CLAIMS

What is claimed is:

~~1. A nutritional composition comprising:~~

~~(i) a carbohydrate source;~~

~~(ii) a fat source; and~~

~~(iii) a protein equivalent source,~~

~~wherein~~

~~a) 20% to 80% of the protein equivalent source includes a peptide component comprising SEQ ID NO 4, SEQ ID NO 13, SEQ ID NO 17, SEQ ID NO 21, SEQ ID NO 24, SEQ ID NO 30, SEQ ID NO 31, SEQ ID NO 32, SEQ ID NO 51, SEQ ID NO 57, SEQ ID NO 60, and SEQ ID NO 63; and~~

~~b) 20% to 80% of the protein equivalent source comprises an intact protein, a partially hydrolyzed protein, or combinations thereof.~~

~~2. The nutritional composition of claim 1, wherein the peptide component is present in an amount from about 0.2 g/100 kcals to about 5.6 g/100 kcals.~~

~~3. The nutritional composition of claim 1, wherein the peptide component further comprises at least 10 additional peptides selected from Table 1.~~

~~4. The nutritional composition of claim 1, wherein the protein equivalent source comprises partially hydrolyzed protein having a degree of hydrolysis of less than 40%.~~

~~5. The nutritional composition of claim 1, further comprising at least one long-chain polyunsaturated fatty acid.~~

~~6. The nutritional composition of claim 5, wherein the at least one long-chain polyunsaturated fatty acid is selected from the group consisting of docosahexaenoic acid and arachidonic acid.~~

~~7. The nutritional composition of claim 1, further comprising a culture supernatant from a late-exponential growth phase of a probiotic batch-cultivation process, for use in the treatment or prevention of infection by a pathogen.~~

~~8. The nutritional composition of claim 1, further comprising a probiotic.~~

~~9. The nutritional composition of claim 1, further comprising a prebiotic.~~

~~10. The nutritional composition of claim 1, wherein when administered to a subject, the nutritional composition reduces the incidence of autoimmune disease.~~

~~11.~~ A nutritional composition, comprising:

(i) a carbohydrate source;

(ii) a fat source; and

(iii) a protein equivalent source;

wherein

a) 20% to 80% of the protein equivalent source includes a peptide component comprising at least 5 peptides selected from SEQ ID NO 1; SEQ ID NO 2; SEQ ID NO 3; SEQ ID NO 5; SEQ ID NO 6; SEQ ID NO 7; SEQ ID NO 8; SEQ ID NO 9; SEQ ID NO 10; SEQ ID NO 11; SEQ ID NO 12; SEQ ID NO 14; SEQ ID NO 15; SEQ ID NO 16; SEQ ID NO 18; SEQ ID NO 19; SEQ ID NO 20; SEQ ID NO 22; SEQ ID NO 23; SEQ ID NO 25; SEQ ID NO 26; SEQ ID NO 27; SEQ ID NO 28; SEQ ID NO 29; SEQ ID NO 33; SEQ ID NO 34; SEQ ID NO 35; SEQ ID NO 36; SEQ ID NO 37; SEQ ID NO 38; SEQ ID NO 39; SEQ ID NO 40; SEQ ID NO 41; SEQ ID NO 42; SEQ ID NO 43; SEQ ID NO 44; SEQ ID NO 45; SEQ ID NO 46; SEQ ID NO 47; SEQ ID NO 48; SEQ ID NO 49; SEQ ID NO 50; SEQ ID NO 52; SEQ ID NO 53; SEQ ID NO 54; SEQ ID NO 55; SEQ ID NO 56; SEQ ID NO 58; SEQ ID NO 59; SEQ ID NO 61; SEQ ID NO 62; SEQ ID NO 64; ~~Table 1~~ and at least 3 additional peptides selected from SEQ ID NO 4; ~~SEQ~~ SEQ ID NO 13; SEQ ID NO 17; SEQ ID NO 21; SEQ ID NO 24; SEQ ID NO 30; SEQ ID NO 31; SEQ ID NO 32; SEQ ID NO 51; SEQ ID NO 57; SEQ ID NO 60; SEQ ID NO 63 ~~Table 2~~; and

b) 20% to 80% of the protein equivalent source comprises an intact protein, a partially hydrolyzed protein, or combinations thereof.

