Specifically, IL-1β is translated in macrophages during NLRP3 activation as an inactive pro-protein that is cleaved by caspase-1 and secreted as the pro-inflammatory cytokine (Lopez-Castejon and Brough, 2011). The inflammatory cytokine IL-1β is a master regulator of inflammation and controls diverse inflammatory phenotypes at the cellular level including the recruitment activation of immune cells, the release of inflammatory signals such as nitric oxide and chemokines, as well as mediating gross metabolic and physiologic changes associated with inflammation such as fever and cortisol release. IL-1β is also linked with diseases associated with chronic sterile inflammation (Dinarello, 2011).

[0010] Due to the prevalence of diseases and health condition involving chronic sterile inflammation, there is great need for therapeutic drugs that can inhibit inflammation without resulting in severe or complicating side effects. There is a particular need for new therapeutics that can be used to safely treat a disease state involving sterile inflammation for long periods of time.

[0011] It will be clearly understood that, if a prior art publication is referred to herein, this reference does not constitute an admission that the publication forms part of the common general knowledge in the art in Australia or in any other country.

SUMMARY

[0011a] In a first aspect, the present disclosure refers to a composition comprising:

a) withaferin A, or an extract of one or more plants of the genera Withania containing withaferin A, wherein the extract of plant(s) of the genera Withania comprises an extract of ashwagandha;

b) one or more omega-3 fatty acids, wherein the one or more omega-3 fatty acids are selected from the group consisting of docosahexaenoic acid (DHA), eicosapentaenoic acid (EPA) and combinations thereof, or a source of said omega-3 fatty acid(s);

c) curcumin, or one or more plant extract(s) of the genera Curcuma containing curcumin; and

(d) piperine, or one or more plant extract(s) of the genera Piper containing piperine.

[0011b] In another aspect, the present disclosure refers to a composition disclosed herein, for use in protecting a subject from sterile inflammation.

[0011c] In yet another aspect, the present disclosure refers to a composition disclosed herein, for use in treating and/or preventing a condition associated with sterile inflammation.

[0011d] In yet another aspect, the present disclosure refers to a use of a composition disclosed herein, in the manufacture of a medicament for protecting a subject from sterile inflammation.

[0011e] In a further aspect, the present disclosure refers to a use of a composition of any one of claims 1 to 10, in the manufacture of a medicament for treating and/or preventing a condition associated with sterile inflammation.

[0012] The present disclosure is directed to a composition for inhibiting inflammation, which may at least partially overcome at least one of the abovementioned disadvantages or provide the consumer with a useful or commercial choice.

[0013] With the foregoing in view, the present disclosure in one form, resides broadly in a composition comprising one or more natural products. Preferably, the composition comprises one or more natural products in a synergistic combination.

[0014] Preferably, the natural products are selected from compounds that can be isolated from cruciferous vegetables, compounds that can be isolated from plants of the genera *Withania*, *Brassica*, *Armoracia*, *Barbarea*, *Diplotaxis*, *Eruca*, *Lepidium*, *Nasturtium*, *Raphanus*, *Wasabia*, *Curcuma*, *Piper*, *Gardenia*, *Berberis*, *Silybum*, *Plectranthus, Vitis, Vaccinum, Rubus, Rheum,* or *Cannabis*, and compounds that can be isolated from various plants, including but not limited to rhubarb, buckthorn, Japanese knotweed, black pepper, and wheat germ.

[0015] In particularly preferred examples, the composition can comprise one or more natural products selected from the group consisting of withaferin A, sulforaphane, berteroin, genipin, berberine, resveratrol, emodin, piperine, spermidine, beta-hydroxybutyric acid, silybin, forskolin, indole-3-carbinol and cannabidiol.

CLAIMS

1. A composition comprising:

a) withaferin A, or an extract of one or more plants of the genera *Withania* containing withaferin A, wherein the extract of plant(s) of the genera *Withania* comprises an extract of ashwagandha;

b) one or more omega-3 fatty acids, wherein the one or more omega-3 fatty acids are selected from the group consisting of docosahexaenoic acid (DHA), eicosapentaenoic acid (EPA) and combinations thereof, or a source of said omega-3 fatty acid(s);

c) curcumin, or one or more plant extract(s) of the genera *Curcuma* containing curcumin; and

(d) piperine, or one or more plant extract(s) of the genera *Piper* containing piperine.

2. The composition of claim 1, further comprising one or more pharmaceutically acceptable carriers, diluents and/or excipients.

3. The composition of claim 1 or claim 2, wherein the composition is formulated for oral administration.

4. The composition of any one of claims 1 to 3, wherein the composition is in the form of a powder, a liquid solution, a liposomal solution, a suspension, a dispersion, an emulsion, a tablet, a pill or a capsule.

5. A composition of any one of claims 1 to 4 for use in protecting a subject from sterile inflammation.

6. A composition of any one of claims 1 to 4 for use in treating and/or preventing a condition associated with sterile inflammation.

7. Use of a composition of any one of claims 1 to 4 in the manufacture of a medicament for protecting a subject from sterile inflammation.

8. Use of a composition of any one of claims 1 to 4 in the manufacture of a medicament for treating and/or preventing a condition associated with sterile inflammation.