What is claimed:

1. A method for treating or preventing a sarcoma in a human, comprising:

topically administering a Coenzyme Q10 molecule to the human such that treatment or prevention occurs.

2. The method of claim 1, wherein the topical administration is via a dose selected for providing efficacy in humans for the sarcoma being treated.

3. The method of claim 1, wherein the sarcoma being treated is not a sarcoma typically treated via topical administration with the expectation of systemic delivery of an active agent at therapeutically effective levels.

4. The method of claim 1, wherein the concentration of said Coenzyme Q10 molecule in the tissues of the humans being treated is different than that of a control standard of human tissue representative of a healthy or normal state.

5. The method of claim 1, wherein the form of said Coenzyme Q10 molecule administered to the human is different than the predominant form found in systemic circulation within the human.

6. The method of any one of claims 1-5, wherein the treatment occurs via an interaction of the Coenzyme Q10 molecule with a gene selected from the group consisting of ANGPTL3, CCL2, CDH5, CXCL1, CXCL3, PRMT3, HDAC2, Nitric Oxide Synthase bNOS, Acetyl phospho Histone H3 AL9 S10, MTA 2, Glutamic Acid Decarboxylase GAD65 67, KSR, HDAC4, BOB1 OBF1, a1Syntrophin, BAP1, Importina 57, α-E-Catenin, Grb2, Bax, Proteasome 26S subunit 13 (Endophilin B1), Actin-like 6A (Eukaryotic Initiation Factor 4All), Nuclear Chloride Channel protein, Proteasome 26S subunit, Dismutase Cu/Zn Superoxide, Translin-associated factor X, Arsenite translocating ATPase (Spermine synthetase), ribosomal protein SA, dCTP pyrophosphatase 1, proteasome beta 3, proteasome beta 4, acid phosphatase 1, diazepam binding inhibitor, alpha 2-HS glycoprotein (Bos Taurus, cow), ribosomal protein P2 (RPLP2); histone H2A, microtubule associated protein, proteasome alpha 3, eukaryotic translation elongation factor 1 delta, lamin B1, SMT 3 suppressor of mif two 3 homolog

2, heat shock protein 27kD, hnRNP C1/C2, eukaryotc translation elongation factor 1 beta 2, Similar to HSPC-300, DNA directed DNA polymerase epislon 3; (canopy 2 homolog), LAMA5, PXLDC1, p300 CBP, P53R2, Phosphatidylserine Receptor, Cytokeratin Peptide 17, Cytokeratin peptide 13, Neurofilament 160 200, Rab5, Filensin, P53R2, MDM2, MSH6, Heat Shock Factor 2, AFX, FLIPg d, JAB 1, Myosine, MEKK4, cRaf pSer621, FKHR FOXO1a, MDM2, Fas Ligand, P53R2, Myosin Regulatory Light Chain, hnRNP C1/C2, Ubiquilin 1 (Phosphatase 2A), hnRNP C1/C2, alpha 2-HS glycoprotein (Bos Taurus, cow), beta actin, hnRNP C1/C2, heat shock protein 70kD, beta tubulin, ATP dependent helicase II, eukaryotc translation elongation factor 1 beta 2, ER lipid raft associated 2 isoform 1 (beta actin), signal sequence receptor 1 delta, Eukaryotic translation initiation factor 3, subunit 3 gamma, Bilverdin reductase A (Transaldolase 1), Keratin 1,10 (Parathymosin), GST omega 1, chain B Dopamine Quinone Conjugation to Dj-1, Proteasome Activator Reg (alpha), T-complex protein 1 isoform A, Chain A Tapasin ERP57 (Chaperonin containing TCP1), Ubiquitin activating enzyme E1; Alanyl-tRNA synthetase, Dynactin 1, Heat shock protein 60kd, Beta Actin, Spermidine synthase (Beta Actin), Heat Shock protein 70kd, retinoblastoma binding protein 4 isoform A, TAR DNA binding protein, eukaryotic translation elongation factor 1 beta 2, chaperonin containing TCP1, subunit 3, cytoplasmic dynein IC-2, Angiotensin-converting enzyme (ACE), Caspase 3, GARS, Matrix Metalloproteinase 6 (MMP-6), Neurolysin (NLN)-Catalytic Domain, and Neurolysin (NLN), ADRB, CEACAM1, DUSP4, FOXC2, FOXP3, GCGR, GPD1, HMOX1, IL4R, INPPL1, IRS2, VEGFA, putative c-myc-responsive isoform 1, PDK 1, Caspase 12, Phospholipase D1, P34 cdc2, P53 BP1, BTK, ASC2, BUBR1, ARTS, PCAF, Raf1, MSK1, SNAP25, APRIL, DAPK, RAIDD, HAT1, PSF, HDAC1, Rad17, Surviving, SLIPR, MAG13, Caspase 10, Crk2, Cdc 6, P21 WAF 1 Cip 1, ASPP 1, HDAC 4, Cyclin B1, CD 40, GAD 65, TAP, Par4 (prostate apoptosis response 4), MRP1, MDC1, Laminin2 a2, bCatenin, FXR2, AnnexinV, SMAC Diablo, MBNL1, DImethyl Histone h3, Growth factor independence 1, U2AF65, mTOR, E2F2, Kaiso, Glycogen Synthase Kinase 3, ATF2, HDRP MITR, Neurabin I, AP1, and Apaf1.

7. The method of claim 2, wherein the Coenzyme Q10 molecule is applied in a topical vehicle to a target tissue at a dose in the range of about 0.01 to about 0.5 milligrams of coenzyme Q10 per square centimeter of skin.

8. The method of claim 2, wherein the Coenzyme Q10 molecule is applied in a topical vehicle to a target tissue at a dose in the range of about 0.09 to about 0.15 milligrams of coenzyme Q10 per square centimeter of skin.

9. The method of claim 2, wherein the Coenzyme Q10 molecule is applied in a topical vehicle to a target tissue at a dose of about 0.12 milligrams of coenzyme Q10 per square centimeter of skin.

10. The method of claim 1, wherein the sarcoma is a type of sarcoma in Ewing's family of tumors.

11. The method of claim 10, wherein the type of sarcoma in Ewing's family of tumors is Ewing's sarcoma.

12. A method for inhibiting the activity of the EWS-FLI1 fusion protein in a human comprising:

selecting a human subject suffering from a sarcoma, and

administering to said human a therapeutically effective amount of a coenzyme Q10 molecule, thereby inhibiting the activity of the EWS-FLI1 fusion protein.

13. A method for treating or preventing a sarcoma in a human, comprising:

administering a Coenzyme Q10 molecule to a human in need thereof in a dosing regimen such that the permeability of the cell membranes of the human is modulated and treatment or prevention occurs.

14. The method of any one of claims 1-5 and 8-13, further comprising:

upregulating the level of expression of one or more genes selected from the group consisting of LAMA5, PXLDC1, p300 CBP, P53R2, Phosphatidylserine

Receptor, Cytokeratin Peptide 17, Cytokeratin peptide 13, Neurofilament 160 200, Rab5, Filensin, P53R2, MDM2, MSH6, Heat Shock Factor 2, AFX, FLIPg d, JAB 1, Myosine, MEKK4, cRaf pSer621, FKHR FOXO1a, MDM2, Fas Ligand, P53R2, Proteasome 26S subunit 13 (Endophilin B1), Myosin Regulatory Light Chain, hnRNP C1/C2, Ubiquilin 1 (Phosphatase 2A), hnRNP C1/C2, alpha 2-HS glycoprotein (Bos Taurus, cow), beta actin, hnRNP C1/C2, heat shock protein 70kD, microtubule associated protein, beta tubulin, proteasome alpha 3, ATP dependent helicase II, eukaryotic translation elongation factor 1 delta, heat shock protein 27kD, eukaryotc translation elongation factor 1 beta 2, Similar to HSPC-300, ER lipid raft associated 2 isoform 1 (beta actin), Dismutase Cu/Zn Superoxide, and signal sequence receptor 1 delta, ADRB, CEACAM1, DUSP4, FOXC2, FOXP3, GCGR, GPD1, HMOX1, IL4R, INPPL1, IRS2 and VEGFA, putative c-myc-responsive isoform 1, PDK 1, Caspase 12, Phospholipase D1, P34 cdc2, P53 BP1, BTK, ASC2, BUBR1, ARTS, PCAF, Raf1, MSK1, SNAP25, APRIL, DAPK, RAIDD, HAT1, PSF, HDAC1, Rad17, Surviving, SLIPR, MAG13, Caspase 10, Crk2, Cdc 6, P21 WAF 1 Cip 1, ASPP 1, HDAC 4, Cyclin B1, CD 40, GAD 65, TAP, Par4 (prostate apoptosis response 4), and MRP1;
and/or

downregulating the level of expression of one or more genes selected from the group consisting of ANGPTL3, CCL2, CDH5, CXCL1, CXCL3, PRMT3, HDAC2, Nitric Oxide Synthase bNOS, Acetyl phospho Histone H3 AL9 S10, MTA 2, Glutamic Acid Decarboxylase GAD65 67, KSR, HDAC4, BOB1 OBF1, a1Syntrophin, BAP1, Importina 57, α E-Catenin, Grb2, Bax, Proteasome 26S subunit 13 (Endophilin B1), Actin-like 6A (Eukaryotic Initiation Factor 4All), Nuclear Chloride Channel protein, Proteasome 26S subunit, Dismutase Cu/Zn Superoxide, Translin-associated factor X, Arsenite translocating ATPase (Spermine synthetase), ribosomal protein SA, dCTP pyrophosphatase 1, proteasome beta 3, proteasome beta 4, acid phosphatase 1, diazepam binding inhibitor, ribosomal proten P2 (RPLP2); histone H2A, microtubule associated protein, proteasome alpha 3, eukaryotic translation elongation factor 1 delta, lamin B1, SMT 3 suppressor of mif two 3 homolog 2, heat shock protein 27kD, hnRNP C1/C2, eukaryotc translation elongation factor 1 beta 2, Similar to HSPC-300, DNA directed DNA polymerase epislon 3 (canopy 2 homolog), Angiotensin-converting enzyme (ACE), Caspase 3, GARS, Matrix Metalloproteinase 6 (MMP-6), Neurolysin (NLN)-

Catalytic Domain, Neurolysin (NLN), MDC1, Laminin2 a2, bCatenin, FXR2, AnnexinV, SMAC Diablo, MBNL1, DImethyl Histone h3, Growth factor independence 1, U2AF65, mTOR, E2F2, Kaiso, Glycogen Synthase Kinase 3, ATF2, HDRP MITR, Neurabin I, AP1, and Apaf1.

