What is claimed is:

1. A formulation comprising isolated Disialyllacto-N-tetraose (DSLNT) or variants, isomers, analogs and derivatives thereof.

2. The formulation of claim 1, wherein the isolated DSLNT or variants, isomers, analogs and derivatives thereof is an amount sufficient to inhibit a bowel disease.

3. The formulation of claim 2, wherein the amount sufficient to inhibit a bowel disease is at least 30 μM at least 300 μM, or in the range of about 600-1500 μM or about 500-800 μM.

4. The formulation of claim 1, wherein the formulation is an enteral formulation.

5. The formulation of claim 1, wherein the formulation is added to infant formula, breast milk or baby food.

6. The formulation of claim1 which is a liquid, a gel, or a solid

7. A method of preventing or treating a subject having a bowel disease and/or inflammation by administering to the subject an isolated Disialyllacto-N-tetraose (DSLNT) or variants, isomers, analogs and derivatives thereof in an amount sufficient to prevent or treat the bowel disease and/or inflammation in the subject.

8. The method of claim 7, wherein the subject is a mammal.

9. The method of claim 8, wherein the mammal is an infant.

10. The method of claim 7, wherein isolated Disialyllacto-N-tetraose (DSLNT) is administered by means of an infant formula, fortified breast milk, baby food or nutritional supplement.

11. The method of claim 8, wherein the mammal is a human, monkey, rat, mouse, dog, cat, pig, goat, sheep, horse or cow.

12. The method of claim 7, wherein isolated Disialyllacto-N-tetraose (DSLNT) is administered by means of animal feed, animal feed supplement, or animal nutritional supplement.

13. The method of claim 7, wherein the subject is suffering from diarrhea, enteritis, colitis, cramping, abdominal pain, edema, ulcer, gastritis, intestinal disease, digestive disease or inflammatory bowel disease.

13. The method of claim 7, wherein the bowel disease is an infectious disease.

14. The method of claim 7, wherein the bowel disease is Necrotizing Enterocolitis (NEC).

15. A method of identifying whether a breast-fed infant is at risk of developing Necrotizing Enterocolitis (NEC) comprising measuring the concentration of Disialyllacto-N-tetraose (DSLNT) in the mother's milk, a low level of DSLNT being indicative that the breast-fed infant is at risk of developing NEC.

16. The formulation of claim 1, wherein the formulation is a tablet or a caplet.

17. The formulation of claim 16, wherein the tablet or caplet is a multi-layered.

18. The formulation of claim 16, wherein the tablet or caplet is a matrix tablet or caplet.

19. The formulation of claim 1, wherein the formulation is a multiparticulate formulation.

20. The formulation of claim 19, wherein the multiparticulates are encapsulated.

21. The formulation of claim 19, wherein the multiparticulates are pressed into a tablet.

22. The formulation of claim 1, wherein the formulation is a pharmaceutical formulation.

23. The formulation of claim 1, wherein the formulation is administered with a probiotic.

24. The formulation of claim 23, wherein the probiotic comprises bacterial species from the genera *Bifidobacteria* and/or *Lactobacilli*.

25. A formulation comprising isolated DSLNT or variants, isomers, analogs and derivatives thereof and a pharmaceutical acceptable carrier.

26. A formulation consisting of isolated DSLNT or variants, isomers, analogs and derivatives thereof and a pharmaceutical acceptable carrier.

27. The formulation of claim 1 or 25 which is substantially free of non-DSLNT oligosaccharides.

CLAIMS

1. A formulation comprising isolated Disialyllacto-N-tetraose (DSLNT) or variants, isomers, analogs and derivatives thereof.

2. The formulation of claim 1, wherein the isolated DSLNT or variants, isomers, analogs and derivatives thereof is an amount sufficient to inhibit a bowel disease, wherein preferably the amount sufficient to inhibit a bowel disease is at least 30 μM at least 300 μM, or in the range of about 600-1500 μM or about 500-800 μM.

3. The formulation of claim 1, wherein the formulation is an enteral formulation.

4. The formulation of claim 1, wherein the formulation is added to infant formula, breast milk or baby food.

5. An isolated Disialyllacto-N-tetraose (DSLNT) or variants, isomers, analogs and derivatives thereof for use in preventing or treating a subject having a bowel disease and/or inflammation by administering to the subject the isolated Disialyllacto-N-tetraose (DSLNT) or variants, isomers, analogs and derivatives thereof in an amount sufficient to prevent or treat the bowel disease and/or inflammation in the subject.

6. The isolated Disialyllacto-N-tetraose (DSLNT) or variants, isomers, analogs and derivatives thereof for use according to claim 5, wherein the subject is a mammal, wherein the mammal preferably is a human, monkey, rat, mouse, dog, cat, pig, goat, sheep, horse or cow and/or wherein preferably the mammal is an infant.

7. The isolated Disialyllacto-N-tetraose (DSLNT) or variants, isomers, analogs and derivatives thereof for use according to claim 5, wherein isolated Disialyllacto-N-tetraose (DSLNT) is administered by means of an infant formula, fortified breast milk, baby food or nutritional supplement, or wherein isolated Disialyllacto-N-tetraose (DSLNT) is administered by means of animal feed, animal feed supplement, or animal nutritional

supplement.

8. The isolated Disialyllacto-N-tetraose (DSLNT) or variants, isomers, analogs and derivatives thereof for use according to claim 5, wherein the subject is suffering from diarrhea, enteritis, colitis, cramping, abdominal pain, edema, ulcer, gastritis, intestinal disease, digestive disease or inflammatory bowel disease, wherein preferably the bowel disease is an infectious disease, or wherein preferably the bowel disease is Necrotizing Enterocolitis (NEC).

9. A method of identifying whether a breast-fed infant is at risk of developing Necrotizing Enterocolitis (NEC) comprising measuring the concentration of Disialyllacto-N-tetraose (DSLNT) in the mother's milk, a low level of DSLNT being indicative that the breast-fed infant is at risk of developing NEC.

10. The formulation of claim 1, wherein the formulation is a tablet or a caplet, wherein preferably the tablet or caplet is a multi-layered or wherein preferably the tablet or caplet is a matrix tablet or caplet.

11. The formulation of claim 1, wherein the formulation is a multiparticulate formulation, wherein preferably the multiparticulates are encapsulated and/or wherein preferably the multiparticulates are pressed into a tablet.

12. The formulation of claim 1, wherein the formulation is a pharmaceutical formulation.

13. The formulation of claim 1, wherein the formulation is administered with a probiotic, wherein preferably the probiotic comprises bacterial species from the genera *Bifidobacteria* and/or *Lactobacilli.*

14. A formulation comprising, preferably consisting of, isolated DSLNT or variants, isomers, analogs and derivatives thereof and a pharmaceutical acceptable carrier.

15. The formulation of claim 1 or 14 which is substantially free of non-DSLNT oligosaccharides.