What is claimed is:

1. A melanoma vaccine comprising:

at least one dendritic cell from a subject that has melanoma;

wherein the at least one dendritic cell had been contacted *in vitro* with at least one melanoma tumor cell from the same subject, wherein the at least one melanoma tumor cell is non-dividing and not treated *in vitro* with interferon-gamma (IFN-gamma) or a IFN-gamma mimetic, and at least 60% of the melanoma tumor cells are autophagic and non-apoptotic, wherein the vaccine is effective to provide superior long-term survival rates compared to patient-specific tumor cell vaccines.

2. Use of an immune-stimulatory amount of the melanoma vaccine of claim 1 in the manufacture of a medicament for stimulating an immune response against a melanoma-specific antigen in a subject with melanoma.

3. The use of claim 2, wherein the immune response comprises one or more of a $CD4^+$ T cell response, a $CD8^+$ T cell response, and a B cell response.

4. The use of claim 3, wherein the $CD4^+$ T cell response, $CD8^+$ T cell response, or B cell response is determined by ELISPOT assays, by intracellular cytokine staining assays, by tetramer assays, or by detecting antigen-specific antibody production.

5. The use of claim 2, wherein the immune response results in a 2-year overall survival of at least 60%.

6. The use of claim 2, wherein the immune-stimulatory amount is formulated for subcutaneous injections of the vaccine.

7. The use of claim 6, wherein the injections of the vaccine are given weekly for three months and then monthly for five months.

8. A method for preparing a melanoma vaccine comprising melanoma cells and dendritic cells from the same subject, the method comprising:

treating one or more melanoma cells with an agent that prevents cell division; wherein the one or more melanoma cells are not treated *in vitro* with interferon-gamma (IFN-gamma) or with an IFN-gamma mimetic;

selecting melanoma cells that are autophagic and non-apoptotic;

rejecting melanoma cells that are non-autophagic and apoptotic;

contacting the melanoma cells that are autophagic and non-apoptotic, or peptides derived from the melanoma cells, with one or more autologous dendritic cells *in vitro*; and

allowing the one or more autologous dendritic cells to acquire at least one melanoma-derived peptide from the melanoma cells to produce a melanoma vaccine, wherein the vaccine is effective to provide superior long-term survival rates compared to patient-specific tumor cell vaccines.

9. The melanoma vaccine of claim 1, wherein greater than 80% of the melanoma cells are autophagic and non-apoptotic.

10. The melanoma vaccine of claim 1, wherein essentially all of the melanoma cells are incapable of cell division.

11. The melanoma vaccine of claim 1, wherein the melanoma cells are rendered incapable of cell division by irradiation or by a nucleic acid cross-linker.

12. Use of the melanoma vaccine of claim 1, in the manufacture of a medicament for the treatment of melanoma.

13. Use of an immune-stimulatory amount of the melanoma vaccine of claim 1 in the manufacture of a medicament for treating melanoma in a subject in need thereof.

What is claimed is:

Claim 1. A melanoma vaccine comprising:

at least one dendritic cell from a subject that has melanoma;

wherein the at least one dendritic cell had been contacted *in vitro* with at least one melanoma tumor cell from the same subject, wherein the at least one melanoma tumor cell is non-dividing and not treated *in vitro* with interferon-gamma (IFN-gamma) or a IFN-gamma mimetic, and at least 60% of the melanoma tumor cells are autophagic and non-apoptotic.

Claim 2. Use of an immune-stimulatory amount of the melanoma vaccine of claim 1 in the manufacture of a medicament for stimulating an immune response against a melanoma-specific antigen in a subject with melanoma.

Claim 3. The use of claim 2, wherein the immune response comprises one or more of a $CD4^+$ T cell response, a $CD8^+$ T cell response, and a B cell response.

Claim 4. The use of claim 3, wherein the $CD4^+$ T cell response, $CD8^+$ T cell response, or B cell response is determined by ELISPOT assays, by intracellular cytokine staining assays, by tetramer assays, or by detecting antigen-specific antibody production.

Claim 5. The use of claim 2, wherein the immune response results in a 2-year overall survival of at least 60%.

Claim 6. The use of claim 2, wherein the administration comprises subcutaneous injections of the vaccine.

Claim 7. The use of claim 2, wherein the administration comprises injections of the vaccine given weekly for three months and then monthly for five months.

Claim 8. A method for preparing a melanoma vaccine comprising melanoma cells and dendritic cells from the same subject, the method comprising:

treating one or more melanoma cells with an agent that prevents cell division; wherein the one or more melanoma cells are not treated *in vitro* with interferon-gamma (IFN-gamma) or with an IFN-gamma mimetic;

selecting melanoma cells that are autophagic and non-apoptotic, wherein melanoma cells that are non-autophagic and apoptotic are rejected;

contacting the melanoma cells that are autophagic and non-apoptotic, or peptides derived from the melanoma cells, and one or more autologous dendritic cells to produce a melanoma vaccine.

Claim 9. A composition comprising:

at least one melanoma cell from a subject with melanoma, wherein the at least one melanoma cell is not treated *in vitro* with interferon-gamma (IFN-gamma), and

at least one antigen presenting cell (APC) from the same subject, wherein the melanoma cell is autophagic; and non-apoptotic.

Claim 10. The composition of claim 9, wherein the melanoma cell expresses MHC class II.

Claim 11. The composition of claim 9, wherein the APC is a dendritic cell, a macrophage, or a B cell.

Claim 12. The composition of claim 9, wherein the melanoma cells comprise melanoma-specific peptides and, as a result of the contacting step, the melanoma specific-peptides are substantially contained in said APCs and are partially or substantially processed in said APCs.

Claim 13. The composition of claim 9, wherein the melanoma cell is loaded into the APC.

Claim 14. Use of an immunologically effective amount of the composition of claim 9 in the manufacture of a medicament for stimulating an immune response against a melanoma-associated antigen in a subject having melanoma.

Claim 15. A method for preparing a melanoma vaccine, comprising:

treating melanoma cells obtained from a subject with melanoma with an agent that prevents cell division, wherein the melanoma cells are not treated *in vitro* with IFN-gamma or an IFN-gamma mimetic;

selecting melanoma cells that are autophagic and non-apoptotic; and,

selecting melanoma cells that are autophagic and non-apoptotic; and, same subject to form a melanoma vaccine.

Claim 16. A composition comprising a melanoma vaccine, prepared by the method of claim 15.

Claim 17. The melanoma vaccine of claim 1, wherein greater than 80% of the melanoma cells are autophagic and non-apoptotic.

Claim 18. The melanoma vaccine of claim 1, wherein essentially all of the melanoma cells are incapable of cell division.

Claim 19. The melanoma vaccine of claim 1, wherein the melanoma cells are rendered incapable of cell division by irradiation or by a nucleic acid cross-linker.

Claim 20. Use of the melanoma vaccine of claim 1 in the manufacture of a medicament for stimulating an immune response against a melanoma-specific antigen in a subject with melanoma.

Claim 21. Use of the composition of claim 9 in the manufacture of a medicament for stimulating an immune response against a melanoma-associated antigen in a subject with melanoma.

Claim 22. Use of the composition of claim 9 for the treatment of melanoma.

Claim 23. Use of the melanoma vaccine of claim 1 for the treatment of melanoma.

Claim 24. Use of an immune-stimulatory amount of the melanoma vaccine of claim 1 in the manufacture of a medicament for treating melanoma in a subject in need thereof.

Claim 25. Use of an immune-stimulatory amount of the composition of claim 9 in the manufacture of a medicament for treating melanoma in a subject in need thereof.