15. The method of claim 12 or 13, wherein the treatment occurs via an interaction of said Coenzyme Q10 molecule with a gene selected from the group consisting of ANGPTL3, CCL2, CDH5, CXCL1, CXCL3, PRMT3, HDAC2, Nitric Oxide Synthase bNOS, Acetyl phospho Histone H3 AL9 S10, MTA 2, Glutamic Acid Decarboxylase GAD65 67, KSR, HDAC4, BOB1 OBF1, a1Syntrophin, BAP1, Importina 57, α E-Catenin, Grb2, Bax, Proteasome 26S subunit 13 (Endophilin B1), Actin-like 6A (Eukaryotic Initiation Factor 4All), Nuclear Chloride Channel protein, Proteasome 26S subunit, Dismutase Cu/Zn Superoxide, Translin-associated factor X, Arsenite translocating ATPase (Spermine synthetase), ribosomal protein SA, dCTP pyrophosphatase 1, proteasome beta 3, proteasome beta 4, acid phosphatase 1, diazepam binding inhibitor, alpha 2-HS glycoprotein (Bos Taurus, cow), ribosomal proten P2 (RPLP2); histone H2A, microtubule associated protein, proteasome alpha 3, eukaryotic translation elongation factor 1 delta, lamin B1, SMT 3 suppressor of mif two 3 homolog 2, heat shock protein 27kD, hnRNP C1/C2, eukaryotc translation elongation factor 1 beta 2, Similar to HSPC-300, DNA directed DNA polymerase epislon 3; (canopy 2 homolog), LAMA5, PXLDC1, p300 CBP, P53R2, Phosphatidylserine Receptor, Cytokeratin Peptide 17, Cytokeratin peptide 13, Neurofilament 160 200, Rab5, Filensin, P53R2, MDM2, MSH6, Heat Shock Factor 2, AFX, FLIPg d, JAB 1, Myosine, MEKK4, cRaf pSer621, FKHR FOXO1a, MDM2, Fas Ligand, P53R2, Myosin Regulatory Light Chain, hnRNP C1/C2, Ubiquilin 1 (Phosphatase 2A), hnRNP C1/C2, alpha 2-HS glycoprotein (Bos Taurus, cow), beta actin, hnRNP C1/C2, heat shock protein 70kD, beta tubulin, ATP dependent helicase II, eukaryotc translation elongation factor 1 beta 2, ER lipid raft associated 2 isoform 1 (beta actin), signal sequence receptor 1 delta, Eukaryotic translation initiation factor 3, subunit 3 gamma, Bilverdin reductase A (Transaldolase 1), Keratin 1,10 (Parathymosin), GST omega 1, chain B Dopamine Quinone Conjugation to Dj-1, Proteasome Activator Reg (alpha), T-complex protein 1 isoform A, Chain A Tapasin ERP57 (Chaperonin containing TCP1), Ubiquitin activating

enzyme E1; Alanyl-tRNA synthetase, Dynactin 1, Heat shock protein 60kd, Beta Actin, Spermidine synthase (Beta Actin), Heat Shock protein 70kd, retinoblastoma binding protein 4 isoform A, TAR DNA binding protein, eukaryotic translation elongation factor 1 beta 2, chaperonin containing TCP1, subunit 3, cytoplasmic dynein IC-2, Angiotensin-converting enzyme (ACE), Caspase 3, GARS, Matrix Metalloproteinase 6 (MMP-6), Neurolysin (NLN)-Catalytic Domain, and Neurolysin (NLN), ADRB, CEACAM1, DUSP4, FOXC2, FOXP3, GCGR, GPD1, HMOX1, IL4R, INPPL1, IRS2, VEGFA, putative c-myc-responsive isoform 1, PDK 1, Caspase 12, Phospholipase D1, P34 cdc2, P53 BP1, BTK, ASC2, BUBR1, ARTS, PCAF, Raf1, MSK1, SNAP25, APRIL, DAPK, RAIDD, HAT1, PSF, HDAC1, Rad17, Surviving, SLIPR, MAG13, Caspase 10, Crk2, Cdc 6, P21 WAF 1 Cip 1, ASPP 1, HDAC 4, Cyclin B1, CD 40, GAD 65, TAP, Par4 (prostate apoptosis response 4), MRP1, MDC1, Laminin2 a2, bCatenin, FXR2, AnnexinV, SMAC Diablo, MBNL1, DImethyl Histone h3, Growth factor independence 1, U2AF65, mTOR, E2F2, Kaiso, Glycogen Synthase Kinase 3, ATF2, HDRP MITR, Neurabin I, AP1, and Apaf1.

16. The method of any one of claims 1-15, further comprising a treatment regimen selected from the group consisting of surgery, radiation, hormone therapy, antibody therapy, therapy with growth factors, cytokines, chemotherapy, and allogenic stem cell therapy.

17. A method for assessing the efficacy of a therapy for treating a sarcoma in a subject, the method comprising:

comparing the level of expression of a marker present in a first sample obtained from the subject prior to administering at least a portion of the treatment regimen to the subject, wherein the marker is selected from the group consisting of the markers listed in Tables 2-9; and

the level of expression of the marker present in a second sample obtained from the subject following administration of at least a portion of the treatment regimen,

wherein a modulation in the level of expression of the marker in the second sample as compared to the first sample is an indication that the therapy is efficacious for treating the sarcoma in the subject.

18. A method of assessing whether a subject is afflicted with a sarcoma, the method comprising:

determining the level of expression of a marker present in a biological sample obtained from the subject, wherein the marker is selected from the group consisting of the markers listed in Tables 2-9; and

comparing the level of expression of the marker present in the biological sample obtained from the subject with the level of expression of the marker present in a control sample, wherein a modulation in the level of expression of the marker in the biological sample obtained from the subject relative to the level of expression of the marker in the control sample is an indication that the subject is afflicted with a sarcoma, thereby assessing whether the subject is afflicted with a sarcoma.

19. A method of prognosing whether a subject is predisposed to developing a sarcoma, the method comprising:

determining the level of expression of a marker present in a biological sample obtained from the subject, wherein the marker is selected from the group consisting of the markers listed in Tables 2-9; and

comparing the level of expression of the marker present in the biological sample obtained from the subject with the level of expression of the marker present in a control sample, wherein a modulation in the level of expression of the marker in the biological sample obtained from the subject relative to the level of expression of the marker in the control sample is an indication that the subject is predisposed to developing a sarcoma, thereby prognosing whether the subject is predisposed to developing a sarcoma.

20. A method of prognosing the recurrence of a sarcoma in a subject, the method comprising:

determining the level of expression of a marker present in a biological sample obtained from the subject, wherein the marker is selected from the group consisting of the markers listed in Tables 2-9; and

comparing the level of expression of the marker present in the biological sample obtained from the subject with the level of expression of the marker present in a control sample, wherein a modulation in the level of expression of the marker in the biological sample obtained from the subject relative to the level of expression of the marker in the control sample is an indication of the recurrence of the sarcoma, thereby prognosing the recurrence of a sarcoma in the subject.

21. A method of prognosing the survival of a subject with a sarcoma, the method comprising:

determining the level of expression of a marker present in a biological sample obtained from the subject, wherein the marker is selected from the group consisting of the markers listed in Tables 2-9; and

comparing the level of expression of the marker present in the biological sample obtained from the subject with the level of expression of the marker present in a control sample, wherein a modulation in the level of expression of the marker in the biological sample obtained from the subject relative to the level of expression of the marker in the control sample is an indication of survival of the subject, thereby prognosing survival of the subject with the sarcoma.

22. A method of monitoring the progression of a sarcoma in a subject, the method comprising:

comparing, the level of expression of a marker present in a first sample obtained from the subject prior to administering at least a portion of a treatment regimen to the subject and the level of expression of the marker present in a second sample obtained from the subject following administration of at least a portion of the treatment regimen, wherein the marker is selected from the group consisting of the markers listed in Tables 2-9, thereby monitoring the progression of the sarcoma in the subject.

23. A method of identifying a compound for treating a sarcoma in a subject, the method comprising:

obtaining a biological sample from the subject;

contacting the biological sample with a test compound;

determining the level of expression of one or more markers present in the biological sample obtained from the subject, wherein the marker is selected from the group consisting of the markers listed in Tables 2-9 with a positive fold change and/or with a negative fold change;

comparing the level of expression of the one of more markers in the biological sample with an appropriate control; and

selecting a test compound that decreases the level of expression of the one or more markers with a negative fold change present in the biological sample and/or increases the level of expression of the one or more markers with a positive fold change present in the biological sample, thereby identifying a compound for treating the sarcoma in a subject.

24. The method of any one of claims 17-23, wherein the sarcoma is a type of sarcoma in Ewing's family of tumors.

25. The method of claim 24, wherein the type of sarcoma in Ewing's family of tumors is Ewing's sarcoma.

26. The method of any one of claims 17-23, wherein the sample comprises a fluid obtained from the subject.

27. The method of claim 26, wherein the fluid is selected from the group consisting of blood fluids, vomit, saliva, lymph, cystic fluid, urine, fluids collected by bronchial lavage, fluids collected by peritoneal rinsing, and gynecological fluids.

28. The method of claim 27, wherein the sample is a blood sample or a component thereof.

29. The method of any one of claims 17-23, wherein the sample comprises a tissue or component thereof obtained from the subject.

30. The method of claim 29, wherein the tissue is selected from the group consisting of bone, connective tissue, cartilage, lung, liver, kidney, muscle tissue, heart, pancreas, and skin.

31. The method of any one of claims 17-23, wherein the subject is a human.

32. The method of any one of claims 17-23, wherein the level of expression of the marker in the biological sample is determined by assaying a transcribed polynucleotide or a portion thereof in the sample.

33. The method of claim 32, wherein assaying the transcribed polynucleotide comprises amplifying the transcribed polynucleotide.

34. The method of any one of claims 17-23, wherein the level of expression of the marker in the subject sample is determined by assaying a protein or a portion thereof in the sample.

35. The method of claim 34, wherein the protein is assayed using a reagent which specifically binds with the protein.

36. The method of any one of claims 17-23, wherein the level of expression of the marker in the sample is determined using a technique selected from the group consisting of polymerase chain reaction (PCR) amplification reaction, reverse-transcriptase PCR analysis, single-strand conformation polymorphism analysis (SSCP), mismatch cleavage detection, heteroduplex analysis, Southern blot analysis, Northern blot analysis, Western blot analysis, in situ hybridization, array analysis, deoxyribonucleic acid sequencing, restriction fragment length polymorphism analysis, and combinations or sub-combinations thereof, of said sample.

37. The method of any one of claims 17-23, wherein the level of expression of the marker in the sample is determined using a technique selected from the group consisting

of immunohistochemistry, immunocytochemistry, flow cytometry, ELISA and mass spectrometry.

