Claims

1. The use of a composition in the manufacture of a medicament for delaying or preventing metastatic disease in a subject with a HER2/neu positive osteosarcoma, wherein the composition comprising a recombinant attenuated *Listeria* comprising nucleic acid encoding a recombinant polypeptide, wherein said recombinant polypeptide comprises a HER2/neu chimeric antigen fused to an additional polypeptide, wherein said nucleic acid molecule comprises a first open reading frame encoding said recombinant polypeptide, wherein said nucleic acid molecule further comprises a second open reading frame encoding a metabolic enzyme, and wherein said metabolic enzyme complements an endogenous gene that is mutated in the chromosome of said recombinant *Listeria* strain.

2. The use of a composition of claim 1, wherein said composition comprises a Listeria dose of about 3.3×10^9 Listeria.

3. The use of a composition of claim 1, wherein said subject is a human or a canine subject.

4. The use of a composition of claim 3, wherein said human subject is a child, an adolescent or an adult.

5. The use of a composition of claim 1, wherein said fusion polypeptide to be administered to said subject prevents escape mutations within said tumor.

6. The use of a composition of claim 1, wherein said HER2/neu chimeric antigen is a human chimeric HER2/neu comprising at least 5, 9, 13, 14, or 17 of the mapped human MHC-class I epitopes.

7. The use of a composition of claim 1, wherein said chimeric HER2/neu is a chimeric canine HER2/neu.

8. The use of a composition of claim 1, wherein said nucleic acid molecule is integrated into the *Listeria* genome.

9. The use of a composition of claim 1, wherein said nucleic acid molecule is in a plasmid in said recombinant *Listeria* vaccine strain and wherein said plasmid is stably maintained in said recombinant *Listeria* vaccine strain in the absence of antibiotic selection.

10. The use of a composition of claim 1, wherein said recombinant *Listeria* comprises a mutation in the actA virulence gene.

11. The use of a composition of claim 1, wherein said additional polypeptide is selected from the group consisting of: a) non-hemolytic LLO protein or N-terminal fragment, b) a PEST sequence, or c) an ActA fragment.

12. The use of a composition of claim 1, wherein said metabolic enzyme encoded by said second open reading frame is an alanine racemase enzyme or a D-amino acid transferase enzyme.

13. The use of a composition of claim 1, further comprising an independent adjuvant.

14. The use of a composition of claim 13, wherein said adjuvant comprises a granulocyte/macrophage colony-stimulating factor (GM-CSF) protein, a nucleotide molecule encoding a GM-CSF protein, saponin QS21, monophosphoryl lipid A, or an unmethylated CpG-containing oligonucleotide.

15. The use of a composition of claim 1, wherein said osteosarcoma cancer is a canine osteosarcoma.

16. The use of a composition of claim 1, wherein said osteosarcoma is a pediatric osteosarcoma.

17. The use of a composition of claim 1, wherein administering the composition induces formation of antigen-specific T cells.

18. The use of a composition of claim 1, wherein the HER2/neu chimeric antigen has the sequence set forth in SEQ ID NO: 2.

19. The use of a composition of claim 10, wherein said recombinant Listeria comprises mutations in the dal and dat genes.

20. The use of a composition of claim 15, wherein the canine osteosarcoma is a canine appendicular osteosarcoma.