What is claimed is:

1. A method to reduce, arrest, reverse, delay or prevent the metastatic progression of cancer in an individual who has cancer, comprising administering to an individual who has a cancer that is undergoing metastatic progression, is at risk of undergoing metastatic progression, or is predicted to begin undergoing metastatic progression, an immunotherapeutic composition comprising:

a) a yeast vehicle; and

b) a cancer antigen comprising at least one Brachyury antigen.

2. The method of Claim 1, wherein Brachyury expression is not detected in the individual's cancer at the time the composition is first administered.

3. The method of Claim 1, wherein Brachyury expression is detected in the individual's cancer at the time the composition is first administered.

4. The method of Claim 1, wherein the individual has a stage I cancer.

5. The method of Claim 1, wherein the individual has a stage II cancer.

6. The method of Claim 1, wherein the individual has a stage III cancer.

7. The method of Claim 1, wherein the individual has a stage IV cancer.

8. A method to prevent or delay the onset of a Brachyury-expressing cancer, comprising administering to an individual an immunotherapeutic composition comprising:

a) a yeast vehicle; and

b) a cancer antigen comprising at least one Brachyury antigen.

9. The method of Claim 8, wherein cancer has not been detected in the individual.

10. The method of Claim 9, wherein the individual is at high risk for developing cancer.

11. The method of Claim 8, wherein the individual has a pre-cancerous lesion.

12. The method of Claim 8, wherein the individual has cancer, but Brachyury-expressing cancer cells have not been detected in the cancer.

13. The method of Claim 12, wherein the cancer is not yet metastatic.

14. The method of Claim 12, wherein the cancer has a high risk of metastasizing.

15. The method of Claim 12, wherein the subject has a stage I cancer.

16. The method of Claim 12, wherein the subject has a stage II cancer.

17. The method of any one of Claims 1 to 16, wherein the individual is being treated or has been treated with another therapy for cancer.

18. The method of Claim 17, wherein the therapy is chemotherapy.

19. The method of Claim 17, wherein the therapy is targeted cancer therapy.

20. The method of Claim 17, wherein the therapy is radiation therapy.

21. The method of Claim 17, wherein the therapy is adoptive T cell transfer.

22. The method of Claim 17, wherein the therapy is administration of one or more additional immunotherapeutic compositions.

23. The method of Claim 22, wherein the additional immunotherapeutic compositions comprise a yeast vehicle and a second cancer antigen that does not include Brachyury antigen.

24. The method of Claim 23, wherein the second cancer antigen is selected from the group consisting of: mutated Ras, carcinoembryonic antigen (CEA), MUC-1, EGFR, BCR-Abl, MART-1, MAGE-1, MAGE-3, GAGE, GP-100, MUC-2, PSMA, tyrosinase, TRP-1 (gp75), NY-ESO-1, TRP-2, TAG72, KSA, CA-125, PSA, HER-2/neu/c-erb/B2, hTERT, p73, B-RAF, adenomatous polyposis coli (APC), Myc, von Hippel-Lindau protein (VHL), Rb-1, Rb-2, androgen receptor (AR), Smad4, MDR1, Flt-3, BRCA-1, BRCA-2, pax3-fkhr, ews-flt-1, HERV-H, HERV-K, TWIST, Mesothelin, and NGEP.

25. The method of Claim 23, wherein the second cancer antigen is selected from the group consisting of: mutated Ras, carcinoembryonic antigen (CEA), and MUC-1.

26. A method to reduce or prevent chemotherapy-resistance or radiation-resistance of tumor cells in a patient with cancer, comprising administering to an individual who has cancer and is receiving chemotherapy and/or radiation therapy an immunotherapeutic composition comprising:

a) a yeast vehicle; and

b) a cancer antigen comprising at least one Brachyury antigen.

27. The method of Claim 26, wherein Brachyury is not detected in the individual's cancer at the time the composition is first administered.

28. The method of Claim 26, wherein Brachyury expression is detected in the individual's cancer at the time the composition is first administered.

29. A method to treat cancer, comprising:

a) Administering to an individual who has cancer in which Brachyury expression has not been detected, a first immunotherapeutic composition comprising a yeast vehicle and a first cancer antigen that does not comprise a Brachyury antigen; and

b) Administering to the individual, prior to, concurrently with, sequentially with, or subsequent to, administration of the first immunotherapeutic composition a second immunotherapeutic composition comprising a yeast vehicle and a second cancer antigen comprising a Brachyury antigen.

30. The method of Claim 29, further comprising in step (a), administering one or more additional immunotherapeutic compositions, wherein the each of the one or more additional immunotherapeutic compositions comprises an additional cancer antigen.

