

What is Claimed is:

1. A composition comprising a cell modified to be hypoimmunogenic and to express one or more foreign molecules.
- 5 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 protein is a viral antigen or an antigen against tumor
15 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.
7. The composition of claim 1 wherein the cell is a
25 mesenchymal stem cell.
8. A vaccine comprising the composition of claim 1 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 agent is foreign viral DNA or Poly I:C
35 (Polyinosinic:polycytidylic acid).

11. A method for inducing an immune response against a foreign antigen in a mammal, said method comprising administering to the mammal the composition of claim 1 or
5 the vaccine of claim 8.

12. A method for protecting a mammal from a disease or infection relating to a foreign antigen, said method comprising administering to the mammal the composition of
10 claim 1 or the vaccine of claim 8.

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.
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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.

16. The vaccine of claim 15 wherein the cell is modified to be hypoimmunogenic by eliminating or lowering
25 expression of Class I epitopes and Class II epitopes.

17. A method for enhancing an immune response to an antigenic peptide or protein in a mammal, said method comprising administering to the mammal the vaccine of claim
30 15.