CLAIMS

1. A method for selecting an agent for use in reducing or preventing gastrointestinal pain in a subject, said method comprising:

contacting a cell expressing TRPV1 with a *Lactobacillus reuteri* strain or a conditioned medium from said *Lactobacillus reuteri* strain to be tested;

measuring spontaneous and/or induced TRPVI activation in said cell following contacting said cell with said bacterial strain or said conditioned medium from said bacterial strain to be tested;

comparing said measured spontaneous and/or induced TRPVI activation with a control TRPV1 activation;

selecting, as said agent, said *Lactobacillus reuteri* strain or said conditioned medium from said *Lactobacillus reuteri* strain to be tested as a bacterial strain or a conditioned medium from said *Lactobacillus reuteri* strain effective in reducing or preventing gastrointestinal pain if said measured spontaneous and/or induced TRPV1 activation is lower than said control TRPV1 activation.

2. The method according to claim 1, wherein measuring said spontaneous and/or induced TRPV1 activation comprises measuring Ca^{2+} influx in said cell induced by capsaicin, pH change and/or heat.

3. A method for selecting an agent for use in reducing or preventing gastrointestinal pain in a subject, said method according to claim 1, further comprising:

contacting an *ex vivo* gastrointestinal segment with attached mesenteric tissue with a *Lactobacillus reuteri* strain or a conditioned medium from said *Lactobacillus reuteri* strain to be tested;

measuring spontaneous and/or induced mesenteric afferent firing in said *ex vivo* gastrointestinal segment following contacting said *ex vivo* gastrointestinal segment with said *Lactobacillus reuteri* strain or said conditioned medium from said *Lactobacillus reuteri*strain to be tested; and

comparing said spontaneous and/or induced measured mesenteric afferent firing with a control mesenteric afferent firing;

selecting said *Lactobacillus reuteri* strain or said conditioned medium from said *Lactobacillus reuteri* strain to be tested as a *Lactobacillus reuteri* strain or a conditioned

medium from said *Lactobacillus reuteri* strain effective in reducing or preventing gastrointestinal pain if said measured spontaneous and/or induced mesenteric afferent firing is lower than said control mesenteric afferent firing.

4. The method according to any of the claims 1 to 3, wherein said *Lactobacillus reuteri* strain is *Lactobacillus reuteri* DSM 17938.

5. The method according to any of the claims 1 to 4, wherein said subject is suffering from an intestinal motility disorder causing said gastrointestinal pain in said subject.

6. The method according to any of the claims 1 to 5, wherein said subject is suffering from a disease selected from a group consisting of colic, irritable bowel syndrome and constipation causing said gastrointestinal pain in said subject.