38. The method of any one of claims 17-23, wherein the marker is a marker selected from the group consisting of ANGPTL3, CCL2, CDH5, CXCL1, CXCL3, PRMT3, HDAC2, Nitric Oxide Synthase bNOS, Acetyl phospho Histone H3 AL9 S10, MTA 2, Glutamic Acid Decarboxylase GAD65 67, KSR, HDAC4, BOB1 OBF1, a1Syntrophin, BAP1, Importina 57, α E-Catenin, Grb2, Bax, Proteasome 26S subunit 13 (Endophilin B1), Actin-like 6A (Eukaryotic Initiation Factor 4All), Nuclear Chloride Channel protein, Proteasome 26S subunit, Dismutase Cu/Zn Superoxide, Translin-associated factor X, Arsenite translocating ATPase (Spermine synthetase), ribosomal protein SA, dCTP pyrophosphatase 1, proteasome beta 3, proteasome beta 4, acid phosphatase 1, diazepam binding inhibitor, alpha 2-HS glycoprotein (Bos Taurus, cow), ribosomal proten P2 (RPLP2); histone H2A, microtubule associated protein, proteasome alpha 3, eukaryotic translation elongation factor 1 delta, lamin B1, SMT 3 suppressor of mif two 3 homolog 2, heat shock protein 27kD, hnRNP C1/C2, eukaryotc translation elongation factor 1 beta 2, Similar to HSPC-300, DNA directed DNA polymerase epislon 3; (canopy 2 homolog), LAMA5, PXLDC1, p300 CBP, P53R2, Phosphatidylserine Receptor, Cytokeratin Peptide 17, Cytokeratin peptide 13, Neurofilament 160 200, Rab5, Filensin, P53R2, MDM2, MSH6, Heat Shock Factor 2, AFX, FLIPg d, JAB 1, Myosine, MEKK4, cRaf pSer621, FKHR FOXO1a, MDM2, Fas Ligand, P53R2, Myosin Regulatory Light Chain, hnRNP C1/C2, Ubiquilin 1 (Phosphatase 2A), hnRNP C1/C2, alpha 2-HS glycoprotein (Bos Taurus, cow), beta actin, hnRNP C1/C2, heat shock protein 70kD, beta tubulin, ATP dependent helicase II, eukaryotc translation elongation factor 1 beta 2, ER lipid raft associated 2 isoform 1 (beta actin), signal sequence receptor 1 delta, Eukaryotic translation initiation factor 3, subunit 3 gamma, Bilverdin reductase A (Transaldolase 1), Keratin 1,10 (Parathymosin), GST omega 1, chain B Dopamine Quinone Conjugation to Dj-1, Proteasome Activator Reg (alpha), T-complex protein 1 isoform A, Chain A Tapasin ERP57 (Chaperonin containing TCP1), Ubiquitin activating enzyme E1; Alanyl-tRNA synthetase, Dynactin 1, Heat shock protein 60kd, Beta Actin, Spermidine synthase (Beta Actin), Heat Shock protein 70kd, retinoblastoma binding protein 4 isoform A, TAR DNA binding protein, eukaryotic

translation elongation factor 1 beta 2, chaperonin containing TCP1, subunit 3, cytoplasmic dynein IC-2, Angiotensin-converting enzyme (ACE), Caspase 3, GARS, Matrix Metalloproteinase 6 (MMP-6), Neurolysin (NLN)-Catalytic Domain, and Neurolysin (NLN), ADRB, CEACAM1, DUSP4, FOXC2, FOXP3, GCGR, GPD1, HMOX1, IL4R, INPPL1, IRS2, VEGFA, putative c-myc-responsive isoform 1, PDK 1, Caspase 12, Phospholipase D1, P34 cdc2, P53 BP1, BTK, ASC2, BUBR1, ARTS, PCAF, Raf1, MSK1, SNAP25, APRIL, DAPK, RAIDD, HAT1, PSF, HDAC1, Rad17, Surviving, SLIPR, MAG13, Caspase 10, Crk2, Cdc 6, P21 WAF 1 Cip 1, ASPP 1, HDAC 4, Cyclin B1, CD 40, GAD 65, TAP, Par4 (prostate apoptosis response 4), MRP1, MDC1, Laminin2 a2, bCatenin, FXR2, AnnexinV, SMAC Diablo, MBNL1, DImethyl Histone h3, Growth factor independence 1, U2AF65, mTOR, E2F2, Kaiso, Glycogen Synthase Kinase 3, ATF2, HDRP MITR, Neurabin I, AP1, and Apaf1.

39. The method of any one of claims 17-23, wherein the level of expression of a plurality of markers is determined.

40. The method of any one of claims 17-23, wherein the subject is being treated with a therapy selected from the group consisting of an environmental influencer compound, surgery, radiation, hormone therapy, antibody therapy, therapy with growth factors, cytokines, chemotherapy, allogenic stem cell therapy.

41. The method of claim 40, wherein the environmental influencer compound is a Coenzyme Q10 molecule.

42. A kit for assessing the efficacy of a therapy for treating a sarcoma, the kit comprising reagents for determining the level of expression of at least one marker selected from the group consisting of the markers listed in Tables 2-9 and instructions for use of the kit to assess the efficacy of the therapy for treating the sarcoma.

43. A kit for assessing whether a subject is afflicted with a sarcoma, the kit comprising reagents for determining the level of expression of at least one marker

selected from the group consisting of the markers listed in Tables 2-9 and instructions for use of the kit to assess whether the subject is afflicted with the sarcoma.

44. A kit for prognosing whether a subject is predisposed to developing a sarcoma, the kit comprising reagents for determining the level of expression of at least one marker selected from the group consisting of the markers listed in Tables 2-9 and instructions for use of the kit to prognose whether the subject is predisposed to developing the sarcoma.

45. A kit for prognosing the recurrence of a sarcoma in a subject, the kit comprising reagents for assessing the level of expression of at least one marker selected from the group consisting of the markers listed in Tables 2-9 and instructions for use of the kit to prognose the recurrence of the sarcoma.

46. A kit for prognosing the recurrence of a sarcoma, the kit comprising reagents for determining the level of expression of at least one marker selected from the group consisting of the markers listed in Tables 2-9 and instructions for use of the kit to prognose the recurrence of the sarcoma.

47. A kit for prognosing the survival of a subject with a sarcoma, the kit comprising reagents for determining the level of expression of at least one marker selected from the group consisting of the markers listed in Tables 2-9 and instructions for use of the kit to prognose the survival of the subject with the sarcoma.

48. A kit for monitoring the progression of a sarcoma in a subject, the kit comprising reagents for determining the level of expression of at least one marker selected from the group consisting of the markers listed in Tables 2-9 and instructions for use of the kit to prognose the progression of the sarcoma in a subject.

49. The kit of any one of claims 42-48, further comprising means for obtaining a biological sample from a subject.

50. The kit of any one of claims 42-48; further comprising a control sample.

51. The kit of any one of claims 42-48, wherein the means for determining the level of expression of at least one marker comprises means for assaying a transcribed polynucleotide or a portion thereof in the sample.

52. The kit of any one of claims 42-48, wherein the means for determining the level of expression of at least one marker comprises means for assaying a protein or a portion thereof in the sample.

53. The kit of any one of claims 42-48, further comprising an environmental influencer compound.

54. The kit of any one of claims 42-48, wherein the kit comprises reagents for determining the level of expression of a plurality of markers.

What is claimed:

1. A method for assessing the efficacy of a therapy for treating a sarcoma in a subject, the method comprising:

comparing the level of expression of a marker present in a first sample obtained from the subject prior to administering at least a portion of the therapy to the subject, wherein the marker is selected from the group consisting of LAMA5, PXLDC1, p300 CBP, P53R2, Phosphatidylserine Receptor, Cytokeratin Peptide 17, Cytokeratin peptide 13, Neurofilament 160, Neurofilament 200, Rab5, Filensin, MSH6, Heat Shock Factor 2, AFX, FLIPg d, JAB 1, Myosine, MEKK4, cRaf pSer621, FKHR FOXO1a, MDM2, Fas Ligand, Myosin Regulatory Light Chain, Ubiquilin 1 (Phosphatase 2A), alpha 2-HS glycoprotein, beta actin, heat shock protein 70kD, beta tubulin, ATP dependent helicase II, ER lipid raft associated 2 isoform 1 (beta actin), signal sequence receptor 1 delta, ADRB, CEACAM1, DUSP4, FOXC2, FOXP3, GCGR, GPD1, HMOX1, IL4R, INPPL1, IRS2 and VEGFA, putative c-myc-responsive isoform 1, PDK 1, Caspase 12, Phospholipase D1, P34 cdc2, P53 BP1, BTK, ASC2, BUBR1, ARTS, PCAF, Raf1, MSK1, SNAP25, APRIL, DAPK, RAIDD, HAT1, PSF, HDAC1, Rad17, Survivin, SLIPR, MAG13, Caspase 10, Crk2, Cdc 6, P21 WAF 1 Cip 1, ASPP 1, HDAC 4, Cyclin B1, CD 40, GAD 65, TAP, Par4 (prostate apoptosis response 4), MRP1; ANGPTL3, CCL2, CDH5, CXCL1, CXCL3, PRMT3, HDAC2, Nitric Oxide Synthase bNOS, Acetyl phospho Histone H3 AL9 S10, MTA 2, Glutamic Acid Decarboxylase GAD65 67, KSR, HDAC4, BOB1 OBF1, a1Syntrophin, BAP1, Importin-α5, Importin-α7, αE-Catenin, Grb2, Bax, Actin-like 6A, Eukaryotic Initiation Factor 4All, Nuclear Chloride Channel protein, Proteasome 26S subunit, Translin-associated factor X, Arsenite translocating ATPase, Spermine synthetase, ribosomal protein SA, dCTP pyrophosphatase 1, proteasome beta 3, proteasome beta 4, acid phosphatase 1, diazepam binding inhibitor, ribosomal protein P2 (RPLP2); histone H2A, lamin B1, SMT 3 suppressor of mif two 3 homolog 2, DNA directed DNA polymerase epsilon 3 (canopy 2 homolog), Angiotensin-converting enzyme (ACE), Caspase 3, GARS, Matrix Metalloproteinase 6 (MMP-6), Neurolysin (NLN)-Catalytic Domain, Neurolysin (NLN), MDC1, Laminin2 a2, bCatenin, FXR2, AnnexinV, SMAC Diablo, MBNL1, Dimethyl Histone h3, Growth factor independent 1, U2AF65, mTOR, E2F2, Kaiso, Glycogen Synthase Kinase 3, ATF2, HDRP MITR, Neurabin I, AP1, and Apaf1; and

the level of expression of the marker present in a second sample obtained from the subject following administration of at least a portion of the therapy,

wherein a higher level of expression of a marker selected from the group consisting of:

(a) LAMA5, PXLDC1, p300 CBP, P53R2, Phosphatidylserine Receptor, Cytokeratin Peptide 17, Cytokeratin peptide 13, Neurofilament 160, Neurofilament 200, Rab5, Filensin,

MSH6, Heat Shock Factor 2, AFX, FLIPg d, JAB 1, Myosine, MEKK4, cRaf pSer621, FKHR FOXO1a, MDM2, Fas Ligand, Myosin Regulatory Light Chain, Ubiquilin 1 (Phosphatase 2A), alpha 2-HS glycoprotein, beta actin, heat shock protein 70kD, beta tubulin, ATP dependent helicase II, ER lipid raft associated 2 isoform 1 (beta actin), signal sequence receptor 1 delta, ADRB, CEACAM1, DUSP4, FOXC2, FOXP3, GCGR, GPD1, HMOX1, IL4R, INPPL1, IRS2 and VEGFA, putative c-myc-responsive isoform 1, PDK 1, Caspase 12, Phospholipase D1, P34 cdc2, P53 BP1, BTK, ASC2, BUBR1, ARTS, PCAF, Raf1, MSK1, SNAP25, APRIL, DAPK, RAIDD, HAT1, PSF, HDAC1, Rad17, Survivin, SLIPR, MAG13, Caspase 10, Crk2, Cdc 6, P21 WAF 1 Cip 1, ASPP 1, HDAC 4, Cyclin B1, CD 40, GAD 65, TAP, Par4 (prostate apoptosis response 4), and MRP1;

and/or

a lower level of expression of a marker selected from the group consisting of

(b) ANGPTL3, CCL2, CDH5, CXCL1, CXCL3, PRMT3, HDAC2, Nitric Oxide Synthase bNOS, Acetyl phospho Histone H3 AL9 S10, MTA 2, Glutamic Acid Decarboxylase GAD65 67, KSR, HDAC4, BOB1 OBF1, a1Syntrophin, BAP1, Importin-α 5, Importin-α 7, α E-Catenin, Grb2, Bax, Actin-like 6A, Eukaryotic Initiation Factor 4All, Nuclear Chloride Channel protein, Proteasome 26S subunit, Translin-associated factor X, Arsenite translocating ATPase, Spermine synthetase, ribosomal protein SA, dCTP pyrophosphatase 1, proteasome beta 3, proteasome beta 4, acid phosphatase 1, diazepam binding inhibitor, ribosomal protein P2 (RPLP2); histone H2A, lamin B1, SMT 3 suppressor of mif two 3 homolog 2, DNA directed DNA polymerase epsilon 3 (canopy 2 homolog), Angiotensin-converting enzyme (ACE), Caspase 3, GARS, Matrix Metalloproteinase 6 (MMP-6), Neurolysin (NLN)-Catalytic Domain, Neurolysin (NLN), MDC1, Laminin2 a2, bCatenin, FXR2, AnnexinV, SMAC Diablo, MBNL1, Dimethyl Histone h3, Growth factor independent 1, U2AF65, mTOR, E2F2, Kaiso, Glycogen Synthase Kinase 3, ATF2, HDRP MITR, Neurabin I, AP1, and Apaf1

in the second sample as compared to the first sample is an indication that the therapy is efficacious for treating the sarcoma in the subject.

