Claims

1. Use of a strain of *Faecalibacterium prausnitzii* and a strain of *Desulfovibrio piger* wherein said strain of *Desulfovibrio piger* has one or more of the characteristics of: (i) being acetate producing, (ii) being lactate consuming and (iii) having the ability to be an electron acceptor, for preparation of a medicament for the treatment or prevention of a disease associated with reduced butyrate levels or a disease associated with reduced or low numbers of *Faecalibacterium prausnitzii* bacteria, wherein the strain of *Faecalibacterium prausnitzii* is DSM 32186 or DSM 17677 and/or the strain of *Desulfovibrio piger* is DSM 32187.

2. The use of claim 1, wherein said strains are administered together in combination, or sequentially, or separately.

3. The use of claim 1 or claim 2, wherein said *Desulfovibrio piger* strain has all of the characteristics (i) to (iii).

4. The use of any one of claims 1 to 3, wherein said strain of *Faecalibacterium prausnitzii* has (i) the ability to produce butyrate, and optionally one or more of: (ii) the ability to consume acetate, (iii) the ability to produce extracellular electrons and (iv) the ability to produce lactate.

5. The use of *Faecalibacterium prausnitzii* in claim 4, wherein said strain of *Faecalibacterium prausnitzii* has all of the characteristics (i) to (iv) and/or said strain of *Desulfovibrio piger* has all of the characteristics (i) to (iii).

6. The use of any one of claims 1 to 5, wherein said strain of *Faecalibacterium prausnitzii* contains a L-lactate dehydrogenase gene.

7. The use of any one of claims 1 to 6, wherein butyrate production is increased when both strains are present compared to the butyrate production by the *Faecalibacterium prausnitzii* strain alone.

8. The use of claim 7, wherein the effect on the increase in butyrate production is a synergistic effect between the strain of Faecalibacterium prausnitzii and the strain of Desulfovibrio piger.

~~9. The use of any one of claims 1 to 8, wherein the strain of *Faecalibacterium prausnitzii* is DSM 32186 or DSM 17677 and/or the strain of *Desulfovibrio piger* is DSM 32187.~~

~~10~~9.The use of any one of claims 1 to ~~9~~ 8, wherein said use results in the increased growth and colonization of *Faecalibacterium prausnitzii* bacteria in the gastrointestinal tract.

~~11~~10. The use of any one of claims 1 to ~~10~~ 9, wherein ~~said~~ reduced butyrate levels or reduced or low numbers of *Faecalibacterium prausnitzii* bacteria are associated with a disease ~~is~~ selected from the group consisting of dysbiosis, type 2 diabetes, gestational diabetes, obesity, gout, pouchitis, chronic kidney disease, psoriasis, frailty, inflammatory bowel disease, irritable bowel syndrome, abdominal pain associated with irritable bowel syndrome, constipation, and diseases associated with constipation.

~~12~~11. The use of any one of claims~~ 11~~ 1 to 9 in a probiotic product, wherein said reduced butyrate levels or reduced or low numbers of *Faecalibacterium prausnitzii* bacteria are associated with a a therapeutioc condition related to ~~disease is~~ type 2 diabetes or gestational diabetes.

~~13~~12. Use of a composition comprising a *Faecalibacterium prausnitzii* strain and a strain of *Desulfovibrio piger* for the preparation of a medicament for the treatment or prevention of ~~a disease associated with reduced butyratelevels or~~ a disease associated with reduced butyrate levels or a disease associated with reduced or low numbers of *Faecalibacterium prausnitzii* bacteria,wherein said strain of *Faecalibacterium prausnitzii* has one or more of the characteristics of: (i) being a butyrate producer, (ii) being acetate consuming, (iii) having the ability to produce extracellular electrons, and Iib) having the ability to produce lactate; and wherein said strain of *Desulfovibrio piger* has one or more of the characteristics of: (i) being acetate producing, (ii) being lactate consuming and (iii) having the ability to be an electron acceptor, and wherein the strain of *Faecalibacterium prausnitzii* is DSM 32186 or DSM 17677 and/or the strain of *Desulfovibrio piger* is DSM 32187.

~~14~~13. The composition of claim ~~13~~ 12, wherein said strains are as defined in any one of claims 3 to ~~9~~ 8.

~~15~~14. Use of a composition of a strain of *Desulfovibrio piger* DSM 32187 for the preparation of a composition to improve ~~gut health~~ intestinal microflora balance, wherein said improvement of the intestinal microflora balance is associated with an improvement of butyrate production.

~~16~~15. Use of a composition of a strain of *Desulfovibrio piger DSM 32187* ~~for the preparation of a composition to improve gut health~~ according to claim 14, wherein said strain is capable of increasing butyrate levels and/or increases the number of *Faecalibacterium prausnitzii* bacteria in the gut, wherein said increase in butyrate levels and/or number of *Faecalibacterium prausnitzii* bacteria is the result of a synergistic effect between said *Desulfovibrio piger* DSM 32187 strain and *Faecalibacterium prausnitzii*.