~~42~~. The nutritional composition of claim ~~41~~, comprising at least 10 additional peptides selected from SEQ ID NO 1; SEQ ID NO 2; SEQ ID NO 3; SEQ ID NO 5; SEQ ID NO 6; SEQ ID NO 7; SEQ ID NO 8; SEQ ID NO 9; SEQ ID NO 10; SEQ ID NO 11; SEQ ID NO 12; SEQ ID NO 14; SEQ ID NO 15; SEQ ID NO 16; SEQ ID NO 18; SEQ ID NO 19; SEQ ID NO 20; SEQ ID NO 22; SEQ ID NO 23; SEQ ID NO 25; SEQ ID NO 26; SEQ ID NO 27; SEQ ID NO 28; SEQ ID NO 29; SEQ ID NO 33; SEQ ID NO 34; SEQ ID NO 35; SEQ ID NO 36; SEQ ID NO 37; SEQ ID NO 38; SEQ ID NO 39; SEQ ID NO 40; SEQ ID NO 41; SEQ ID NO 42; SEQ ID NO 43; SEQ ID NO 44; SEQ ID NO 45; SEQ ID NO 46; SEQ ID NO 47; SEQ ID NO 48; SEQ ID NO 49; SEQ ID NO 50; SEQ ID NO 52; SEQ ID NO 53; SEQ ID NO 54; SEQ ID NO 55; SEQ ID NO 56; SEQ ID NO 58; SEQ ID NO 59; SEQ ID NO 61; SEQ ID NO 62; SEQ ID NO 64~~Table 1~~.

~~43~~. The nutritional composition of claim ~~41~~, wherein the protein equivalent source comprises casein hydrolysate having a molar mass distribution of greater than 500 Daltons.

~~44~~. The nutritional composition of claim ~~41~~, wherein the protein equivalent source comprises partially hydrolyzed protein having a degree of hydrolysis of less than 40%.

~~45~~. The nutritional composition of claim ~~41~~, further comprising a prebiotic.

~~46~~. The nutritional composition of claim ~~41~~, further comprising a culture supernatant from a late-exponential growth phase of a probiotic batch-cultivation process, for use in the treatment or prevention of infection by a pathogen.

~~17.~~ Use of a nutritional composition comprising:

a carbohydrate source,

a fat source, and

a protein equivalent source,

wherein 20% to 80% of the protein equivalent source includes a peptide component comprising SEQ ID NO 4, SEQ ID NO 13, SEQ ID NO 17, SEQ ID NO 21, SEQ ID NO 24, SEQ ID NO 30, SEQ ID NO 31, SEQ ID NO 32, SEQ ID NO 51, SEQ ID NO 57, SEQ ID NO 60, and SEQ ID NO 63; and wherein 20% to 80% of the protein equivalent source comprises intact protein, partially hydrolyzed protein or combinations thereof, in the manufacture of a medicament for reducing the incidence of autoimmune disease.

~~18.~~ The use of claim ~~17~~, wherein the peptide component further comprises at least 10 additional peptides selected from SEQ ID NO 1; SEQ ID NO 2; SEQ ID NO 3; SEQ ID NO 5; SEQ ID NO 6; SEQ ID NO 7; SEQ ID NO 8; SEQ ID NO 9; SEQ ID NO 10; SEQ ID NO 11; SEQ ID NO 12; SEQ ID NO 14; SEQ ID NO 15; SEQ ID NO 16; SEQ ID NO 18; SEQ ID NO 19; SEQ ID NO 20; SEQ ID NO 22; SEQ ID NO 23; SEQ ID NO 25; SEQ ID NO 26; SEQ ID NO 27; SEQ ID NO 28; SEQ ID NO 29; SEQ ID NO 33; SEQ ID NO 34; SEQ ID NO 35; SEQ ID NO 36; SEQ ID NO 37; SEQ ID NO 38; SEQ ID NO 39; SEQ ID NO 40; SEQ ID NO 41; SEQ ID NO 42; SEQ ID NO 43; SEQ ID NO 44; SEQ ID NO 45; SEQ ID NO 46; SEQ ID NO 47; SEQ ID NO 48; SEQ ID NO 49; SEQ ID NO 50; SEQ ID NO 52; SEQ ID NO 53; SEQ ID NO 54; SEQ ID NO 55; SEQ ID NO 56; SEQ ID NO 58; SEQ ID NO 59; SEQ ID NO 61; SEQ ID NO 62; SEQ ID NO 64 ~~Table 1~~.

~~19.~~ The use of claim ~~17~~, wherein the protein equivalent source comprises a partially hydrolyzed protein having a degree of hydrolysis of less than 40%.

~~20~~10. The use of claim ~~17~~, wherein the nutritional composition reduces the incidence of autoimmune disease.

11. The use of claim 7, wherein the nutritional composition comprises at least one long chain polyunsaturated fatty acids selected from the group consisting of docosahexaenoic acid and arachidonic acid.

12. The use of claim 7, wherein the nutritional composition further comprises a prebiotic.

13. The use of claim 7, wherein the nutritional composition further comprises a probiotic.

14. The use of claim 7, wherein the nutritional composition further comprise a culture supernatant from a late-exponential phase of a probiotic batch cultivation process.