WE CLAIM

1. A method for providing a personalized solution for improving an intestinal environment based on a postbiotic-based health index, comprising:

receiving registration of a kit for collecting a sample from a user device;

calculating a postbiotic-based health index of at least one culture in which the sample is treated with at least one intestinal environment-improving candidate material; and

recommending at least one product for improving an intestinal environment, including the at least one intestinal environment-improving candidate material based on the postbiotic-based health index of the at least one culture,

wherein the postbiotic-based health index is based on a ratio of acetic acid (acetate) to propionic acid (propionate) and butyric acid (butyrate) comprising short chain fatty acids in the culture,

wherein the calculating a postbiotic-based health index includes:

calculating a first difference value representing the difference in acetate content between the sample treated with the intestinal environment-improving candidate material and a control group not treated with the intestinal environment-improving candidate material;

calculating a second difference value representing the difference in butyrate content between the sample treated with the intestinal environment-improving candidate material and the control group, or the difference in propionate content between the sample treated with the intestinal environment-improving candidate material and the control group; and

selecting the at least one intestinal environment-improving candidate material based on an angle formed between an X-axis and a coordinate point corresponding to the first difference value and the second difference values;

wherein the coordinate plane has the X-axis representing the acetate content difference and a Y-axis representing the butyrate or propionate content difference.

2. The method for providing a personalized solution for improving an intestinal environment of Claim 1,

wherein the calculating a postbiotic-based health index includes:

selecting a culture having a greatest difference between a postbiotic-based health index of a control group in which the sample is not treated with any intestinal environment-improving candidate material and the postbiotic-based health index of the at least one culture, and

the recommending at least one product for improving an intestinal environment includes:

recommending a product for improving an intestinal environment, including the intestinal environment-improving candidate material used for culturing the culture having the greatest difference.

3. The method for providing a personalized solution for improving an intestinal environment of Claim 1,

wherein the product for improving an intestinal environment includes at least one of probiotics, prebiotics, food, health functional food and drug.

4. A solution providing server for providing a personalized solution for improving an intestinal environment based on a postbiotic-based health index, comprising:

a kit registration unit that receives registration of a kit for collecting a sample from a user device;

a postbiotic-based health index calculation unit that calculates a postbiotic-based health index of at least one culture in which the sample is treated with at least one intestinal environment-improving candidate material; and

a product recommendation unit that recommends at least one product for improving an intestinal environment, including the at least one intestinal environment-improving candidate material based on the postbiotic-based health index of the at least one culture,

wherein the postbiotic-based health index is based on a ratio of acetic acid (acetate) to propionic acid (propionate) and butyric acid (butyrate) comprising short chain fatty acids in the culture,

wherein the postbiotic-based health index calculation unit calculates a first difference value representing the difference in acetate content between the sample treated with the intestinal environment-improving candidate material and a control group not treated with the intestinal environment-improving candidate material;

calculates a second difference value representing the difference in butyrate content between the sample treated with the intestinal environment-improving candidate material and the control group, or the difference in propionate content between the sample treated with the intestinal environment-improving candidate material and the control group; and

selects the at least one intestinal environment-improving candidate material based on an angle formed between an X-axis and a coordinate point corresponding to the first difference value and the second difference values;

wherein the coordinate plane has the X-axis representing the acetate content difference and a Y-axis representing the butyrate or propionate content difference.

5. The solution providing server of Claim 4,

wherein the postbiotic-based health index calculation unit selects a culture having a greatest difference between postbiotic-based health index of a control group in which the sample is not treated with any intestinal environment-improving candidate material and the postbiotic-based health index of the at least one culture, and

the product recommendation unit recommends a product for improving an intestinal environment, including the intestinal environment-improving candidate material used for culturing the culture having the greatest difference.

6. The solution providing server of Claim 4,

wherein the product for improving an intestinal environment includes at least one of probiotics, prebiotics, food, health functional food and drug.