

CLAIMS

1. A bacterial strain belonging to the species *Bifidobacterium bifidum* identified as *Bifidobacterium bifidum* MIMBb23sg = BbflBS01, wherein said bacterial strain was deposited at Deutsche Sammlung von Mikroorganismen und Zellkulturen GmbH (DSMZ) under deposit number DSM 32708 on 4 December 2017 by Sofar S.p.A.
2. The bacterial strain according to claim 1 for use as a medicament.
3. The bacterial strain according to claim 1 or 2 for use in a method for the preventive or curative treatment of gastrointestinal diseases, disorders or symptoms, preferably functional gastrointestinal disorders or inflammatory gastrointestinal disorders.
4. The bacterial strain for use according to claim 3, wherein said strain is for use in a method for preventive and/or curative treatment of functional gastrointestinal disorders selected from: irritable bowel syndrome (IBS), dyspepsia, pyrosis, oesophagus, stomach and duodenum disorders, small intestinal bacterial overgrowth (SIBO), disorders with sub-inflammatory conditions, preferably wherein said sub-inflammatory disorders are manifested in an elderly subject or celiac subject, or in a person suffering from diverticular disease.
5. The bacterial strain for use according to claim 3, wherein said strain is for use in a method for preventive and/or curative treatment of inflammatory gastrointestinal disorders or symptoms selected from: Crohn's disease, ulcerative colitis, microscopic colitis, *Helicobacter pylori*, peptic or gastric ulcer, duodenal ulcer, celiac disease, diverticular disease and diverticulitis.
6. A composition comprising:
a mixture comprising or, alternatively, consisting of the bacterial strain *Bifidobacterium bifidum* MIMBb23sg = BbflBS01 DSM 32708 according to claim 1,
and, optionally, said composition comprises at least one food grade or pharmaceutical additive and/or excipient.
7. The composition according to claim 6, wherein said mixture comprises the bacterial strain *B. bifidum* MIMBb23sg = BbflBS01 DSM 32708 at a concentration comprised in the range from 1×10^6 CFU to 1×10^{12} CFU, preferably from 1×10^7 CFU to 1×10^{11} CFU, more preferably from 1×10^8 CFU to 1×10^{10} CFU, with

respect to a daily intake.

8. The composition according to any one of claims 6 or 7 for use as a medicament.
9. The composition according to any one of claims 6 or 7 for use in a method for the preventive or curative treatment of gastrointestinal diseases, disorders or symptoms, preferably functional gastrointestinal disorders or inflammatory gastrointestinal disorders.
10. The composition for use according to claim 9, wherein said composition is for use in a method for preventive and/or curative treatment of functional gastrointestinal disorders selected from: irritable bowel syndrome (IBS), dyspepsia, pyrosis, oesophagus, stomach and duodenum disorders, small intestinal bacterial overgrowth (SIBO), disorders with sub-inflammatory conditions, in an elderly subject or in a celiac subject, or in the diverticular disease.
11. The composition for use according to claim 9, wherein said composition is for use in a method for the preventive and/or curative treatment of inflammatory gastrointestinal disorders or symptoms selected from: Crohn's disease, ulcerative colitis, microscopic colitis, *Helicobacter pylori*, peptic or gastric ulcer, duodenal ulcer, celiac disease, diverticular disease and diverticulitis.
12. The bacterial strain for use according to claim 2, or, alternatively, the composition for use according to claim 8, wherein said bacterial strain or said composition is for use in a method for the preventive and/or curative treatment of anxiety and/or depression or related symptoms.