2. A method of assessing whether a subject is afflicted with a sarcoma, the method comprising:

determining the level of expression of a marker present in a biological sample obtained from the subject, wherein the marker is selected from the group consisting of LAMA5, PXLDC1, p300 CBP, P53R2, Phosphatidylserine Receptor, Cytokeratin Peptide 17, Cytokeratin peptide 13, Neurofilament 160, Neurofilament 200, Rab5, Filensin, MSH6, Heat Shock Factor 2, AFX, FLIPg d, JAB 1, Myosine, MEKK4, cRaf pSer621, FKHR FOXO1a, MDM2, Fas Ligand, Myosin Regulatory Light Chain, Ubiquilin 1 (Phosphatase 2A), alpha 2-HS glycoprotein, beta actin, heat shock protein 70kD, beta tubulin, ATP dependent helicase II, ER lipid raft associated 2 isoform 1 (beta actin), signal sequence receptor 1 delta, ADRB, CEACAM1, DUSP4, FOXC2, FOXP3, GCGR, GPD1, HMOX1, IL4R, INPPL1, IRS2 and VEGFA, putative c-myc-responsive isoform 1, PDK 1, Caspase 12, Phospholipase D1, P34 cdc2, P53 BP1, BTK, ASC2, BUBR1, ARTS, PCAF, Raf1, MSK1, SNAP25, APRIL, DAPK, RAIDD, HAT1, PSF, HDAC1, Rad17, Survivin, SLIPR, MAG13, Caspase 10, Crk2, Cdc 6, P21 WAF 1 Cip 1, ASPP 1, HDAC 4, Cyclin B1, CD 40, GAD 65, TAP, Par4 (prostate apoptosis response 4), MRP1; ANGPTL3, CCL2, CDH5, CXCL1, CXCL3, PRMT3, HDAC2, Nitric Oxide Synthase bNOS, Acetyl phospho Histone H3 AL9 S10, MTA 2, Glutamic Acid Decarboxylase GAD65 67, KSR, HDAC4, BOB1 OBF1, a1Syntrophin, BAP1, Importin-α5, Importin-α7, αE-Catenin, Grb2, Bax, Actin-like 6A, Eukaryotic Initiation Factor 4All, Nuclear Chloride Channel protein, Proteasome 26S subunit, Translin-associated factor X, Arsenite translocating ATPase, Spermine synthetase, ribosomal protein SA, dCTP pyrophosphatase 1, proteasome beta 3, proteasome beta 4, acid phosphatase 1, diazepam binding inhibitor, ribosomal protein P2 (RPLP2); histone H2A, lamin B1, SMT 3 suppressor of mif two 3 homolog 2, DNA directed DNA polymerase epsilon 3 (canopy 2 homolog), Angiotensin-converting enzyme (ACE), Caspase 3, GARS, Matrix Metalloproteinase 6 (MMP-6), Neurolysin (NLN)-Catalytic Domain, Neurolysin (NLN), MDC1, Laminin2 a2, bCatenin, FXR2, AnnexinV, SMAC Diablo, MBNL1, Dimethyl Histone h3, Growth factor independent 1, U2AF65, mTOR, E2F2, Kaiso, Glycogen Synthase Kinase 3, ATF2, HDRP MITR, Neurabin I, AP1, and Apaf1; and

comparing the level of expression of the marker present in the biological sample obtained from the subject with the level of expression of the marker present in a control sample,

wherein a lower level of expression of a marker selected from the group consisting of:

(a) LAMA5, PXLDC1, p300 CBP, P53R2, Phosphatidylserine Receptor, Cytokeratin Peptide 17, Cytokeratin peptide 13, Neurofilament 160, Neurofilament 200, Rab5, Filensin, MSH6, Heat Shock Factor 2, AFX, FLIPg d, JAB 1, Myosine, MEKK4, cRaf pSer621, FKHR FOXO1a, MDM2, Fas Ligand, Myosin Regulatory Light Chain, Ubiquilin 1 (Phosphatase 2A), alpha 2-HS glycoprotein, beta actin, heat shock protein 70kD, beta tubulin, ATP dependent helicase II, ER lipid raft associated 2 isoform 1 (beta actin), signal sequence

receptor 1 delta, ADRB, CEACAM1, DUSP4, FOXC2, FOXP3, GCGR, GPD1, HMOX1, IL4R, INPPL1, IRS2 and VEGFA, putative c-myc-responsive isoform 1, PDK 1, Caspase 12, Phospholipase D1, P34 cdc2, P53 BP1, BTK, ASC2, BUBR1, ARTS, PCAF, Raf1, MSK1, SNAP25, APRIL, DAPK, RAIDD, HAT1, PSF, HDAC1, Rad17, Survivin, SLIPR, MAG13, Caspase 10, Crk2, Cdc 6, P21 WAF 1 Cip 1, ASPP 1, HDAC 4, Cyclin B1, CD 40, GAD 65, TAP, Par4 (prostate apoptosis response 4), and MRP1;

and/or

a higher level of expression of a marker selected from the group consisting of

(b) ANGPTL3, CCL2, CDH5, CXCL1, CXCL3, PRMT3, HDAC2, Nitric Oxide Synthase bNOS, Acetyl phospho Histone H3 AL9 S10, MTA 2, Glutamic Acid Decarboxylase GAD65 67, KSR, HDAC4, BOB1 OBF1, a1Syntrophin, BAP1, Importin-α5, Importin-α7, αE-Catenin, Grb2, Bax, Actin-like 6A, Eukaryotic Initiation Factor 4All, Nuclear Chloride Channel protein, Proteasome 26S subunit, Translin-associated factor X, Arsenite translocating ATPase, Spermine synthetase, ribosomal protein SA, dCTP pyrophosphatase 1, proteasome beta 3, proteasome beta 4, acid phosphatase 1, diazepam binding inhibitor, ribosomal protein P2 (RPLP2); histone H2A, lamin B1, SMT 3 suppressor of mif two 3 homolog 2, DNA directed DNA polymerase epsilon 3 (canopy 2 homolog), Angiotensin-converting enzyme (ACE), Caspase 3, GARS, Matrix Metalloproteinase 6 (MMP-6), Neurolysin (NLN)-Catalytic Domain, Neurolysin (NLN), MDC1, Laminin2 a2, bCatenin, FXR2, AnnexinV, SMAC Diablo, MBNL1, Dimethyl Histone h3, Growth factor independent 1, U2AF65, mTOR, E2F2, Kaiso, Glycogen Synthase Kinase 3, ATF2, HDRP MITR, Neurabin I, AP1, and Apaf1

in the biological sample obtained from the subject relative to the level of expression of the marker in the control sample is an indication that the subject is afflicted with a sarcoma, thereby assessing whether the subject is afflicted with a sarcoma.

3. A method of prognosing whether a subject is predisposed to developing a sarcoma, the method comprising:

determining the level of expression of a marker present in a biological sample obtained from the subject, wherein the marker is selected from the group consisting of LAMA5, PXLDC1, p300 CBP, P53R2, Phosphatidylserine Receptor, Cytokeratin Peptide 17, Cytokeratin peptide 13,

Neurofilament 160, Neurofilament 200, Rab5, Filensin, MSH6, Heat Shock Factor 2, AFX, FLIPg d, JAB 1, Myosine, MEKK4, cRaf pSer621, FKHR FOXO1a, MDM2, Fas Ligand, Myosin Regulatory Light Chain, Ubiquilin 1 (Phosphatase 2A), alpha 2-HS glycoprotein, beta actin, heat shock protein 70kD, beta tubulin, ATP dependent helicase II, ER lipid raft associated 2 isoform 1 (beta actin), signal sequence receptor 1 delta, ADRB, CEACAM1, DUSP4, FOXC2, FOXP3, GCGR, GPD1, HMOX1, IL4R, INPPL1, IRS2 and VEGFA, putative c-myc-responsive isoform 1, PDK 1, Caspase 12, Phospholipase D1, P34 cdc2, P53 BP1, BTK, ASC2, BUBR1, ARTS, PCAF, Raf1, MSK1, SNAP25, APRIL, DAPK, RAIDD, HAT1, PSF, HDAC1, Rad17, Survivin, SLIPR, MAG13, Caspase 10, Crk2, Cdc 6, P21 WAF 1 Cip 1, ASPP 1, HDAC 4, Cyclin B1, CD 40, GAD 65, TAP, Par4 (prostate apoptosis response 4), MRP1; ANGPTL3, CCL2, CDH5, CXCL1, CXCL3, PRMT3, HDAC2, Nitric Oxide Synthase bNOS, Acetyl phospho Histone H3 AL9 S10, MTA 2, Glutamic Acid Decarboxylase GAD65 67, KSR, HDAC4, BOB1 OBF1, a1Syntrophin, BAP1, Importin-α5, Importin-α7, αE-Catenin, Grb2, Bax, Actin-like 6A, Eukaryotic Initiation Factor 4All, Nuclear Chloride Channel protein, Proteasome 26S subunit, Translin-associated factor X, Arsenite translocating ATPase, Spermine synthetase, ribosomal protein SA, dCTP pyrophosphatase 1, proteasome beta 3, proteasome beta 4, acid phosphatase 1, diazepam binding inhibitor, ribosomal protein P2 (RPLP2); histone H2A, lamin B1, SMT 3 suppressor of mif two 3 homolog 2, DNA directed DNA polymerase epsilon 3 (canopy 2 homolog), Angiotensin-converting enzyme (ACE), Caspase 3, GARS, Matrix Metalloproteinase 6 (MMP-6), Neurolysin (NLN)-Catalytic Domain, Neurolysin (NLN), MDC1, Laminin2 a2, bCatenin, FXR2, AnnexinV, SMAC Diablo, MBNL1, Dimethyl Histone h3, Growth factor independent 1, U2AF65, mTOR, E2F2, Kaiso, Glycogen Synthase Kinase 3, ATF2, HDRP MITR, Neurabin I, AP1, and Apaf1; and

comparing the level of expression of the marker present in the biological sample obtained from the subject with the level of expression of the marker present in a control sample,

wherein a lower level of expression of a marker selected from the group consisting of:

