pigmentation, reducing the intensity of abnormal skin pigmentation, and/or eliminating the abnormal skin pigmentation associated with the melasma.

13. The use of any one of claims 1 to 12, wherein the use comprises reducing melanin amount in an area of the skin by at least 25% compared to a similar area of skin in the same subject without the treatment.

14. The use of any one of claims 1 to 12, wherein the use comprises reducing melanin amount in an area of the skin by at least 1.0 according to Melanin Distribution Score compared to a similar area of skin in the same subject without the treatment.

15. The use of any one of claims 1 to 12, wherein the use comprises reducing melanin amount in an area of the skin by at least 1.0 according to Fontana – Masson staining scoring standard compared to a similar area of skin in the same subject without the treatment.

16. The use of any one of claims 1 to 15, wherein the use does not create moderate or severe skin irritation in the subject.

17. The use of any one of claims 1 to 16, , wherein the medicament is formulated for topical administration to a skin of a subject, wherein the skin is associated with a skin-related disease or disorder.

18. The use of claim 17, wherein the medicament is formulated for administration at a dose from about 0.01 mg to about 20 mg per day.

19. The use of claim 17, wherein the medicament is formulated for administration at a dose from about 0.1 mg to about 10 mg per day.

20. The use of claim 17, wherein the medicament is formulated for administration at a dose of about 0.1 mg per day, about 0.2 mg per day, about 0.3 mg per day, about 0.4 mg per day, about 0.5 mg per day, about 0.6 mg per day, about 0.7 mg per day, about 0.8 mg per day, about 0.9 mg per day, about 1 mg per day, about 1.5 mg per day, about 2 mg per day, about 2.5 mg per day, about 3 mg per day, about 3.5 mg per day, about 4 mg per day, about 4.5 mg per day, or about 5 mg per day.

21. The use of any one of claims 17 to 20, wherein the medicament is formulated for administration at a dose that is 80% less than that for 2% hydroquinone cream, 70% less than that for 2% hydroquinone cream, or 50% less than that for 2% hydroquinone cream.

22. The use of any one of claims 17 to 21, wherein the medicament is formulated for administration once a day.

23. The use of any one of claims 17 to 21, wherein the medicament is formulated for administration twice a day.

24. The use of any one of claims 17 to 21, wherein the medicament is formulated for administration once a day or twice a day for at least one week.

25. A topical pharmaceutical composition comprising

a) a multi-targeting protein kinase inhibitor (optionally midostaurin) or a pharmaceutically acceptable salt thereof in an amount of 0.001% to about 20% wt;

b) a carrier vehicle; and

c) an excipient;

wherein the topical pharmaceutical composition is formulated for topical administration.

26. The topical pharmaceutical composition of claim 25, wherein the excipient comprises a surfactant, a penetration enhancer, an antioxidant, a sun-screening agent, a viscosity modifier, a pH stabilizer, or a moisturizer, or any combination thereof.

27. The topical pharmaceutical composition of claim 25 or 26, wherein the topical pharmaceutical composition is in a form selected from an ointment, a gel, a cream, a lotion, a solution, an emulsion, a paste, a patch, a wipe, a swab, and a pad.

28. The topical pharmaceutical composition of any one of claims 25 to 27, wherein the topical pharmaceutical composition comprises:

- midostaurin or a pharmaceutically acceptable salt thereof in an amount of about 0.01% to about 5% wt;
- a carrier vehicle in an amount of about 30% to about 70% wt;
- a surfactant in an amount of about 5% to about 50% wt;
- optionally a moisturizer in an amount of about 5% to about 30% wt;
- optionally a penetration enhancer in an amount of about 1% to about 40% wt;
- optionally a viscosity modifier in an amount of about 0.01% to about 5% wt; and
- an antioxidant in an amount of about 0.001 % to 5 % wt.

29. A kit comprising a package enclosing the topical pharmaceutical composition of any one of claims 25 to 28.