31. The method of Claim 29 or Claim 30, wherein the cancer antigen is selected from the group consisting of: mutated Ras, carcinoembryonic antigen (CEA), MUC-1, EGFR, BCR-Abl, MART-1, MAGE-1, MAGE-3, GAGE, GP-100, MUC-2, PSMA, tyrosinase, TRP-1 (gp75), NY-ESO-1, TRP-2, TAG72, KSA, CA-125, PSA, HER-2/neu/c-erb/B2, hTERT, p73, B-RAF, adenomatous polyposis coli (APC), Myc, von Hippel-Lindau protein (VHL), Rb-1, Rb-2, androgen receptor (AR), Smad4, MDR1, Flt-3, BRCA-1, BRCA-2, pax3-fkhr, ews-fli-1, HERV-H, HERV-K, TWIST, Mesothelin, and NGEP.

32. The method of Claim 29 or Claim 30, wherein the cancer antigen is selected from the group consisting of: mutated Ras, carcinoembryonic antigen (CEA), and MUC-1.

33. A method to treat cancer, comprising:

a) Administering to an individual who has cancer a first immunotherapeutic composition comprising a yeast vehicle and a mutated Ras antigen;

b) Administering to the individual of (a) a second immunotherapeutic composition comprising a yeast vehicle and an antigen selected from the group consisting of carcinoembryonic antigen (CEA) and mucin-1 (MUC-1); and

c) Administering to the individual of (a) and (b) a third immunotherapeutic composition comprising a yeast vehicle and a Brachyury antigen.

34. The method of Claim 33, wherein the steps of administration in (a), (b) and (c) are concurrent.

35. The method of any one of Claims 1 to 34, wherein the method reduces tumor burden in the individual, increases survival of the individual, and/or inhibits tumor growth in the individual.

36. The method of any one of Claims 1 to 35, wherein the method further comprises surgical resection of a tumor from the individual.

37. The method of any one of Claims 1 to 36, wherein the cancer is of epithelial cell origin.

38. The method of any one of Claims 1 to 36, wherein the cancer is selected from the group consisting of: breast cancer, small intestine cancer, stomach cancer, pancreatic cancer, kidney cancer, bladder cancer, uterine cancer, ovarian cancer, testicular cancer, lung cancer, colon cancer, prostate cancer, chronic lymphocytic leukemia (CLL), Epstein-Barr virus transformed B cells, Burkitt's lymphoma, Hodgkin's lymphoma, and metastatic cancers thereof.

39. The method of any one of Claims 1 to 38, wherein the Brachyury antigen is full-length human Brachyury.

40. The method of any one of Claims 1 to 38, wherein the Brachyury antigen is not full-length Brachyury.

41. The method of any one of Claims 1 to 38, wherein the Brachyury antigen has an amino acid sequence represented by SEQ ID NO:6, SEQ ID NO:18 or SEQ ID NO:2, or an amino acid sequence that is at least 95% identical to SEQ ID NO:6, SEQ ID NO:18 or SEQ ID NO:2.

42. The method of any one of Claims 1 to 38, wherein the Brachyury antigen comprises from at least position 1 or 2 to between position 255 and the C-terminus of SEQ ID NO:6, SEQ ID NO:18 or SEQ ID NO:2.

43. The method of any one of Claims 1 to 38, wherein the Brachyury antigen comprises from at least position 1 or 2 to between position 430 and the C-terminus of SEQ ID NO:6, SEQ ID NO:18 or SEQ ID NO:2.

44. The method of any one of Claims 1 to 38, wherein the Brachyury antigen comprises positions 246 to 254 of SEQ ID NO:6, SEQ ID NO:18 or SEQ ID NO:2.

45. The method of any one of Claims 1 to 38, wherein the Brachyury antigen comprises SEQ ID NO:6, positions 2-435 of SEQ ID NO:6, or an amino acid sequence that is at least 95% identical to SEQ ID NO:6.

46. The method of any one of Claims 1 to 38, wherein the Brachyury antigen comprises SEQ ID NO:18, positions 2-435 of SEQ ID NO:18, or an amino acid sequence that is at least 95% identical to SEQ ID NO:18.

47. The method of any one of Claims 1 to 38, wherein the Brachyury antigen comprises SEQ ID NO:2, positions 2-435 of SEQ ID NO:2, or an amino acid sequence that is at least 95% identical to SEQ ID NO:2.

48. The method of any one of Claims 1 to 38, wherein the Brachyury antigen comprises SEQ ID NO:6, positions 2-435 of SEQ ID NO:6, or an amino acid sequence that is at least 99% identical to SEQ ID NO:6.