(a) LAMA5, PXLDC1, p300 CBP, P53R2, Phosphatidylserine Receptor, Cytokeratin Peptide 17, Cytokeratin peptide 13, Neurofilament 160, Neurofilament 200, Rab5, Filensin, MSH6, Heat Shock Factor 2, AFX, FLIPg d, JAB 1, Myosine, MEKK4, cRaf pSer621, FKHR FOXO1a, MDM2, Fas Ligand, Myosin Regulatory Light Chain, Ubiquilin 1 (Phosphatase 2A), alpha 2-HS glycoprotein, beta actin, heat shock protein 70kD, beta tubulin, ATP dependent helicase II, ER lipid raft associated 2 isoform 1 (beta actin), signal sequence receptor 1 delta, ADRB, CEACAM1, DUSP4, FOXC2, FOXP3, GCGR, GPD1, HMOX1, IL4R, INPPL1, IRS2 and VEGFA, putative c-myc-responsive isoform 1, PDK 1, Caspase 12, Phospholipase D1, P34 cdc2, P53 BP1, BTK, ASC2, BUBR1, ARTS, PCAF, Raf1, MSK1,

SNAP25, APRIL, DAPK, RAIDD, HAT1, PSF, HDAC1, Rad17, Survivin, SLIPR, MAG13, Caspase 10, Crk2, Cdc 6, P21 WAF 1 Cip 1, ASPP 1, HDAC 4, Cyclin B1, CD 40, GAD 65, TAP, Par4 (prostate apoptosis response 4), and MRP1;

and/or

a higher level of expression of a marker selected from the group consisting of

(b) ANGPTL3, CCL2, CDH5, CXCL1, CXCL3, PRMT3, HDAC2, Nitric Oxide Synthase bNOS, Acetyl phospho Histone H3 AL9 S10, MTA 2, Glutamic Acid Decarboxylase GAD65 67, KSR, HDAC4, BOB1 OBF1, a1Syntrophin, BAP1, Importin-α5, Importin-α7, αE-Catenin, Grb2, Bax, Actin-like 6A, Eukaryotic Initiation Factor 4All, Nuclear Chloride Channel protein, Proteasome 26S subunit, Translin-associated factor X, Arsenite translocating ATPase, Spermine synthetase, ribosomal protein SA, dCTP pyrophosphatase 1, proteasome beta 3, proteasome beta 4, acid phosphatase 1, diazepam binding inhibitor, ribosomal protein P2 (RPLP2); histone H2A, lamin B1, SMT 3 suppressor of mif two 3 homolog 2, DNA directed DNA polymerase epsilon 3 (canopy 2 homolog), Angiotensin-converting enzyme (ACE), Caspase 3, GARS, Matrix Metalloproteinase 6 (MMP-6), Neurolysin (NLN)-Catalytic Domain, Neurolysin (NLN), MDC1, Laminin2 a2, bCatenin, FXR2, AnnexinV, SMAC Diablo, MBNL1, Dimethyl Histone h3, Growth factor independent 1, U2AF65, mTOR, E2F2, Kaiso, Glycogen Synthase Kinase 3, ATF2, HDRP MITR, Neurabin I, AP1, and Apaf1

in the biological sample obtained from the subject relative to the level of expression of the marker in the control sample is an indication that the subject is predisposed to developing a sarcoma, thereby prognosing whether the subject is predisposed to developing a sarcoma.

4. A method of prognosing the recurrence of a sarcoma in a subject, the method comprising:

determining the level of expression of a marker present in a biological sample obtained from the subject, wherein the marker is selected from the group consisting of LAMA5, PXLDC1, p300 CBP, P53R2, Phosphatidylserine Receptor, Cytokeratin Peptide 17, Cytokeratin peptide 13, Neurofilament 160, Neurofilament 200, Rab5, Filensin, MSH6, Heat Shock Factor 2, AFX, FLIPg d, JAB 1, Myosine, MEKK4, cRaf pSer621, FKHR FOXO1a, MDM2, Fas Ligand, Myosin Regulatory Light Chain, Ubiquilin 1 (Phosphatase 2A), alpha 2-HS glycoprotein, beta actin, heat shock protein 70kD, beta tubulin, ATP dependent helicase II, ER lipid raft associated 2 isoform 1 (beta actin), signal

sequence receptor 1 delta, ADRB, CEACAM1, DUSP4, FOXC2, FOXP3, GCGR, GPD1, HMOX1, IL4R, INPPL1, IRS2 and VEGFA, putative c-myc-responsive isoform 1, PDK 1, Caspase 12, Phospholipase D1, P34 cdc2, P53 BP1, BTK, ASC2, BUBR1, ARTS, PCAF, Raf1, MSK1, SNAP25, APRIL, DAPK, RAIDD, HAT1, PSF, HDAC1, Rad17, Survivin, SLIPR, MAG13, Caspase 10, Crk2, Cdc 6, P21 WAF 1 Cip 1, ASPP 1, HDAC 4, Cyclin B1, CD 40, GAD 65, TAP, Par4 (prostate apoptosis response 4), MRP1; ANGPTL3, CCL2, CDH5, CXCL1, CXCL3, PRMT3, HDAC2, Nitric Oxide Synthase bNOS, Acetyl phospho Histone H3 AL9 S10, MTA 2, Glutamic Acid Decarboxylase GAD65 67, KSR, HDAC4, BOB1 OBF1, a1Syntrophin, BAP1, Importin-α5, Importin-α7, αE-Catenin, Grb2, Bax, Actin-like 6A, Eukaryotic Initiation Factor 4All, Nuclear Chloride Channel protein, Proteasome 26S subunit, Translin-associated factor X, Arsenite translocating ATPase, Spermine synthetase, ribosomal protein SA, dCTP pyrophosphatase 1, proteasome beta 3, proteasome beta 4, acid phosphatase 1, diazepam binding inhibitor, ribosomal protein P2 (RPLP2); histone H2A, lamin B1, SMT 3 suppressor of mif two 3 homolog 2, DNA directed DNA polymerase epsilon 3 (canopy 2 homolog), Angiotensin-converting enzyme (ACE), Caspase 3, GARS, Matrix Metalloproteinase 6 (MMP-6), Neurolysin (NLN)-Catalytic Domain, Neurolysin (NLN), MDC1, Laminin2 a2, bCatenin, FXR2, AnnexinV, SMAC Diablo, MBNL1, Dimethyl Histone h3, Growth factor independent 1, U2AF65, mTOR, E2F2, Kaiso, Glycogen Synthase Kinase 3, ATF2, HDRP MITR, Neurabin I, AP1, and Apaf1; and

comparing the level of expression of the marker present in the biological sample obtained from the subject with the level of expression of the marker present in a control sample,

wherein a lower level of expression of a marker selected from the group consisting of:

(a) LAMA5, PXLDC1, p300 CBP, P53R2, Phosphatidylserine Receptor, Cytokeratin Peptide 17, Cytokeratin peptide 13, Neurofilament 160, Neurofilament 200, Rab5, Filensin, MSH6, Heat Shock Factor 2, AFX, FLIPg d, JAB 1, Myosine, MEKK4, cRaf pSer621, FKHR FOXO1a, MDM2, Fas Ligand, Myosin Regulatory Light Chain, Ubiquilin 1 (Phosphatase 2A), alpha 2-HS glycoprotein, beta actin, heat shock protein 70kD, beta tubulin, ATP dependent helicase II, ER lipid raft associated 2 isoform 1 (beta actin), signal sequence receptor 1 delta, ADRB, CEACAM1, DUSP4, FOXC2, FOXP3, GCGR, GPD1, HMOX1, IL4R, INPPL1, IRS2 and VEGFA, putative c-myc-responsive isoform 1, PDK 1, Caspase 12, Phospholipase D1, P34 cdc2, P53 BP1, BTK, ASC2, BUBR1, ARTS, PCAF, Raf1, MSK1, SNAP25, APRIL, DAPK, RAIDD, HAT1, PSF, HDAC1, Rad17, Survivin, SLIPR, MAG13, Caspase 10, Crk2, Cdc 6, P21 WAF 1 Cip 1, ASPP 1, HDAC 4, Cyclin B1, CD 40, GAD 65, TAP, Par4 (prostate apoptosis response 4), and MRP1;

and/or

a higher level of expression of a marker selected from the group consisting of

(b) ANGPTL3, CCL2, CDH5, CXCL1, CXCL3, PRMT3, HDAC2, Nitric Oxide Synthase bNOS, Acetyl phospho Histone H3 AL9 S10, MTA 2, Glutamic Acid Decarboxylase GAD65 67, KSR, HDAC4, BOB1 OBF1, a1Syntrophin, BAP1, Importin-α5, Importin-α7, αE-Catenin, Grb2, Bax, Actin-like 6A, Eukaryotic Initiation Factor 4All, Nuclear Chloride Channel protein, Proteasome 26S subunit, Translin-associated factor X, Arsenite translocating ATPase, Spermine synthetase, ribosomal protein SA, dCTP pyrophosphatase 1, proteasome beta 3, proteasome beta 4, acid phosphatase 1, diazepam binding inhibitor, ribosomal protein P2 (RPLP2); histone H2A, lamin B1, SMT 3 suppressor of mif two 3 homolog 2, DNA directed DNA polymerase epsilon 3 (canopy 2 homolog), Angiotensin-converting enzyme (ACE), Caspase 3, GARS, Matrix Metalloproteinase 6 (MMP-6), Neurolysin (NLN)-Catalytic Domain, Neurolysin (NLN), MDC1, Laminin2 a2, bCatenin, FXR2, AnnexinV, SMAC Diablo, MBNL1, Dimethyl Histone h3, Growth factor independent 1, U2AF65, mTOR, E2F2, Kaiso, Glycogen Synthase Kinase 3, ATF2, HDRP MITR, Neurabin I, AP1, and Apaf1

in the biological sample obtained from the subject relative to the level of expression of the marker in the control sample is an indication of the recurrence of the sarcoma, thereby prognosing the recurrence of a sarcoma in the subject.

5. A method of prognosing the survival of a subject with a sarcoma, the method comprising:

determining the level of expression of a marker present in a biological sample obtained from the subject, wherein the marker is selected from the group consisting of LAMA5, PXLDC1, p300 CBP, P53R2, Phosphatidylserine Receptor, Cytokeratin Peptide 17, Cytokeratin peptide 13, Neurofilament 160, Neurofilament 200, Rab5, Filensin, MSH6, Heat Shock Factor 2, AFX, FLIPg d, JAB 1, Myosine, MEKK4, cRaf pSer621, FKHR FOXO1a, MDM2, Fas Ligand, Myosin Regulatory Light Chain, Ubiquilin 1 (Phosphatase 2A), alpha 2-HS glycoprotein, beta actin, heat shock protein 70kD, beta tubulin, ATP dependent helicase II, ER lipid raft associated 2 isoform 1 (beta actin), signal sequence receptor 1 delta, ADRB, CEACAM1, DUSP4, FOXC2, FOXP3, GCGR, GPD1, HMOX1, IL4R, INPPL1, IRS2 and VEGFA, putative c-myc-responsive isoform 1, PDK 1, Caspase 12, Phospholipase D1, P34 cdc2, P53 BP1, BTK, ASC2, BUBR1, ARTS, PCAF, Raf1, MSK1, SNAP25, APRIL, DAPK, RAIDD, HAT1, PSF, HDAC1, Rad17, Survivin, SLIPR, MAG13, Caspase 10, Crk2,

