

CLAIMS

1. A composition comprising a cell modified to be hypoimmunogenic and to express one or more foreign
5 molecules.
2. The composition of claim 1 wherein the foreign molecule is a protein, carbohydrate, nucleotide, cytokines, chemokine, antibody or lectin.
- 10 3. The composition of claim 2 wherein the protein is antigenic.
4. The composition of claim 3 wherein the antigenic
15 protein is a viral antigen or an antigen against tumor epitopes.
5. The composition of claim 2 wherein the foreign molecule is an antibody.
- 20 6. The composition of claim 1 wherein the cell is modified to be hypoimmunogenic by eliminating or lowering expression of Class I epitopes and Class II epitopes.
- 25 7. The composition of claim 1 wherein the cell is a mesenchymal stem cell.
8. A vaccine comprising the composition of any one of claims 1 to 7 and a pharmaceutically acceptable carrier.
- 30 9. The vaccine of claim 8 further comprising an additional activation agent.
10. The vaccine of claim 9 wherein the activation
35 agent is foreign viral DNA or Poly I:C (Polyinosinic:polycytidylic acid).

11. Use of the composition of any one of claims 1 to 7 in the preparation of a medicament or a vaccine for inducing an immune response against a foreign antigen in a mammal.
- 5 12. Use of the composition of any one of claims 1 to 7 in the preparation of a medicament or a vaccine for protecting a mammal from a disease or infection relating to a foreign antigen in a mammal.
- 10 13. A method for producing a vaccine against a foreign antigen, said method comprising modifying a cell to be hypoimmunogenic and to express the foreign antigen.
- 15 14. The method of claim 13 wherein the cell is modified to be hypoimmunogenic by eliminating or lowering expression of Class I epitopes and Class II epitopes.
- 20 15. A vaccine comprising a cell modified to be hypoimmunogenic and an antigenic peptide or protein.
- 25 16. The vaccine of claim 15 wherein the cell is modified to be hypoimmunogenic by eliminating or lowering expression of Class I epitopes and Class II epitopes.
- 30 17. Use of a cell modified to be hypoimmunogenic and an antigenic peptide or protein in the preparation of a vaccine for enhancing an immune response to an antigenic peptide or protein in a mammal.
- 35 18. The use of any one of claims 11, 12 or 17, wherein the vaccine further comprises an additional activation agent.
19. The use of claim 18, wherein the activation agent is foreign viral DNA or Poly I:C (Polyinosinic:polycytidylic acid).