49. The method of any one of Claims 1 to 38, wherein the Brachyury antigen comprises SEQ ID NO:18, positions 2-435 of SEQ ID NO:18, or an amino acid sequence that is at least 99% identical to SEQ ID NO:18.

50. The method of any one of Claims 1 to 38, wherein the Brachyury antigen comprises SEQ ID NO:2, positions 2-435 of SEQ ID NO:2, or an amino acid sequence that is at least 99% identical to SEQ ID NO:2.

51. The method of any one of Claims 1 to 50, wherein the cancer antigen is at least 25 amino acids in length.

52. The method of any one of Claims 1 to 50, wherein the Brachyury antigen is at least 25 amino acids in length.

53. The method of any one of Claims 1 to 50, wherein the Brachyury antigen is greater than 30 amino acids in length.

54. The method of any one of Claims 1 to 53, wherein the cancer antigen comprises two or more immunogenic domains of Brachyury.

55. The method of any one of Claims 1 to 54, wherein a cancer antigen is a fusion protein.

56. The method of Claim 55, wherein the fusion protein has an amino acid sequence represented by SEQ ID NO:8, or an amino acid sequence that is at least 95% identical to SEQ ID NO:8.

57. The method of Claim 55, wherein the fusion protein has an amino acid sequence represented by SEQ ID NO:20, or an amino acid sequence that is at least 95% identical to SEQ ID NO:20.

58. The method of any one of Claims 1 to 57, wherein the yeast vehicle is a whole yeast.

59. The method of Claim 58, wherein the whole yeast is killed.

60. The method of Claim 58, wherein the whole yeast is heat-inactivated.

61. The method of any one of Claims 1 to 60, wherein the yeast vehicle expresses the antigen.

62. The method of any one of Claims 1 to 60, wherein the yeast is from a genus selected from the group consisting of: *Saccharomyces, Candida*, *Cryptococcus, Hansenula, Kluyveromyces, Pichia, Rhodotorula, Schizosaccharomyces* and *Yarrowia*.

63. The method of any one of Claims 1 to 60, wherein the yeast is from *Saccharomyces*.

64. The method of any one of Claims 1 to 60, wherein the yeast is from *Saccharomyces cerevisiae*.

65. The method of any one of Claims 1 to 64, wherein the composition is formulated in a pharmaceutically acceptable excipient suitable for administration to a subject.

66. A yeast-Brachyury immunotherapeutic composition, wherein the immunotherapeutic composition comprises:

a) a yeast vehicle;

b) an antigen expressed by the yeast vehicle and comprising at least one Brachyury antigen, wherein the Brachyury antigen comprises greater than 30 amino acids of an amino acid sequence represented by SEQ ID NO:2, SEQ ID NO:6, or SEQ ID NO:18; and

c) a pharmaceutically acceptable excipient suitable for administration to a human.

67. The yeast-Brachyury immunotherapeutic composition of Claim 66, wherein the Brachyury antigen comprises an amino acid sequence that is at least 95% identical to SEQ ID NO:6, SEQ ID NO:18, or SEQ ID NO:2.

68. The yeast-Brachyury immunotherapeutic composition of Claim 66, wherein the Brachyury antigen comprises from at least position 1 or 2 to between position 255 and the C-terminus of SEQ ID NO:6, SEQ ID NO:18, or SEQ ID NO:2.

69. The yeast-Brachyury immunotherapeutic composition of Claim 66, wherein the Brachyury antigen comprises from at least position 1 or 2 to between position 430 and the C-terminus of SEQ ID NO:6, SEQ ID NO:18, or SEQ ID NO:2.

70. The yeast-Brachyury immunotherapeutic composition of Claim 66, wherein the Brachyury antigen comprises positions 246 to 254 of SEQ ID NO:6, SEQ ID NO:18, or SEQ ID NO:2.

71. The yeast-Brachyury immunotherapeutic composition of Claim 66, wherein the Brachyury antigen comprises SEQ ID NO:6, positions 2-435 of SEQ ID NO:6, or an amino acid sequence that is at least 95% identical to SEQ ID NO:6.

72. The yeast-Brachyury immunotherapeutic composition of Claim 66, wherein the Brachyury antigen comprises SEQ ID NO:18, positions 2-435 of SEQ ID NO:18, or an amino acid sequence that is at least 95% identical to SEQ ID NO:18.

73. The yeast-Brachyury immunotherapeutic composition of Claim 66, wherein the Brachyury antigen comprises SEQ ID NO:2, positions 2-435 of SEQ ID NO:2, or an amino acid sequence that is at least 95% identical to SEQ ID NO:2.