Cdc 6, P21 WAF 1 Cip 1, ASPP 1, HDAC 4, Cyclin B1, CD 40, GAD 65, TAP, Par4 (prostate apoptosis response 4), MRP1; ANGPTL3, CCL2, CDH5, CXCL1, CXCL3, PRMT3, HDAC2, Nitric Oxide Synthase bNOS, Acetyl phospho Histone H3 AL9 S10, MTA 2, Glutamic Acid Decarboxylase GAD65 67, KSR, HDAC4, BOB1 OBF1, a1Syntrophin, BAP1, Importin-α5, Importin-α7, αE-Catenin, Grb2, Bax, Actin-like 6A, Eukaryotic Initiation Factor 4All, Nuclear Chloride Channel protein, Proteasome 26S subunit, Translin-associated factor X, Arsenite translocating ATPase, Spermine synthetase, ribosomal protein SA, dCTP pyrophosphatase 1, proteasome beta 3, proteasome beta 4, acid phosphatase 1, diazepam binding inhibitor, ribosomal protein P2 (RPLP2); histone H2A, lamin B1, SMT 3 suppressor of mif two 3 homolog 2, DNA directed DNA polymerase epsilon 3 (canopy 2 homolog), Angiotensin-converting enzyme (ACE), Caspase 3, GARS, Matrix Metalloproteinase 6 (MMP-6), Neurolysin (NLN)-Catalytic Domain, Neurolysin (NLN), MDC1, Laminin2 a2, bCatenin, FXR2, AnnexinV, SMAC Diablo, MBNL1, Dimethyl Histone h3, Growth factor independent 1, U2AF65, mTOR, E2F2, Kaiso, Glycogen Synthase Kinase 3, ATF2, HDRP MITR, Neurabin I, AP1, and Apaf1; and

comparing the level of expression of the marker present in the biological sample obtained from the subject with the level of expression of the marker present in a control sample,

wherein a higher level of expression of a marker selected from the group consisting of:

(a) LAMA5, PXLDC1, p300 CBP, P53R2, Phosphatidylserine Receptor, Cytokeratin Peptide 17, Cytokeratin peptide 13, Neurofilament 160, Neurofilament 200, Rab5, Filensin, MSH6, Heat Shock Factor 2, AFX, FLIPg d, JAB 1, Myosine, MEKK4, cRaf pSer621, FKHR FOXO1a, MDM2, Fas Ligand, Myosin Regulatory Light Chain, Ubiquilin 1 (Phosphatase 2A), alpha 2-HS glycoprotein, beta actin, heat shock protein 70kD, beta tubulin, ATP dependent helicase II, ER lipid raft associated 2 isoform 1 (beta actin), signal sequence receptor 1 delta, ADRB, CEACAM1, DUSP4, FOXC2, FOXP3, GCGR, GPD1, HMOX1, IL4R, INPPL1, IRS2 and VEGFA, putative c-myc-responsive isoform 1, PDK 1, Caspase 12, Phospholipase D1, P34 cdc2, P53 BP1, BTK, ASC2, BUBR1, ARTS, PCAF, Raf1, MSK1, SNAP25, APRIL, DAPK, RAIDD, HAT1, PSF, HDAC1, Rad17, Survivin, SLIPR, MAG13, Caspase 10, Crk2, Cdc 6, P21 WAF 1 Cip 1, ASPP 1, HDAC 4, Cyclin B1, CD 40, GAD 65, TAP, Par4 (prostate apoptosis response 4), and MRP1;

and/or

a lower level of expression of a marker selected from the group consisting of

(b) ANGPTL3, CCL2, CDH5, CXCL1, CXCL3, PRMT3, HDAC2, Nitric Oxide Synthase bNOS, Acetyl phospho Histone H3 AL9 S10, MTA 2, Glutamic Acid Decarboxylase GAD65 67, KSR, HDAC4, BOB1 OBF1, a1Syntrophin, BAP1, Importin-α5, Importin-α7, αE-Catenin, Grb2, Bax, Actin-like 6A, Eukaryotic Initiation Factor 4All, Nuclear Chloride Channel protein, Proteasome 26S subunit, Translin-associated factor X, Arsenite translocating ATPase, Spermine synthetase, ribosomal protein SA, dCTP pyrophosphatase 1, proteasome beta 3, proteasome beta 4, acid phosphatase 1, diazepam binding inhibitor, ribosomal protein P2 (RPLP2); histone H2A, lamin B1, SMT 3 suppressor of mif two 3 homolog 2, DNA directed DNA polymerase epsilon 3 (canopy 2 homolog), Angiotensin-converting enzyme (ACE), Caspase 3, GARS, Matrix Metalloproteinase 6 (MMP-6), Neurolysin (NLN)-Catalytic Domain, Neurolysin (NLN), MDC1, Laminin2 a2, bCatenin, FXR2, AnnexinV, SMAC Diablo, MBNL1, Dimethyl Histone h3, Growth factor independent 1, U2AF65, mTOR, E2F2, Kaiso, Glycogen Synthase Kinase 3, ATF2, HDRP MITR, Neurabin I, AP1, and Apaf1

in the biological sample obtained from the subject relative to the level of expression of the marker in the control sample is an indication of survival of the subject, thereby prognosing survival of the subject with the sarcoma.

6. A method of identifying a compound for treating a sarcoma in a subject, the method comprising:

contacting a biological sample obtained from a subject with a test compound;

determining the level of expression of a marker present in the biological sample obtained from the subject, wherein the marker is selected from the group consisting of LAMA5, PXLDC1, p300 CBP, P53R2, Phosphatidylserine Receptor, Cytokeratin Peptide 17, Cytokeratin peptide 13, Neurofilament 160, Neurofilament 200, Rab5, Filensin, MSH6, Heat Shock Factor 2, AFX, FLIPg d, JAB 1, Myosine, MEKK4, cRaf pSer621, FKHR FOXO1a, MDM2, Fas Ligand, Myosin Regulatory Light Chain, Ubiquilin 1 (Phosphatase 2A), alpha 2-HS glycoprotein, beta actin, heat shock protein 70kD, beta tubulin, ATP dependent helicase II, ER lipid raft associated 2 isoform 1 (beta actin), signal sequence receptor 1 delta, ADRB, CEACAM1, DUSP4, FOXC2, FOXP3, GCGR, GPD1, HMOX1, IL4R, INPPL1, IRS2 and VEGFA, putative c-myc-responsive isoform 1, PDK 1, Caspase 12, Phospholipase D1, P34 cdc2, P53 BP1, BTK, ASC2, BUBR1, ARTS, PCAF, Raf1, MSK1, SNAP25, APRIL, DAPK, RAIDD, HAT1, PSF, HDAC1, Rad17, Survivin, SLIPR, MAG13, Caspase 10, Crk2, Cdc 6, P21 WAF 1 Cip 1, ASPP 1, HDAC 4, Cyclin B1, CD 40, GAD 65, TAP, Par4 (prostate apoptosis response 4), MRP1; ANGPTL3, CCL2, CDH5, CXCL1, CXCL3, PRMT3, HDAC2, Nitric

Oxide Synthase bNOS, Acetyl phospho Histone H3 AL9 S10, MTA 2, Glutamic Acid Decarboxylase GAD65 67, KSR, HDAC4, BOB1 OBF1, a1Syntrophin, BAP1, Importin-α 5, Importin-α 7, α E-Catenin, Grb2, Bax, Actin-like 6A, Eukaryotic Initiation Factor 4All, Nuclear Chloride Channel protein, Proteasome 26S subunit, Translin-associated factor X, Arsenite translocating ATPase, Spermine synthetase, ribosomal protein SA, dCTP pyrophosphatase 1, proteasome beta 3, proteasome beta 4, acid phosphatase 1, diazepam binding inhibitor, ribosomal protein P2 (RPLP2); histone H2A, lamin B1, SMT 3 suppressor of mif two 3 homolog 2, DNA directed DNA polymerase epsilon 3 (canopy 2 homolog), Angiotensin-converting enzyme (ACE), Caspase 3, GARS, Matrix Metalloproteinase 6 (MMP-6), Neurolysin (NLN)-Catalytic Domain, Neurolysin (NLN), MDC1, Laminin2 a2, bCatenin, FXR2, AnnexinV, SMAC Diablo, MBNL1, Dimethyl Histone h3, Growth factor independent 1, U2AF65, mTOR, E2F2, Kaiso, Glycogen Synthase Kinase 3, ATF2, HDRP MITR, Neurabin I, AP1, and Apaf1;

comparing the level of expression of the at least two markers in the biological sample with a control; and

selecting a test compound that increases the level of expression of a marker selected from the group consisting of:

(a) LAMA5, PXLDC1, p300 CBP, P53R2, Phosphatidylserine Receptor, Cytokeratin Peptide 17, Cytokeratin peptide 13, Neurofilament 160, Neurofilament 200, Rab5, Filensin, MSH6, Heat Shock Factor 2, AFX, FLIPg d, JAB 1, Myosine, MEKK4, cRaf pSer621, FKHR FOXO1a, MDM2, Fas Ligand, Myosin Regulatory Light Chain, Ubiquilin 1 (Phosphatase 2A), alpha 2-HS glycoprotein, beta actin, heat shock protein 70kD, beta tubulin, ATP dependent helicase II, ER lipid raft associated 2 isoform 1 (beta actin), signal sequence receptor 1 delta, ADRB, CEACAM1, DUSP4, FOXC2, FOXP3, GCGR, GPD1, HMOX1, IL4R, INPPL1, IRS2 and VEGFA, putative c-myc-responsive isoform 1, PDK 1, Caspase 12, Phospholipase D1, P34 cdc2, P53 BP1, BTK, ASC2, BUBR1, ARTS, PCAF, Raf1, MSK1, SNAP25, APRIL, DAPK, RAIDD, HAT1, PSF, HDAC1, Rad17, Survivin, SLIPR, MAG13, Caspase 10, Crk2, Cdc 6, P21 WAF 1 Cip 1, ASPP 1, HDAC 4, Cyclin B1, CD 40, GAD 65, TAP, Par4 (prostate apoptosis response 4), and MRP1;

and/or

decreases the level of expression of a marker selected from the group consisting of

(b) ANGPTL3, CCL2, CDH5, CXCL1, CXCL3, PRMT3, HDAC2, Nitric Oxide Synthase bNOS, Acetyl phospho Histone H3 AL9 S10, MTA 2, Glutamic Acid Decarboxylase GAD65 67, KSR, HDAC4, BOB1 OBF1, a1Syntrophin, BAP1, Importin-α 5,

Importin-α 7, α E-Catenin, Grb2, Bax, Actin-like 6A, Eukaryotic Initiation Factor 4All, Nuclear Chloride Channel protein, Proteasome 26S subunit, Translin-associated factor X, Arsenite translocating ATPase, Spermine synthetase, ribosomal protein SA, dCTP pyrophosphatase 1, proteasome beta 3, proteasome beta 4, acid phosphatase 1, diazepam binding inhibitor, ribosomal protein P2 (RPLP2); histone H2A, lamin B1, SMT 3 suppressor of mif two 3 homolog 2, DNA directed DNA polymerase epsilon 3 (canopy 2 homolog), Angiotensin-converting enzyme (ACE), Caspase 3, GARS, Matrix Metalloproteinase 6 (MMP-6), Neurolysin (NLN)-Catalytic Domain, Neurolysin (NLN), MDC1, Laminin2 a2, bCatenin, FXR2, AnnexinV, SMAC Diablo, MBNL1, Dimethyl Histone h3, Growth factor independent 1, U2AF65, mTOR, E2F2, Kaiso, Glycogen Synthase Kinase 3, ATF2, HDRP MITR, Neurabin I, AP1, and Apaf1,

thereby identifying a compound for treating the sarcoma in a subject.

