CLAIMS

1. A composition comprising a purified bacterial mixture consisting of bacterial strains *Phascolarctobacterium faecium, Fusobacterium ulcerans, Bacteroides dorei, Bacteroides uniformis, Subdoligranulum sp., Paraprevotella xylaniphila, Parabacteroides johnsonii, Alistipes sp., Parabacteroides gordonii, Eubacterium limosum,* and *Parabacteroides distasonis,* wherein the bacterial strains are lyophilized.

2. A pharmaceutical composition comprising a purified bacterial mixture consisting of bacterial strains comprising 16S rDNA sequences of at least 99% sequence identity with SEQ ID NO:1, SEQ ID NO:2, SEQ ID NO:3, SEQ ID NO:4, SEQ ID NO:5, SEQ ID NO:6, SEQ ID NO:7, SEQ ID NO:8, SEQ ID NO:9, SEQ ID NO:10, and SEQ ID NO:11, wherein the bacterial strains are lyophilized.

3. The composition of claim 1, wherein the composition is a pharmaceutical composition.

4. The composition of claims 2 or 3, wherein the pharmaceutical composition comprises a pharmaceutically acceptable excipient.

5. The composition of any one of claims 2 to 4, wherein the pharmaceutical composition is in the form of a capsule.

6. The composition of any one of claims 2 to 5, wherein the pharmaceutical composition further comprises a pH sensitive composition comprising one or more enteric polymers.

7. The composition of any one of the preceding claims, wherein the composition further comprises an immune checkpoint inhibitor, wherein the immune checkpoint inhibitor is a PD-1 inhibitor, PD-L1 inhibitor, or CTLA-4 inhibitor.

8. Use of the composition of any one of the preceding claims in the manufacture of a medicament for the treatment of cancer in a subject.

9. The use of claim 8, wherein the cancer is carcinoma, glioma, mesothelioma, melanoma, lymphoma, leukemia, adenocarcinoma, breast cancer, ovarian cancer, cervical cancer, glioblastoma, multiple myeloma, prostate cancer, Burkitt's lymphoma, head and neck cancer, colon cancer, colorectal cancer, non-small cell lung cancer, small cell lung cancer, cancer of the esophagus, stomach cancer, pancreatic cancer, hepatobiliary cancer, cancer of the gallbladder, cancer of the small intestine, rectal cancer, kidney cancer, bladder cancer, prostate cancer, penile cancer, urethral cancer, testicular cancer, vaginal cancer, uterine cancer, thyroid cancer, parathyroid cancer, adrenal cancer, pancreatic endocrine cancer, carcinoid cancer, bone cancer, skin cancer, retinoblastomas, Hodgkin's lymphoma, non-Hodgkin's lymphoma, Kaposi's sarcoma, multicentric Castleman's disease, AIDS-associated primary effusion lymphoma, neuroectodermal tumors, or rhabdomyosarcoma.

10. The use of claim 9, wherein the cancer is melanoma, head and neck cancer, stomach cancer, esophageal cancer, non-small cell lung cancer or colorectal cancer.

11. The use of any one of claims 8-10, wherein one or more anticancer agents is further to be administered to the subject.

12. The use of claim 11, wherein the anticancer agent is an immune checkpoint inhibitor wherein the immune checkpoint inhibitor is a PD-1 inhibitor, PD-L1 inhibitor, or CTLA-4 inhibitor.

13. The use of any one of claims 8-12, wherein an antibiotic is to be administered to the subject prior to the composition.

14. The use of claim 13, wherein the antibiotic is vancomycin.

15. A method, the method comprising

Determining, from a fecal matter sample obtained from a subject, if the bacterial mixture of the composition in any of claims 1 to 7 are present in the intestine of a subject,

wherein if less than 100%, less than 90%, less than 80%, less than 70%, less than 60%, less than 50%, less than 40%, less than 30%, less than 20%, less than 10%, or none of the bacterial species are present, the composition is to be administered to the subject.

16. The method of claim 15, wherein determining the presence of the bacterial mixture is done by sequencing the fecal matter sample obtained from the subject.