CLAIMS

1. A spray-dried powder contains at least 80%-wt 3-fucosyllactose which has been produced by microbial fermentation using a genetically engineered microorganism, wherein the spray-dried powder has a mean particle size of 119.2 ± 0.5µm, determined by lase diffraction, contains ≤ 15%-wt. of water, and is free of nucleic acid molecules from the genetically engineered microorganism.

2. The spray-dried powder according to claim 1, wherein the 3-fucosyllac-tose is present in amorphous form.

3. The spray-dried powder according to any one of claims 1 to 2, wherein the spray-dried powder contains 5 15 %-wt. of water, preferably 5 10 %-wt. of water, more preferably 5 7 %-wt. of water, most preferably 5 5 %-wt. of water.

4. The spray-dried powder according to any one of claims 1 to 3, wherein the spray-dried powder is free of genetically-engineered microorganisms and nucleic acid molecules derived from genetically-engineered microorganisms.

5. A process for the manufacture of a spray-dried powder as defined in any one of claims 1 to 4, the process comprises the steps of:
   a) purifying the 3-fucosyllactose from a fermentation broth;
   b) providing an aqueous solution containing the 3-fucosyllactose in an amount of at least 20%-wt of step a); and
   c) subjecting the solution of step b) to spray-drying at a nozzle temperature of at least 110ºC and less than 150ºC and at an outlet temperature of at least 60ºC and less than 80ºC.

6. The process according to claim 5, wherein the step of purifying the 3-fucosyllactose from a fermentation broth (step a)) includes one or more of the steps of

i) removing the microbial cells from the fermentation broth to obtain a cleared process stream;

ii) subjecting the cleared process stream to at least one ultrafiltration;

iii) treating the cleared process stream at least one time with a cation exchange resin and/or at least one time with an anion exchange resin;

iv) subjecting the cleared process stream to at least one nanofiltration and/or diafiltration;

v) subjecting the cleared process stream to at least one electrodialysis;

vi) treating the cleared process stream at least one time with activated charcoal; and/or

vii) subjecting the cleared process stream at least one time to a crystallization and/or precipitation step.

7. The process according to claim 5 or 6, wherein the aqueous solution contains the 3-fucosyllactose in an amount of at least 30 % (w/v), 35 (w/v), and up to 45 % (w/v), 50 % (w/v), 60 % (w/v).

8. Use of the spray-dried powder according to any one of claims 1 to 4 for the manufacture of a nutritional composition, preferably an infant formula.

9. A nutritional composition containing the spray-dried powder according to any one of claims 1 to 4.

10. The nutritional composition according to claim 8, further containing at least one additional HMO, wherein said at least one additional HMO is a neutral HMO or a sialylated HMO.

11. The nutritional composition according to claim 8 or 10, wherein the at least one neutral HMO is selected from the group consisting of 2'-fucosyllactose, lacto-N-tetraose, lacto-N-neotetraose and lacto-N-fucopentaose I.

12. The nutritional composition according to any one of claims 9 to 11, wherein the at least one sialylated HMO is selected from the group consisting of 3'-sialyllactose, 6'-sialyllactose, sialyllacto-N-tetraose (LST)-a, LST-b, LST-c and disialyllacto-N-tetraose.

13. The nutritional composition according to any one of claims 9 to 12, wherein the nutritional composition contains at least one probiotic microorganism.