CLAIMS

1. A method for enhancing the activity of probiotic bacteria having a pdu-operon, in the gastrointestinal tract of an individual, comprising administering a substance to said individual, which substance has the capacity to be metabolized to 1,2-propanediol in the gastrointestinal tract of said individual.

2. The method of claim 1, wherein said substance comprises (a) rhamnose, (b) fucose, (c) pectin having a high percentage of rhamnose, (d) rhamnose in combination with pectin, (e) fucose in combination with pectin, (f) fucoidan having a high percentage of fucose, or (g) a combination of rhamnose, fucose and pectin.

3. The method of claim 1 or 2, wherein the substance is administered simultaneously with bacteria having a pdu operon.

4. The method of any preceding claim, wherein the bacteria having the pdu-operon comprise *Lactobacilllus reuteri*.

5. The method of any preceding claim, wherein the substance is administered to the individual at a daily dose of 0.25-25 g, preferably 1-2 g.

6. The method of any preceding claim, further comprising simultaneously administering a galactooligosaccharide or other saccharides comprising galactose.

7. A substance for use in enhancing the activity or increasing the growth of probiotic bacteria having a pdu-operon, in the gastrointestinal tract of an individual, which substance comprises a deoxy sugar that has the capacity to be metabolized to 1,2-propanediol in the gastrointestinal tract of said individual.

8. The substance of claim 7 comprising (a) rhamnose, (b) fucose, (c) pectin having a high percentage of rhamnose, (d) rhamnose in combination with pectin, (e) fucose in combination with pectin, (f) fucoidan having a high percentage of fucose, or (g) a combination of rhamnose, fucose and pectin.

9. The substance of any one of claims 7-8 wherein the bacteria having the pdu-operon are *Lactobacilllus reuteri*.

10. The substance of any one of claims 7-9, which is administered to the individual at a daily dose of 0.25-25 g, preferably 1-2 g.

11. The substance of any one of claims 7-10, which is for use in combination with galactooligosaccharides or other saccharides comprising galactose.

12. A composition comprising bacteria having a pdu-operon and a substance comprising a deoxy sugar, which deoxy sugar has the capacity to be metabolized to 1,2-propanediol in the gastrointestinal tract of an individual.

13. The composition of claim 12, which comprises bacteria having a pdu-operon, in combination with (a) rhamnose, (b) fucose, (c) pectin having a high percentage of rhamnose, (d) rhamnose in combination with pectin, (e) fucose in combination with pectin, (f) fucoidan having a high percentage of fucose, or (g) a combination of rhamnose, fucose and pectin.

14. The composition of claim 12 or 13, further comprising galactooligosaccharides or other saccharides comprising galactose.

15. The composition of any one of claims 12-14 wherein the bacteria having the pdu-operon are *Lactobacilllus reuteri*.

16. The composition of any one of claims 12-15 wherein the substance is present in an amount such as to give a daily dose of 0.25-25 g, preferably 1-2 g.

17. The composition of any one of claims 12-16 for use in enhancing the activity or increasing the growth of probiotic bacteria having a pdu-operon, in the gastrointestinal tract of an individual.

CLAIMS

1. A method for enhancing the activity of probiotic bacteria having a pdu-operon, in the gastrointestinal tract of an individual, comprising administering a substance to said individual, which substance has the capacity to be metabolized to 1,2-propanediol in the gastrointestinal tract of said individual,

wherein the substance is administered to the individual at a daily dose of 1-2 g and at the same time administer to the individual 10E+6 CFU to 10E+9 CFU of L. reuteri bacteria.

2. The method of claim 1, wherein the substance is administered to the individual at a daily dose of 0.25-25 g, preferably 1-2 g.

3. A composition comprising L reuteri bacteria having a pdu-operon and a substance comprising a deoxy sugar, which deoxy sugar has the capacity to be metabolized to 1,2-propanediol in the gastrointestinal tract of an individual, said bacteria having a pdu-operon, in combination with (a) rhamnose, (b) fucose, (c) pectin having a high percentage of rhamnose, (d) rhamnose in combination with pectin, (e) fucose in combination with pectin, (f) fucoidan having a high percentage of fucose, or (g) a combination of rhamnose, fucose and pectin; and further comprising galactooligosaccharides or other saccharides comprising galactose;

wherein the substance is present in an amount such as to give a daily dose of 0.25-25 g, preferably 1-2 g. and 10E+6 CFU to 10E+9 CFU of L. reuteri bacteria