CLAIMS:

1. A combination for use for treating a solid tumor or hematologic malignancy in a subject, wherein the combination comprises:

a) adipose stromal cells; and

b) an oncolytic virus selected from among poxvirus, adenovirus, herpes simplex virus, Newcastle disease virus, vesicular stomatitis virus, reovirus, cytomegalovirus (CMV), and lentivirus.

2. The combination of claim 1 for use for treating a solid tumor or hematologic malignancy in a subject, wherein the combination comprises:

a) adipose stromal cells; and

b) a poxvirus.

3. The combination of claim 2, wherein the poxvirus is vaccinia virus.

4. The combination of claim 3, wherein the vaccinia virus is a smallpox vaccine.

5. The combination of any of claims 1-4, wherein the stromal cells are allogeneic to the subject.

6. The combination of claim 5, wherein the stromal cells are autologous to the subject.

7. The combination of any of claims 4-6, wherein the smallpox vaccine is an attenuated New York City Board of Health (NYCBOH) strain of vaccinia virus.

8. The combination of claim 7, wherein the NYCBOH strain of vaccinia virus has all of the identifying characteristics of the strain deposited as ATCC VR- 118 or CJ-MVB-SPX.

9. The combination of any of claims 4-6, wherein the smallpox vaccine is selected from among Dryvax, ACAM1000, ACAM2000, Lister, EM63, LIVP, Tian Tan, Copenhagen, Western Reserve, Modified Vaccinia Ankara (MVA), New York City Board of Health, Dairen, Ikeda, LC16M8, Tashkent, Wyeth, IHD-J, IHD-W, Brighton, Dairen I, and Connaught strains.

10. The combination of any of claims 4-6, wherein the smallpox vaccine is Dryvax, ACAM2000 or ACAM 1000.

11. The combination of any of claims 4-6, wherein the smallpox vaccine is ACAM2000.

12. The combination of any of claims 1-11, wherein the adipose stromal cells comprises an adipose-derived stromal vascular fraction (SVF).

13. The combination of any of claims 1-12, wherein the adipose stromal cells and the oncolytic virus are provided as a single composition.

14. The combination of any of claims 1-13, wherein the subject is a human.

15. The combination of any of claims 1-14, wherein the oncolytic virus and the adipose stromal cells are cultured together *in vitro* prior to use.

16. The combination of claim 15, wherein:

the oncolytic virus is a smallpox vaccine; and

the smallpox vaccine and adipose stromal cells are cultured together for 2 to 4 hours.

17. The combination of any of claims 1-16, wherein the oncolytic virus is mixed with the adipose stromal cells to form a single composition.

18. The combination of any of claims 1-17, wherein the solid tumor or hematologic malignancy is a solid tumor.

19. The combination of any of claims 1-17, wherein the solid tumor or hematologic malignancy is selected from among a bladder tumor, a breast tumor, a prostate tumor, basal cell carcinoma, biliary tract cancer, bladder cancer, bone cancer, brain cancer, CNS cancer, glioma tumor, cervical cancer, choriocarcinoma, colon and rectum cancer, connective tissue cancer, cancer of the digestive system, endometrial cancer, esophageal cancer, eye cancer, cancer of the head and neck, gastric cancer, intra-epithelial neoplasm, kidney cancer, larynx cancer, leukemia, liver cancer, lung cancer, lymphoma, Hodgkin's lymphoma, Non-Hodgkin's lymphoma, melanoma, myeloma, neuroblastoma, oral cavity cancer, ovarian cancer, pancreatic cancer, retinoblastoma, rhabdomyosarcoma, rectal cancer, renal cancer, cancer of the respiratory system, sarcoma, skin cancer, stomach cancer, testicular cancer, thyroid cancer, uterine cancer, cancer of the urinary system, lymphosarcoma, osteosarcoma, mammary tumors, mastocytoma, a brain tumor, adenosquamous carcinoma, carcinoid lung tumor, bronchial gland tumor, bronchiolar adenocarcinoma, small cell lung cancer, non-small cell lung cancers, fibroma, myxochondroma, pulmonary sarcoma, neurosarcoma, osteoma, papilloma, Ewing's sarcoma, Wilm's tumor, Burkitt's lymphoma, microglioma, neuroblastoma, osteoclastoma, oral neoplasia, fibrosarcoma, osteosarcoma, genital squamous cell carcinoma, transmissible venereal tumor, testicular tumor, seminoma, Sertoli cell tumor, hemangiopericytoma, histiocytoma, chloroma, granulocytic sarcoma, corneal papilloma, corneal squamous cell carcinoma, hemangiosarcoma, pleural mesothelioma, basal cell tumor, thymoma, stomach tumor, adrenal gland carcinoma, oral papillomatosis, hemangioendothelioma, cystadenoma, follicular lymphoma, intestinal lymphosarcoma, pulmonary squamous cell carcinoma, hemangiopericytoma, ocular neoplasia, preputial fibrosarcoma, ulcerative squamous cell carcinoma, preputial carcinoma, connective tissue neoplasia, hepatocellular carcinoma, pulmonary adenomatosis, pulmonary sarcoma, Rous sarcoma, reticulo-endotheliosis, nephroblastoma, B-cell lymphoma, lymphoid leukosis, hepatic neoplasia, plasmacytoid leukemia, swimbladder sarcoma (in fish), caseous lumphadenitis, lung carcinoma, insulinoma, salivary gland tumors, neuroma, pancreatic islet cell tumor, gastric MALT lymphoma and gastric adenocarcinoma.

20. The combination of any of claims 1-17, wherein the solid tumor or hematologic malignancy is a solid tumor that is selected from among glioblastoma, breast carcinoma, lung carcinoma, prostate carcinoma, colon carcinoma, pancreatic adenocarcinoma, ovarian carcinoma, neuroblastoma, central nervous system tumor, lung small cell carcinoma, lung non-small cell carcinoma, head and neck squamous cell carcinoma, and melanoma.

21. Use of a combination for the manufacture of a medicament for treating a solid tumor or hematologic malignancy, wherein the combination comprises:

a) adipose stromal cells; and

b) a smallpox vaccine.

22. Use of a combination for the manufacture of a medicament for treating a solid tumor or hematologic malignancy, wherein the combination comprises:

a) an adipose-derived stromal vascular fraction (SVF); and

b) a smallpox vaccine.

23. The use of claim 21 or claim 22, wherein the smallpox vaccine is selected from among Dryvax, ACAM1000, ACAM2000, Lister, EM63, LIVP, Tian Tan, Copenhagen, Western Reserve, Modified Vaccinia Ankara (MVA), New York City Board of Health, Dairen, Ikeda, LC16M8, Tashkent, Wyeth, IHD-J, IHD-W, Brighton, Dairen I, and Connaught strains.