CLAIMS

What is claimed is:

1. A method for enhancing brain development in a pediatric subject, the method comprising administering to the pediatric subject a nutritional composition comprising:

a. up to 7 g/100 kcal of a fat or lipid source, wherein the fat or lipid source comprises at least 0.5 mg/100 kcal polar lipids, wherein the polar lipids comprise gangliosides and phospholipids, and further wherein the gangliosides are present at a level of 0.5 mg/100 kcal to 18 mg/100 kcal, and the phospholipids are present at a level of 20 mg/100 kcal to 250 mg/100 kcal;

b. up to 5 g/100 kcal of a protein source;

c. at least 15 mg/100 kcal of lactoferrin from a non-human source;

d. a prebiotic composition, wherein at least 20% of the prebiotic composition comprises polydextrose, galactooligosaccharide or a combination thereof; and

e. at least 5 mg/100 kcal of a source of long chain polyunsaturated fatty acids comprising docosahexaenoic acid.

2. The method of claim 1, wherein the polar lipids are present at a level of 0.5 mg/100 kcal to 470 mg/100 kcal.

3. The method of claim 2, wherein the polar lipids are present at a level of 10 mg/100 kcal to 350 mg/ 100 kcal.

4. The method of claim 3, wherein the polar lipids are present at a level of 20 mg/100 kcal to 260 mg/ 100 kcal.

5. The method of claim 1, wherein lactoferrin is present at a level of 10 mg/100 kcal to 200 mg/100 kcal.

6. The method of claim 5, wherein the lactoferrin is bovine lactoferrin.

7. The method of claim 1, wherein the source of long chain polyunsaturated fatty acids is present more preferably from 5 mg/100 kcal to 75 mg/100 kcal.

8. The method of claim 1, wherein the nutritional composition is an infant formula or a growing up milk.

9. A nutritional composition for enhancing brain development in a pediatric subject, comprising:

a. up to 7 g/100 kcal of a fat or lipid source, wherein the fat or lipid source comprises at least 0.5 mg/100 kcal polar lipids, wherein the polar lipids comprise gangliosides and phospholipids, and further wherein the gangliosides are present at a level of 0.5 mg/100 kcal to 18 mg/100 kcal, and the phospholipids are present at a level of 20 mg/100 kcal to 250 mg/100 kcal;

b. up to 5 g/100 kcal of a protein source;

c. at least 15 mg/100 kcal of lactoferrin from a non-human source;

d. a prebiotic composition, wherein at least 20% of the prebiotic composition comprises polydextrose, galactooligosaccharide or a combination thereof; and

e. at least 5 mg/100 kcal of a source of long chain polyunsaturated fatty acids comprising docosahexaenoic acid.

10. The composition of claim 9, wherein the polar lipids are present at a level of 0.5 mg/100 kcal to 470 mg/100 kcal.

11. The composition of claim 10, wherein the polar lipids are present at a level of 10 mg/100 kcal to 350 mg/ 100 kcal.

12. The composition of claim 11, wherein the polar lipids are present at a level of 20 mg/100 kcal to 260 mg/ 100 kcal.

13. The composition of claim 9, wherein lactoferrin is present at a level of 15 mg/100 kcal to 300 mg/100 kcal.

14. The composition of claim 13, wherein the lactoferrin is bovine lactoferrin.

15. The composition of claim 9, wherein the source of long chain polyunsaturated fatty acids is present more preferably from 5 mg/100 kcal to 75 mg/100 kcal.

16. The composition of claim 9, wherein the nutritional composition is an infant formula or a growing up milk.

17. The method of claim 1, wherein the prebiotic composition is present in the nutritional composition from 1.0 g/L to 10.0 g/L.

18. The composition of claim 9, wherein the prebiotic composition is present from 1.0 g/L to 10.0 g/L.