21. The isolated cytotoxic peptide of any one of claims 1-7, wherein the peptide is conjugated to a nanoparticle or a microparticle.

22. The isolated cytotoxic peptide of claim 21, wherein the nanoparticle or microparticle is made from a material selected from the group consisting of metal, silica, carbon, polymeric materials, and mixtures thereof.

23. The isolated cytotoxic peptide of any one of claims 1 to 22, wherein the peptide has a modification selected from the group consisting of glycosylation, sulfation, phosphorylation, ubiquitination, methylation, lipidation, biotinylation, hydroxylation and acetylation.

24. An isolated nucleic acid molecule comprising the nucleotide sequence encoding the isolated cytotoxic peptide of any one of claims 1-23.

25. A vector comprising the isolated nucleic acid molecule of claim 24.

26. A pharmaceutical composition comprising the isolated cytotoxic peptide or conjugate thereof of any one of claims 1-23, the isolated nucleic acid molecule of claim 24 or the vector of claim 25.

27. Use of the isolated cytotoxic peptide or conjugate thereof of any one of claims 1-23, the isolated nucleic acid molecule of claim 24, the vector of claim 25 or the pharmaceutical composition of claim 26 in the manufacture of a medicament for treating or preventing cancer in a subject.

28. The use of claim 27, wherein the cancer is selected from the group consisting of breast cancer, colorectal cancer, gastric cancer, melanoma, pancreatic cancer, skin cancer, leukemia, myeloma, hepatocellular cancer, pancreatic cancer, cervical cancer, ewings tumour, neuroblastoma, kaposis sarcoma, prostate cancer, bladder cancer, melanoma, lung cancer - non small cell lung cancer (NSCLC), and small cell lung cancer (SCLC), head and neck cancer, renal cancer, lymphoma, prostate cancer,

neuroblastoma, a blood cancer, testicular cancer, ovarian cancer, liver cancer or esophageal cancer, cervical cancer, non-melanoma skin cancer, glioblastoma, carcinoma, uterus cancer, chronic lymphoid leukemia, lymphoblastic leukemia, follicular lymphomas, melanomas, malignant homeopathies,acute leukemia, basal cell carcinoma, bone cancer, brain and central nervous system (CNS) cancer, connective tissue cancer, eye cancer, kidney cancer, larynx cancer, Hodgkin's lymphoma, non- Hodgkin's lymphoma, oral cavity (lip, tongue, mouth, and pharynx) cancer, and rhabdomyosarcoma.

29. The use of claim 28, wherein the cancer is breast cancer.

30. Use of the isolated cytotoxic peptide or conjugate thereof of any one of claims 1-23, the isolated nucleic acid molecule of claim 24, the vector of claim 25 or the pharmaceutical composition of claim 26 in the manufacture of a medicament for eliminating undifferentiated stem cells in a subject having stem cell transplantation.

31. The use of claim 30, wherein the stem cell transplantation is selected from the group consisting of: embryonic stem cells transplantation, induced pluripotent stem cells transplantation, tissue stem cells transplantation, and a mixture thereof.

32. Use of the isolated cytotoxic peptide or conjugate thereof of any one of claims 1-23, the isolated nucleic acid molecule of claim 24, the vector of claim 25 or the pharmaceutical composition of claim 26 in the manufacture of a medicament for treating or preventing obesity in a subject.