[006] There is provided a composition comprising (a) lycopene; (b) phytoene and phytofluene; and (c) carnosic acid, wherein the weight ratio of (a) to (b) is from 1:0.05 to 1:0.9. According to one aspect, there is provided a composition comprising (a) lycopene; (b) phytoene and phytofluene; and (c) carnosic acid, wherein the weight ratio of (a) to (b) is from 1:0.3 to 1:0.6, and wherein said composition synergistically inhibits ultraviolet B (UVB)-induced interleukin 6 (IL-6) release.

[007] There is provided a method for improving one or more skin parameters in a subject in need thereof, comprising the step of administering to the subject a therapeutically effective amount of the herein disclosed composition, thereby improving one or more skin parameters in the subject.

[008] In some examples, the weight ratio of lycopene and carnosic acid is from 1:0.05 to 1:0.9.

[009] In some examples, the composition further comprises tocopherol.

[010] In some examples, the weight ratio of lycopene and tocopherol is from 1:0.05 to 1:0.9.

[011] In some examples, the composition further comprises beta-carotene.

[012] In some examples, the weight ratio of lycopene and beta-carotene is from. 1:0.005 to 1:0.5.

[013] In some examples, the composition is an oral composition.

[014] In some examples, the composition further comprises a nutraceutical, a cosmeceutical, or a pharmaceutical acceptable excipient.

[015] According to another aspect, there is provided the composition as defined herein for use in improving one or more skin parameters in a subject in need thereof, wherein said one or more skin parameters are selected from the group consisting of: face lines/wrinkles, mean skin carotenoid level, skin luminosity, skin radiance, and ultraviolet radiation (UV)-induced damage,

[019] In some examples, the method comprises a step of determining the level of a carotenoid in the skin of a subject, wherein a reduced level of said carotenoid in the skin of the subject compared to a control baseline is indicative of the subject is suitable for treatment using the herein disclosed composition.

[020] In some examples, the subject is afflicted with a reduced level of a carotenoid.

[021] In some examples, the skin is the palm skin.

[022] In some examples, improving UV-induced damage in a subject comprises preventing or treating a skin-related condition caused by UV radiation in the subject.

[023] In some examples, treating comprises inhibiting the production of TNF-alpha, IL-6, erythema reduction, or any combination thereof, in the subject.

[023a] In another aspect, there is provided use of the composition as described herein, in the manufacture of a medicament for the treatment of UV-induced damage in a subject in need thereof.

[024] Unless otherwise defined, all technical and/or scientific terms used herein have the same meaning as commonly understood by one of ordinary skill in the art to which the disclosure pertains. Although methods and materials similar or equivalent to those described herein can be used in the practice or testing of embodiments of the disclosure, exemplary methods and/or materials are described below. In case of conflict, the patent specification, including definitions, will control. In addition, the materials, methods, and examples are illustrative only and are not intended to be necessarily limiting.

[025] Further embodiments, examples and the full scope of applicability of the present disclosure will become apparent from the detailed description given hereinafter. However, it should be understood that the detailed description and specific examples, while indicating preferred embodiments of the disclosure, are given by way of illustration only, since various changes and modifications within the spirit and scope of the disclosure will become apparent to those skilled in the art from this detailed description.

CLAIMS

What is claimed is:

1. A composition comprising (a) lycopene; (b) phytoene and phytofluene; and (c) carnosic acid, wherein the weight ratio of (a) to (b) is from 1:0.3 to 1:0.6, and wherein said composition synergistically inhibits ultraviolet B (UVB)-induced interleukin 6 (IL-6) release.
2. The composition of claim 1, wherein the weight ratio of lycopene and carnosic acid is from 1:0.3 to 1:0.9.
3. The composition of claim 1 or 2, wherein said composition further comprises tocopherol.
4. The composition of claim 3, wherein the weight ratio of lycopene and tocopherol is from 1:0.05 to 1:0.9.
5. The composition of any one of claims 1-4, wherein said composition further comprises beta-carotene.
6. The composition of claim 5, wherein the weight ratio of lycopene and beta-carotene is from 1:0.005 to 1:0.5.
7. The composition of any one of claims 1-6, wherein said composition is an oral composition.
8. The composition of any one of claims 1-7, further comprising a nutraceutical, a cosmeceutical, or a pharmaceutical acceptable excipient.
9. The composition of any one of claims 1-8, for use in improving one or more skin parameters in a subject in need thereof, wherein said one or more skin parameters are selected from the group consisting of: face lines/wrinkles, mean skin carotenoid level, skin luminosity, skin radiance, and ultraviolet radiation (UV)-induced damage, wherein improving wrinkles comprises any one of: reducing the number of wrinkles on a subject's skin and/or face, reducing the depth of wrinkles on a subject's skin and/or face, reducing the development of wrinkles on a subject's skin and/or face, promoting the filing of existing wrinkles on a subject's skin and/or face, and any combination thereof.

10. The composition of any one of claims 1-8, being a cosmeceutical composition.
11. Use of the composition of any one of claims 1-8, in the manufacture of a medicament for the treatment of UV-induced damage in a subject in need thereof.