CLAIMS

1. A composition comprising a purified bacterial mixture comprising one or more bacterial strains of species selected from the group consisting of *Phascolarctobacterium faecium, Fusobacterium ulcerans, Bacteroides dorei, Bacteroides uniformis, Subdoligranulum sp., Paraprevotella xylaniphila, Parabacteroides johnsonii, Alistipes sp., Parabacteroides gordonii, Eubacterium limosum, Parabacteroides distasonis, Bacteroides cellulosilyticus, Bacteroides clarus, Anaerostipes caccae, Bacteroides salyersiae, Bacteroides fragilis, Bacteroides uniformis, Bacteroides eggerthii, Clostridium sp., Parabacteroides goldsteinii, Bacteroides sp., Lachnospiraceae bacterium HGA0140, Hungatella hathewayi, Clostridium lavalense, Ruminococcus sp.,* and *Clostridium innocuum.*

2. The composition of claim 1, wherein the purified bacterial mixture comprises at least 2, at least 3, at least 4, at least 5, at least 6, at least 7, at least 8, at least 9, at least 10, at least 11, at least 12, at least 13, at least 14, at least 15, at least 16, at least 17, at least 18, at least 19, at least 20, at least 21, at least 22, at least 23, at least 24, at least 25, or at least 26 bacterial strains.

3. The composition of claim 1, wherein the composition comprises 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.*

4. 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.

5. The composition of any one of the preceding claims, wherein the composition is a pharmaceutical composition.

6. The composition of claims 4 or 5, wherein the pharmaceutical composition comprises a pharmaceutically acceptable excipient.

7. The composition of any one of the preceding claims, wherein one or more of the bacterial strains is lyophilized.

8. The composition of any one of claims 4 to 7, wherein the pharmaceutical composition is in the form of a capsule.

9. The composition of any one of claims 4 to 8, wherein the pharmaceutical composition further comprises a pH sensitive composition comprising one or more enteric polymers.

10. 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-L-1 inhibitor, or CTLA-4 inhibitor.

11. 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.

12. The use of claim 11, 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.

13. The use of claim 12, wherein the cancer is melanoma, head and neck cancer, stomach cancer, esophageal cancer, non-small cell lung cancer or colorectal cancer.

14. The use of any one of claims 11-13, wherein one or more anticancer agents is to be administered to the subject.

15. The use of claim 14, wherein the anticancer agent is an immune checkpoint inhibitor wherein the immune checkpoint inhibitor is a PD-1 inhibitor, PD-L-1 inhibitor, or CTLA-4 inhibitor.

16. The use of any one of claims 11-15, wherein an antibiotic is to be administered to the subject prior to the pharmaceutical composition.

17. The use of claim 16, wherein the antibiotic is vancomycin.

18. A method, the method comprising

Determining, from a sample obtained from a subject, if one or more bacterial species of the composition in any of claims 1 to 10 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.

19. The method of claim 18, wherein determining the presence of one or more of the bacterial species is done by sequencing fecal matter sample obtained from the subject.