7. The method of any one of claims 1-6, wherein the sarcoma is a type of sarcoma in Ewing's family of tumors.

8. The method of claim 7, wherein the type of sarcoma in Ewing's family of tumors is Ewing's sarcoma.

9. The method of any one of claims 1-6, wherein the sample comprises a fluid obtained from the subject.

10. The method of claim 9, wherein the fluid is selected from the group consisting of blood fluids, vomit, saliva, lymph, cystic fluid, urine, fluids collected by bronchial lavage, fluids collected by peritoneal rinsing, and gynecological fluids.

11. The method of claim 10, wherein the sample is a blood sample or a component thereof.

12. The method of any one of claims 1-6, wherein the sample comprises a tissue or component thereof obtained from the subject.

13. The method of claim 12, wherein the tissue is selected from the group consisting of bone, connective tissue, cartilage, lung, liver, kidney, muscle tissue, heart, pancreas, and skin.

14. The method of any one of claims 1-6, wherein the subject is a human.

15. The method of any one of claims 1-6, wherein the level of expression of the marker in the biological sample is determined by assaying a transcribed polynucleotide or a portion thereof in the sample.

16. The method of claim 15, wherein assaying the transcribed polynucleotide comprises amplifying the transcribed polynucleotide.

17. The method of any one of claims 1-6, wherein the level of expression of the marker in the subject sample is determined by assaying a protein or a portion thereof in the sample.

18. The method of claim 17, wherein the protein is assayed using a reagent which specifically binds with the protein.

19. The method of any one of claims 1-6, wherein the level of expression of the marker in the sample is determined using a technique selected from the group consisting of polymerase chain reaction (PCR) amplification reaction, reverse-transcriptase PCR analysis, single-strand conformation polymorphism analysis (SSCP), mismatch cleavage detection, heteroduplex analysis, Southern blot analysis, Northern blot analysis, Western blot analysis, in situ hybridization, array analysis, deoxyribonucleic acid sequencing, restriction fragment length polymorphism analysis, and combinations or subcombinations thereof, of said sample.

20. The method of any one of claims 1-6, wherein the level of expression of the marker in the sample is determined using a technique selected from the group consisting of immunohistochemistry, immunocytochemistry, flow cytometry, ELISA and mass spectrometry.

21. The method of any one of claims 1-6, wherein the level of expression of a plurality of markers is determined.

22. The method of any one of claims 1-6, wherein the subject is being treated with a therapy selected from the group consisting of an environmental influencer compound, surgery, radiation, hormone therapy, antibody therapy, therapy with growth factors, cytokines, chemotherapy, and allogenic stem cell therapy.

23. The method of claim 22, wherein the environmental influencer compound is a Coenzyme Q10 molecule.

24. A kit comprising reagents for determining the level of expression of at least one marker selected from the group consisting of LAMA5, PXLDC1, p300 CBP, P53R2, Phosphatidylserine Receptor, Cytokeratin Peptide 17, Cytokeratin peptide 13, Neurofilament 160, Neurofilament 200, Rab5, Filensin, MSH6, Heat Shock Factor 2, AFX, FLIPg d, JAB 1, Myosine, MEKK4, cRaf pSer621, FKHR FOXO1a, MDM2, Fas Ligand, Myosin Regulatory Light Chain, Ubiquilin 1 (Phosphatase 2A), alpha 2-HS glycoprotein, beta actin, heat shock protein 70kD, beta tubulin, ATP dependent helicase II, ER lipid raft associated 2 isoform 1 (beta actin), signal sequence receptor 1 delta, ADRB, CEACAM1, DUSP4, FOXC2, FOXP3, GCGR, GPD1, HMOX1, IL4R, INPPL1, IRS2 and VEGFA, putative c-myc-responsive isoform 1, PDK 1, Caspase 12, Phospholipase D1, P34 cdc2, P53 BP1, BTK, ASC2, BUBR1, ARTS, PCAF, Raf1, MSK1, SNAP25, APRIL, DAPK, RAIDD, HAT1, PSF, HDAC1, Rad17, Survivin, SLIPR, MAG13, Caspase 10, Crk2, Cdc 6, P21 WAF 1 Cip 1, ASPP 1, HDAC 4, Cyclin B1, CD 40, GAD 65, TAP, Par4 (prostate apoptosis response 4), MRP1; ANGPTL3, CCL2, CDH5, CXCL1, CXCL3, PRMT3, HDAC2, Nitric Oxide Synthase bNOS, Acetyl phospho Histone H3 AL9 S10, MTA 2, Glutamic Acid Decarboxylase GAD65 67, KSR, HDAC4, BOB1 OBF1, a1Syntrophin, BAP1, Importin-α 5, Importin-α 7, α E-Catenin, Grb2, Bax, Actin-like 6A, Eukaryotic Initiation Factor 4All, Nuclear Chloride Channel protein, Proteasome 26S subunit, Translin-associated factor X, Arsenite translocating ATPase, Spermine synthetase, ribosomal protein SA, dCTP pyrophosphatase 1, proteasome beta 3, proteasome beta 4, acid phosphatase 1, diazepam binding inhibitor, ribosomal protein P2 (RPLP2); histone H2A, lamin B1, SMT 3 suppressor of mif two 3 homolog 2, DNA directed DNA polymerase epsilon 3 (canopy 2 homolog), Angiotensin-converting enzyme (ACE), Caspase 3, GARS, Matrix Metalloproteinase 6 (MMP-6), Neurolysin (NLN)-Catalytic Domain, Neurolysin (NLN), MDC1, Laminin2 a2, bCatenin, FXR2, AnnexinV, SMAC Diablo, MBNL1, Dimethyl Histone h3, Growth factor independent 1, U2AF65, mTOR, E2F2, Kaiso, Glycogen Synthase Kinase 3, ATF2, HDRP MITR, Neurabin I, AP1, and Apaf1 for use in assessing the efficacy of a therapy for treating a sarcoma; and

instructions for use of the kit to assess the efficacy of the therapy for treating the sarcoma.

25. A kit comprising reagents for determining the level of expression of at least one marker selected from the group consisting of LAMA5, PXLDC1, p300 CBP, P53R2, Phosphatidylserine Receptor, Cytokeratin Peptide 17, Cytokeratin peptide 13, Neurofilament 160, Neurofilament 200, Rab5, Filensin, MSH6, Heat Shock Factor 2, AFX, FLIPg d, JAB 1, Myosine, MEKK4, cRaf

pSer621, FKHR FOXO1a, MDM2, Fas Ligand, Myosin Regulatory Light Chain, Ubiquilin 1 (Phosphatase 2A), alpha 2-HS glycoprotein, beta actin, heat shock protein 70kD, beta tubulin, ATP dependent helicase II, ER lipid raft associated 2 isoform 1 (beta actin), signal sequence receptor 1 delta, ADRB, CEACAM1, DUSP4, FOXC2, FOXP3, GCGR, GPD1, HMOX1, IL4R, INPPL1, IRS2 and VEGFA, putative c-myc-responsive isoform 1, PDK 1, Caspase 12, Phospholipase D1, P34 cdc2, P53 BP1, BTK, ASC2, BUBR1, ARTS, PCAF, Raf1, MSK1, SNAP25, APRIL, DAPK, RAIDD, HAT1, PSF, HDAC1, Rad17, Survivin, SLIPR, MAG13, Caspase 10, Crk2, Cdc 6, P21 WAF 1 Cip 1, ASPP 1, HDAC 4, Cyclin B1, CD 40, GAD 65, TAP, Par4 (prostate apoptosis response 4), MRP1; ANGPTL3, CCL2, CDH5, CXCL1, CXCL3, PRMT3, HDAC2, Nitric Oxide Synthase bNOS, Acetyl phospho Histone H3 AL9 S10, MTA 2, Glutamic Acid Decarboxylase GAD65 67, KSR, HDAC4, BOB1 OBF1, a1Syntrophin, BAP1, Importin-α5, Importin-α7, αE-Catenin, Grb2, Bax, Actin-like 6A, Eukaryotic Initiation Factor 4All, Nuclear Chloride Channel protein, Proteasome 26S subunit, Translin-associated factor X, Arsenite translocating ATPase, Spermine synthetase, ribosomal protein SA, dCTP pyrophosphatase 1, proteasome beta 3, proteasome beta 4, acid phosphatase 1, diazepam binding inhibitor, ribosomal protein P2 (RPLP2); histone H2A, lamin B1, SMT 3 suppressor of mif two 3 homolog 2, DNA directed DNA polymerase epsilon 3 (canopy 2 homolog), Angiotensin-converting enzyme (ACE), Caspase 3, GARS, Matrix Metalloproteinase 6 (MMP-6), Neurolysin (NLN)-Catalytic Domain, Neurolysin (NLN), MDC1, Laminin2 a2, bCatenin, FXR2, AnnexinV, SMAC Diablo, MBNL1, Dimethyl Histone h3, Growth factor independent 1, U2AF65, mTOR, E2F2, Kaiso, Glycogen Synthase Kinase 3, ATF2, HDRP MITR, Neurabin I, AP1, and Apaf1 for use in assessing whether a subject is afflicted with a sarcoma; and

instructions for use of the kit to assess whether the subject is afflicted with the sarcoma.

26. A kit comprising reagents for determining the level of expression of at least one marker selected from the group consisting of LAMA5, PXLDC1, p300 CBP, P53R2, Phosphatidylserine Receptor, Cytokeratin Peptide 17, Cytokeratin peptide 13, Neurofilament 160, Neurofilament 200, Rab5, Filensin, MSH6, Heat Shock Factor 2, AFX, FLIPg d, JAB 1, Myosine, MEKK4, cRaf pSer621, FKHR FOXO1a, MDM2, Fas Ligand, Myosin Regulatory Light Chain, Ubiquilin 1 (Phosphatase 2A), alpha 2-HS glycoprotein, beta actin, heat shock protein 70kD, beta tubulin, ATP dependent helicase II, ER lipid raft associated 2 isoform 1 (beta actin), signal sequence receptor 1 delta, ADRB, CEACAM1, DUSP4, FOXC2, FOXP3, GCGR, GPD1, HMOX1, IL4R, INPPL1, IRS2 and VEGFA, putative c-myc-responsive isoform 1, PDK 1, Caspase 12, Phospholipase D1, P34 cdc2, P53 BP1, BTK, ASC2, BUBR1, ARTS, PCAF, Raf1, MSK1, SNAP25, APRIL, DAPK, RAIDD, HAT1, PSF, HDAC1, Rad17, Survivin, SLIPR, MAG13, Caspase 10, Crk2, Cdc 6, P21 WAF 1 Cip 1, ASPP 1, HDAC 4, Cyclin B1, CD 40, GAD 65, TAP, Par4 (prostate apoptosis response 4), MRP1;

ANGPTL3, CCL2, CDH5, CXCL1, CXCL3, PRMT3, HDAC2, Nitric Oxide Synthase bNOS, Acetyl phospho Histone H3 AL9 S10, MTA 2, Glutamic Acid Decarboxylase GAD65 67, KSR, HDAC4, BOB1 OBF1, a1Syntrophin, BAP1, Importin-α 5, Importin-α 7, α E-Catenin, Grb2, Bax, Actin-like 6A, Eukaryotic Initiation Factor 4All, Nuclear Chloride Channel protein, Proteasome 26S subunit, Translin-associated factor X, Arsenite translocating ATPase, Spermine synthetase, ribosomal protein SA, dCTP pyrophosphatase 1, proteasome beta 3, proteasome beta 4, acid phosphatase 1, diazepam binding inhibitor, ribosomal protein P2 (RPLP2); histone H2A, lamin B1, SMT 3 suppressor of mif two 3 homolog 2, DNA directed DNA polymerase epsilon 3 (canopy 2 homolog), Angiotensin-converting enzyme (ACE), Caspase 3, GARS, Matrix Metalloproteinase 6 (MMP-6), Neurolysin (NLN)-Catalytic Domain, Neurolysin (NLN), MDC1, Laminin2 a2, bCatenin, FXR2, AnnexinV, SMAC Diablo, MBNL1, Dimethyl Histone h3, Growth factor independent 1, U2AF65, mTOR, E2F2, Kaiso, Glycogen Synthase Kinase 3, ATF2, HDRP MITR, Neurabin I, AP1, and Apaf1 for use in prognosing whether a subject is predisposed to developing a sarcoma; and

instructions for use of the kit to prognose whether the subject is predisposed to developing the sarcoma.

