CLAIMS

What is claimed is:

1. A method for reducing eosinophil effector function in a human in need thereof, comprising administering to the human a composition comprising salmonid oil or at least one biological active isolated from salmonid oil to reduce eosinophil effector function, wherein the salmonid oil is obtained from mild enzymatic hydrolysis of off-cuts of salmonid fish.

2. A method for treating an eosinophilic inflammatory condition, disorder, or disease in a human in need thereof, comprising: administering to the human an effective dose of a composition comprising salmonid oil or at least one biological active isolated from salmonid oil to treat the eosinophilic inflammatory condition, disorder, or disease, wherein the salmonid oil is obtained from mild enzymatic hydrolysis of off-cuts of salmonid fish.

3. The method of claim 2, wherein the eosinophilic inflammatory condition, disorder or disease is a chronic inflammatory disorder of the airways.

4. The method of claim 2, wherein the eosinophilic inflammatory condition, disorder or disease is asthma.

5. The method of claim 2, wherein the eosinophilic inflammatory condition, disorder or disease is bronchial asthma.

6. A method for treating an eosinophilic respiratory condition, disorder, or disease in a human in need thereof, comprising: administering to the human an effective dose of a composition comprising salmonid oil or at least one biological active isolated from salmonid oil to treat the inflammatory condition, disorder, or disease, wherein the salmonid oil is obtained from mild enzymatic hydrolysis of off-cuts of salmonid fish.

7. The method of claim 6, wherein the eosinophilic respiratory condition, disorder or disease is a viral respiratory disease.

8. The method of claim 6, wherein the eosinophilic respiratory condition, disorder or disease is severe acute respiratory syndrome.

9. The method of claim 8, wherein the severe acute respiratory syndrome is caused by a coronavirus.

10. The method of any one of the preceding claims, wherein the human is largely resistant to medical and surgical interventions for treating the condition, disorder or disease.

11. The method of any one of the preceding claims, wherein the human exhibits or has resistance to steroid treatments.

12. The method of any one of the preceding claims, wherein the human has steroid treatment resistant asthma.

13. The method of any one of the preceding claims, wherein the effective dose of the composition comprising salmonid oil is between 4 g and 6 g per day.

14. The method of any one of the preceding claims, wherein the effective dose of the composition comprising at least one biological active isolated from salmonid oil is between 10 mg and 1000 mg per day.

15. The method of any one of the preceding claims, wherein the administration of the composition to the human reduces or delays the need to provide the human with assisted respiration.

16. The method of any one of the preceding claims, wherein the mild enzymatic hydrolysis uses enzymes with less than 1% lipase activity.

17. The method of any one of the preceding claims, wherein the salmonid oil comprises less than 0.5% free fatty acid.

18. The method of any one of the preceding claims, wherein the salmonid oil comprises microcolin.

19. The method of claim 18, wherein the salmonid oil comprises microcolin A.

20. The method of claim 18 or 19, wherein the salmonid oil further comprises:

(i) caproic acid, caprylic acid, capric acid, lauric acid, behenic acid, lignoceric acid, myrstoleic acid, heptadecenoic acid, elaidic acid, gadoleic acid, erucic acid, brassidic acid, nervonic acid, gamma linolenic acid, columbinic acid, stearidonic acid, mead acid, or dihomo gamma linolenic acid, or any combination thereof;

(ii) ligustilide, germacrene, thymol, eugenol, carvacrol, linalool, citronellol, terpineol, bisbalol, santalol, thujone, pinacamphone, italidone, linalyl acetate, geranyl acetate, citronellyl formate, helenalin, elecampane, furocoumarin, chavicol, sitosterol, stigmasterol, or 3-butyliden-4,5-dihydrophthalide, or any combination thereof;

(iii) iturin A, hoiamides, heronamides, laxaphycin, apramides, dragonamides, gageotetrins, lyngbyabellins, cyclodycidins, parguerine, pumilacidin, sulforeido lipopeptides, fengycins, mebamamides, microcolins, penicimutamides, sulfoglycolipids, halovir, kahalalide, or tuftsin, or any combination of the foregoing;

(iv) protectin; or

(v) lipoxin,

or any combination of (i)-(v).

21. The method of any one of the preceding claims, wherein the composition is administered orally, inhaled, injected, or administered topically.

22. The method of any one of the preceding claims, wherein the composition is administered as a syrup, chewable, capsule, or soft gel.

23. An article of manufacture, comprising:

a container comprising a composition comprising salmonid oil or at least one biological active isolated from salmonid oil, wherein the salmonid oil is obtained from mild enzymatic hydrolysis of off-cuts of salmonid fish; and

a label containing instructions for use directed to treatment of an eosinophilic inflammatory condition, disorder, or disease in a human in need thereof.

24. The article of manufacture of claim 23, wherein the composition is provided in a dosage form.

25. The article of manufacture of claim 24, wherein the dosage form is a syrup, chewable, capsule, or soft gel.

26. A kit, comprising:

a dosage form of a composition comprising salmonid oil or at least one biological active isolated from salmonid oil, wherein the salmonid oil is obtained from mild enzymatic hydrolysis of off-cuts of salmonid fish; and

a package insert containing instructions for use directed to treatment of an eosinophilic inflammatory condition, disorder, or disease in a human in need thereof.

27. The kit of claim 26, wherein the dosage form is a syrup, chewable, capsule or soft gel.