74. The yeast-Brachyury immunotherapeutic composition of Claim 66, wherein the Brachyury antigen comprises SEQ ID NO:6, positions 2-435 of SEQ ID NO:6, or an amino acid sequence that is at least 99% identical to SEQ ID NO:6.

75. The yeast-Brachyury immunotherapeutic composition of Claim 66, wherein the Brachyury antigen comprises SEQ ID NO:18, positions 2-435 of SEQ ID NO:18, or an amino acid sequence that is at least 99% identical to SEQ ID NO:18.

76. The yeast-Brachyury immunotherapeutic composition of Claim 66, wherein the Brachyury antigen comprises SEQ ID NO:2, positions 2-435 of SEQ ID NO:2, or an amino acid sequence that is at least 99% identical to SEQ ID NO:2.

77. The yeast-Brachyury immunotherapeutic composition of any one of Claims 66 to 76, wherein the cancer antigen is a fusion protein.

78. The yeast-Brachyury immunotherapeutic composition of Claim 77, wherein the fusion protein has an amino acid sequence that is at least 95% identical to SEQ ID NO:8.

79. The yeast-Brachyury immunotherapeutic composition of Claim 77, wherein the fusion protein has an amino acid sequence that is at least 95% identical to SEQ ID NO:20.

80. The yeast-Brachyury immunotherapeutic composition of any one of Claims 66 to 78, wherein the yeast vehicle is a whole yeast.

81. The yeast-Brachyury immunotherapeutic composition of any one of Claims 66 to 78, wherein the whole yeast is heat-inactivated.

82. A yeast-Brachyury immunotherapeutic composition comprising:

a) a whole, inactivated yeast; and

b) a Brachyury fusion protein comprising the amino acid sequence of positions 2-435 of SEQ ID NO:6, wherein expression of the Brachyury fusion protein is under the control of the promoter *CUP1*;

wherein the Brachyury fusion protein is expressed by the yeast; and

wherein the composition elicits a Brachyury-specific T cell response.

83. The yeast-Brachyury immunotherapeutic composition of Claim 84, wherein the fusion protein comprises the amino acid sequence of SEQ ID NO:8.

84. A yeast-Brachyury immunotherapeutic composition comprising:

a) a whole, inactivated yeast; and

b) a Brachyury fusion protein comprising the amino acid sequence of positions 2-435 of SEQ ID NO:18, wherein expression of the Brachyury fusion protein is under the control of the promoter *CUP1*;

wherein the Brachyury fusion protein is expressed by the yeast; and

wherein the composition elicits a Brachyury-specific T cell response.

85. The yeast-Brachyury immunotherapeutic composition of Claim 84, wherein the fusion protein comprises the amino acid sequence of SEQ ID NO:20.

86. The yeast-Brachyury immunotherapeutic composition of any one of Claims 66 to 85, wherein the yeast vehicle is from *Saccharomyces*.

87. The yeast-Brachyury immunotherapeutic composition of any one of Claims 66 to 85, wherein the yeast vehicle is from *Saccharomyces cerevisiae*.

88. A yeast-Brachyury immunotherapeutic composition of any one of Claims 66 to 87 for use to treat a disease.

89. The yeast-Brachyury immunotherapeutic composition of Claim 88, wherein the disease is cancer.

90. The yeast-Brachyury immunotherapeutic composition of Claim 88, wherein the disease is associated with Epstein Barr Virus (EBV) infection.

91. A method to treat or prevent a disease or condition associated with Epstein Barr Virus (EBV) infection, comprising administering to an individual a yeast-Brachyury immunotherapeutic composition of any one of Claims 66 to 87.

92. A method to produce a yeast-Brachyury immunotherapeutic composition, comprising:

a) culturing yeast that have been transformed with a recombinant nucleic acid molecule encoding a Brachyury antigen under the control of a *CUP1* promoter in a suitable medium in the absence of $CuSO_4$ until the yeast reach mid-log growth phase;

b) inducing expression of the Brachyury antigen in the yeast by adding $CuSO_4$ to the medium;

c) culturing the yeast after step (b) for up to between 6 and 8 hours; and

d) harvesting the yeast.

93. The method of Claim 92, wherein the yeast in step (a) are cultured to a cell density of between 1.0 and 2.0 Y.U. per milliliter total culture volume.

94. The method of Claim 92, wherein the yeast in step (a) are cultured to a cell density of between 1.0 and 1.5 Y.U. per milliliter total culture volume.

95. The method of Claim 92, wherein the yeast are cultured in steps (a)-(c) in a medium where the pH is maintained at pH 5.5 or higher.