27. A kit comprising reagents for assessing the level of expression of at least one marker selected from the group consisting of LAMA5, PXLDC1, p300 CBP, P53R2, Phosphatidylserine Receptor, Cytokeratin Peptide 17, Cytokeratin peptide 13, Neurofilament 160, Neurofilament 200, Rab5, Filensin, MSH6, Heat Shock Factor 2, AFX, FLIPg d, JAB 1, Myosine, MEKK4, cRaf pSer621, FKHR FOXO1a, MDM2, Fas Ligand, Myosin Regulatory Light Chain, Ubiquilin 1 (Phosphatase 2A), alpha 2-HS glycoprotein, beta actin, heat shock protein 70kD, beta tubulin, ATP dependent helicase II, ER lipid raft associated 2 isoform 1 (beta actin), signal sequence receptor 1 delta, ADRB, CEACAM1, DUSP4, FOXC2, FOXP3, GCGR, GPD1, HMOX1, IL4R, INPPL1, IRS2 and VEGFA, putative c-myc-responsive isoform 1, PDK 1, Caspase 12, Phospholipase D1, P34 cdc2, P53 BP1, BTK, ASC2, BUBR1, ARTS, PCAF, Raf1, MSK1, SNAP25, APRIL, DAPK, RAIDD, HAT1, PSF, HDAC1, Rad17, Survivin, SLIPR, MAG13, Caspase 10, Crk2, Cdc 6, P21 WAF 1 Cip 1, ASPP 1, HDAC 4, Cyclin B1, CD 40, GAD 65, TAP, Par4 (prostate apoptosis response 4), MRP1; ANGPTL3, CCL2, CDH5, CXCL1, CXCL3, PRMT3, HDAC2, Nitric Oxide Synthase bNOS, Acetyl phospho Histone H3 AL9 S10, MTA 2, Glutamic Acid Decarboxylase GAD65 67, KSR, HDAC4, BOB1 OBF1, a1Syntrophin, BAP1, Importin-α 5, Importin-α 7, α E-Catenin, Grb2, Bax, Actin-like 6A, Eukaryotic Initiation Factor 4All, Nuclear Chloride Channel protein, Proteasome 26S subunit, Translin-associated factor X, Arsenite translocating ATPase, Spermine synthetase, ribosomal protein SA, dCTP pyrophosphatase 1, proteasome beta 3, proteasome beta 4, acid phosphatase 1, diazepam binding inhibitor, ribosomal protein P2 (RPLP2); histone H2A, lamin B1, SMT 3 suppressor of mif

two 3 homolog 2, DNA directed DNA polymerase epsilon 3 (canopy 2 homolog), Angiotensin-converting enzyme (ACE), Caspase 3, GARS, Matrix Metalloproteinase 6 (MMP-6), Neurolysin (NLN)-Catalytic Domain, Neurolysin (NLN), MDC1, Laminin2 a2, bCatenin, FXR2, AnnexinV, SMAC Diablo, MBNL1, Dimethyl Histone h3, Growth factor independent 1, U2AF65, mTOR, E2F2, Kaiso, Glycogen Synthase Kinase 3, ATF2, HDRP MITR, Neurabin I, AP1, and Apaf1 for use in prognosing the recurrence of a sarcoma in a subject; and
instructions for use of the kit to prognose the recurrence of the sarcoma.

28. A kit comprising reagents for determining the level of expression of at least one marker selected from the group consisting of LAMA5, PXLDC1, p300 CBP, P53R2, Phosphatidylserine Receptor, Cytokeratin Peptide 17, Cytokeratin peptide 13, Neurofilament 160, Neurofilament 200, Rab5, Filensin, MSH6, Heat Shock Factor 2, AFX, FLIPg d, JAB 1, Myosine, MEKK4, cRaf pSer621, FKHR FOXO1a, MDM2, Fas Ligand, Myosin Regulatory Light Chain, Ubiquilin 1 (Phosphatase 2A), alpha 2-HS glycoprotein, beta actin, heat shock protein 70kD, beta tubulin, ATP dependent helicase II, ER lipid raft associated 2 isoform 1 (beta actin), signal sequence receptor 1 delta, ADRB, CEACAM1, DUSP4, FOXC2, FOXP3, GCGR, GPD1, HMOX1, IL4R, INPPL1, IRS2 and VEGFA, putative c-myc-responsive isoform 1, PDK 1, Caspase 12, Phospholipase D1, P34 cdc2, P53 BP1, BTK, ASC2, BUBR1, ARTS, PCAF, Raf1, MSK1, SNAP25, APRIL, DAPK, RAIDD, HAT1, PSF, HDAC1, Rad17, Survivin, SLIPR, MAG13, Caspase 10, Crk2, Cdc 6, P21 WAF 1 Cip 1, ASPP 1, HDAC 4, Cyclin B1, CD 40, GAD 65, TAP, Par4 (prostate apoptosis response 4), MRP1; ANGPTL3, CCL2, CDH5, CXCL1, CXCL3, PRMT3, HDAC2, Nitric Oxide Synthase bNOS, Acetyl phospho Histone H3 AL9 S10, MTA 2, Glutamic Acid Decarboxylase GAD65 67, KSR, HDAC4, BOB1 OBF1, a1Syntrophin, BAP1, Importin-α5, Importin-α7, αE-Catenin, Grb2, Bax, Actin-like 6A, Eukaryotic Initiation Factor 4All, Nuclear Chloride Channel protein, Proteasome 26S subunit, Translin-associated factor X, Arsenite translocating ATPase, Spermine synthetase, ribosomal protein SA, dCTP pyrophosphatase 1, proteasome beta 3, proteasome beta 4, acid phosphatase 1, diazepam binding inhibitor, ribosomal protein P2 (RPLP2); histone H2A, lamin B1, SMT 3 suppressor of mif two 3 homolog 2, DNA directed DNA polymerase epsilon 3 (canopy 2 homolog), Angiotensin-converting enzyme (ACE), Caspase 3, GARS, Matrix Metalloproteinase 6 (MMP-6), Neurolysin (NLN)-Catalytic Domain, Neurolysin (NLN), MDC1, Laminin2 a2, bCatenin, FXR2, AnnexinV, SMAC Diablo, MBNL1, Dimethyl Histone h3, Growth factor independent 1, U2AF65, mTOR, E2F2, Kaiso, Glycogen Synthase Kinase 3, ATF2, HDRP MITR, Neurabin I, AP1, and Apaf1 for use in prognosing the survival of a subject with a sarcoma; and
instructions for use of the kit to prognose the survival of the subject with the sarcoma.

29. A kit comprising reagents for determining the level of expression of at least one marker selected from the group consisting of LAMA5, PXLDC1, p300 CBP, P53R2, Phosphatidylserine Receptor, Cytokeratin Peptide 17, Cytokeratin peptide 13, Neurofilament 160, Neurofilament 200, Rab5, Filensin, MSH6, Heat Shock Factor 2, AFX, FLIPg d, JAB 1, Myosine, MEKK4, cRaf pSer621, FKHR FOXO1a, MDM2, Fas Ligand, Myosin Regulatory Light Chain, Ubiquilin 1 (Phosphatase 2A), alpha 2-HS glycoprotein, beta actin, heat shock protein 70kD, beta tubulin, ATP dependent helicase II, ER lipid raft associated 2 isoform 1 (beta actin), signal sequence receptor 1 delta, ADRB, CEACAM1, DUSP4, FOXC2, FOXP3, GCGR, GPD1, HMOX1, IL4R, INPPL1, IRS2 and VEGFA, putative c-myc-responsive isoform 1, PDK 1, Caspase 12, Phospholipase D1, P34 cdc2, P53 BP1, BTK, ASC2, BUBR1, ARTS, PCAF, Raf1, MSK1, SNAP25, APRIL, DAPK, RAIDD, HAT1, PSF, HDAC1, Rad17, Survivin, SLIPR, MAG13, Caspase 10, Crk2, Cdc 6, P21 WAF 1 Cip 1, ASPP 1, HDAC 4, Cyclin B1, CD 40, GAD 65, TAP, Par4 (prostate apoptosis response 4), MRP1; ANGPTL3, CCL2, CDH5, CXCL1, CXCL3, PRMT3, HDAC2, Nitric Oxide Synthase bNOS, Acetyl phospho Histone H3 AL9 S10, MTA 2, Glutamic Acid Decarboxylase GAD65 67, KSR, HDAC4, BOB1 OBF1, a1Syntrophin, BAP1, Importin-α5, Importin-α7, αE-Catenin, Grb2, Bax, Actin-like 6A, Eukaryotic Initiation Factor 4All, Nuclear Chloride Channel protein, Proteasome 26S subunit, Translin-associated factor X, Arsenite translocating ATPase, Spermine synthetase, ribosomal protein SA, dCTP pyrophosphatase 1, proteasome beta 3, proteasome beta 4, acid phosphatase 1, diazepam binding inhibitor, ribosomal protein P2 (RPLP2); histone H2A, lamin B1, SMT 3 suppressor of mif two 3 homolog 2, DNA directed DNA polymerase epsilon 3 (canopy 2 homolog), Angiotensin-converting enzyme (ACE), Caspase 3, GARS, Matrix Metalloproteinase 6 (MMP-6), Neurolysin (NLN)-Catalytic Domain, Neurolysin (NLN), MDC1, Laminin2 a2, bCatenin, FXR2, AnnexinV, SMAC Diablo, MBNL1, Dimethyl Histone h3, Growth factor independent 1, U2AF65, mTOR, E2F2, Kaiso, Glycogen Synthase Kinase 3, ATF2, HDRP MITR, Neurabin I, AP1, and Apaf1 for use in monitoring the progression of a sarcoma in a subject; and
instructions for use of the kit to prognose the progression of the sarcoma in a subject.

30. The kit of any one of claims 24-29, further comprising means for obtaining a biological sample from a subject.

31. The kit of any one of claims 24-29, further comprising a control sample.

32. The kit of any one of claims 24-29, wherein the reagents for determining the level of expression of at least one marker comprise reagents for assaying a transcribed polynucleotide or a portion thereof in the sample.

33. The kit of any one of claims 24-29, wherein the reagents for determining the level of expression of at least one marker comprise reagents for assaying a protein or a portion thereof in the sample.

34. The kit of any one of claims 24-29, further comprising an environmental influencer compound.

35. The kit of any one of claims 24-29, wherein the kit comprises reagents for determining the level of expression of a plurality of markers.