USE OF *LACTOBACILLUS JOHNSONII* STRAIN OR A METABOLITE THEREOF FOR IMPROVING UROGENITAL HEALTH

CROSS-REFERENCE TO RELATED APPLICATION

[0001] This application claims priority of Taiwan patent application No. 108114789, filed on April 26, 2019, the content of which is incorporated herein in its entirety by reference.

BACKGROUND OF THE INVENTION

1. Field of the Invention

[0002] The present invention relates to a method for health care by using a probiotic bacterial strain. Particularly, the present invention relates to a method of improving urogenital health by using a novel *Lactobacillus johnsonii* strain.

2. The Prior Art

[0003] Previous studies have shown that the rectum, vagina, and bladder in females are in close proximity anatomically so that microorganisms in the gut can enter the genitourinary tract via bacterial adhesion. This process is considered natural that provides the vagina and outer urethra with the microflora required to maintain health condition. Under normal circumstances, various *Lactobacilli* such as *Lactobacillus crispatus* and *Lactobacillus jenesenii*, colonize the vagina and form the dominant populations, which exclude pathogens from the vagina, produce lactic acid and maintain a pH value of 3.8 to 4.5 in the vagina to inhibit the propagation of pathogens,

WHAT IS CLAIMED IS:

1. Use of a metabolite of *Lactobacillus johnsonii* strain or a combination of the *Lactobacillus johnsonii* strain and the metabolite in the manufacture of an oral or topical composition for improving urogenital health, wherein the *Lactobacillus johnsonii* strain is deposited under the accession number of DSM 33288, and wherein the metabolite is obtained by culturing the *Lactobacillus johnsonii* strain in a culture medium.
2. The use of claim 1, wherein the metabolite of *Lactobacillus johnsonii* strain or the combination of the *Lactobacillus johnsonii* strain and the metabolite inhibits growth of a bacterial or fungal pathogen causing a urinary tract infection.
3. The use of claim 2, wherein the bacterial or fungal pathogen causing the urinary tract infection is *Escherichia coli*.
4. The use of claim 1, wherein the metabolite of *Lactobacillus johnsonii* strain or the combination of the *Lactobacillus johnsonii* strain and the metabolite inhibits growth of a bacterial pathogen causing a bacterial vaginal infection.
5. The use of claim 4, wherein the bacterial pathogen causing the bacterial vaginal infection is *Gardnerella vaginalis*.
6. The use of claim 1, wherein the metabolite of *Lactobacillus johnsonii* strain or the combination of the *Lactobacillus johnsonii* strain and the metabolite inhibits growth of a fungal pathogen causing a fungal vaginal infection.
7. The use of claim 6, wherein the fungal pathogen causing the fungal vaginal infection is *Candida* spp.

8. The use of claim 1, wherein the metabolite of *Lactobacillus johnsonii* strain or the combination of the *Lactobacillus johnsonii* strain and the metabolite is to be administered orally.

9. A composition for improving urogenital health, comprising an effective amount of a metabolite of *Lactobacillus johnsonii* strain or a combination of the *Lactobacillus johnsonii* strain and the metabolite, and a pharmaceutically acceptable carrier, wherein the *Lactobacillus johnsonii* strain is deposited under the accession number of DSM 33288, and wherein the metabolite is obtained by culturing the *Lactobacillus johnsonii* strain in a culture medium.

10. The composition of claim 9, being in the form of a powder, a granule, a liquid, or a paste.