96. The method of Claim 92, further comprising heat-inactivating the yeast after step (d).

97. The method of Claim 96, wherein the yeast are heat-inactivated at about 56°C for about 1 hour.

98. The method of any one of Claims 92 to 97, further comprising formulating the yeast for injection with a pharmaceutically acceptable excipient.

99. The method of any one of Claims 92 to 98, wherein the yeast are from *Saccharomyces*.

100. The method of any one of Claims 92 to 98, wherein the yeast are from *Saccharomyces cerevisiae*.

101. Use of an immunotherapeutic composition comprising a yeast vehicle and a cancer antigen comprising at least one Brachyury antigen to reduce, arrest, reverse or prevent the metastatic progression of cancer in an individual who has cancer.

102. Use of an immunotherapeutic composition comprising a yeast vehicle and a cancer antigen comprising at least one Brachyury antigen to prevent or delay the onset of a Brachyury-expressing cancer.

103. Use of an immunotherapeutic composition comprising a yeast vehicle and a cancer antigen comprising at least one Brachyury antigen to reduce or prevent chemotherapy-resistance or radiation-resistance of tumor cells in a patient with cancer.

104. Use of a combination of immunotherapeutic compositions to treat cancer, the immunotherapeutic compositions comprising:

a) a first immunotherapeutic composition comprising a yeast vehicle and a first cancer antigen that does not comprise a Brachyury antigen; and

b) a second immunotherapeutic composition comprising a yeast vehicle and a second cancer antigen comprising a Brachyury antigen.

105. Use of a combination of immunotherapeutic compositions to treat cancer, the immunotherapeutic compositions comprising:

a) a first immunotherapeutic composition comprising a yeast vehicle and a mutated Ras antigen;

b) a second immunotherapeutic composition comprising a yeast vehicle and an antigen selected from the group consisting of carcinoembryonic antigen (CEA) and mucin-1 (MUC-1); and

c) a third immunotherapeutic composition comprising a yeast vehicle and a Brachyury antigen.

What is claimed is:

1. A yeast-Brachyury immunotherapeutic composition comprising:

a) a whole, inactivated yeast; and

b) a Brachyury fusion protein comprising the amino acid sequence of positions 2-435 of SEQ ID NO:6 or the amino acid sequence of positions 2-435 of SEQ ID NO:18;

wherein the Brachyury fusion protein is expressed by the yeast; and wherein the composition elicits a Brachyury-specific T cell response.

2. The composition of claim 1 wherein the Brachyury fusion protein comprises the amino acid sequence of positions 2-435 of SEQ ID NO:6.

3. The composition of claim 1 wherein the Brachyury fusion protein comprises the amino acid sequence of positions 2-435 of SEQ ID NO:18.

4. The composition of claim 1 wherein the Brachyury fusion protein comprises the amino acid sequence of SEQ ID NO:8.

5. The composition of claim 1 wherein the Brachyury fusion protein comprises the amino acid sequence of SEQ ID NO:20.

6. The composition of claim 1, wherein the whole yeast is heat-inactivated.

7. The composition of Claim 1, wherein the yeast is *Saccharomyces cerevisiae*.

8. A yeast-Brachyury immunotherapeutic composition comprising:

a) a whole, inactivated yeast; and

b) a Brachyury fusion protein comprising the amino acid sequence of positions 2-435 of SEQ ID NO:6, wherein expression of the Brachyury fusion protein is under the control of the promoter *CUP1*;

wherein the Brachyury fusion protein is expressed by the yeast; and

wherein the composition elicits a Brachyury-specific T cell response.

9. A yeast-Brachyury immunotherapeutic composition comprising:

a) a whole, inactivated yeast; and

b) a Brachyury fusion protein comprising the amino acid sequence of positions 2-435 of SEQ ID NO:18, wherein expression of the Brachyury fusion protein is under the control of the promoter *CUP1*;

wherein the Brachyury fusion protein is expressed by the yeast; and

wherein the composition elicits a Brachyury-specific T cell response.

10. A method to produce a yeast-Brachyury immunotherapeutic composition, comprising:

a) culturing yeast that have been transformed with a recombinant nucleic acid molecule encoding a Brachyury antigen under the control of a *CUP1* promoter in a suitable medium in the absence of $CuSO_4$ until the yeast reach mid-log growth phase;

b) inducing expression of the Brachyury antigen in the yeast by adding $CuSO_4$ to the medium;

c) culturing the yeast after step (b) for up to between 6 and 8 hours; and

d) harvesting the yeast.

11. The method of claim 10, wherein the yeast in step (a) are cultured to a cell density of between 1.0 and 1.5 Y.U. per milliliter total culture volume.