CLAIMS

1. A method of transducing T cells, comprising

thawing frozen peripheral blood mononuclear cells (PBMC),

resting the thawed PBMC for about 2 to about 12 hours,

activating the T cells in the rested PBMC with an anti-CD3 antibody and an anti-CD28 antibody,

transducing the activated T cells with a viral vector, wherein the viral vector comprises a retroviral vector expressing a T cell receptor (TCR),

expanding the transduced T cells in the presence of interleukin 7 (IL-7) and interleukin 15 (IL-15), and

obtaining the expanded T cells.

2. The method of claim 1, wherein the activating step comprises immobilizing the T cells in the rested PBMC with the anti-CD3 antibody and the anti-CD28 antibody on a solid phase support.

3. The method of anyone of claims 1 and 2, wherein the resting step is carried out within a period of time from about 4 hours to about 6 hours.

4. The method of claim 3, wherein the fold expansion of obtained T cells with a resting time of about 4 to about 6 hours is at least about 1.5 fold more than that of obtained T cells prepared under identical conditions but with a resting time of about 16 to about 20 hours.

5. The method of anyone of claims 1 – 4, wherein the concentration of IL-7 in expansion is from about 1 ng/ml to 100 ng/ml and the concentration of IL-15 in expansion is from about 5 ng/ml to 500 ng/ml.

6. The method of anyone of claims 1 – 5 wherein the resting is carried out in the presence of at least one cytokine and optionally wherein the cytokine comprises interleukin 7 (IL-7) and/or interleukin 15 (IL-15).

7. The method of anyone of claims 1 – 6, wherein the activation is carried out within a period of from about 6 hours to about 72 hours.

8. The method of anyone of claims 1 - 7, wherein the transducing is carried out within a period of time from about 1 hour to about 72 hours.

9. The method of anyone of claims 1 – 8, wherein the transducing is carried out in the presence of at least one cytokine.

10. The method of anyone of claims 1 – 9, wherein the thawing, the resting, the activating, the transducing, the expanding, and the obtaining are performed in a closed system.

11. The method of claim 10, wherein the closed system comprises CliniMACS Prodigy^{TM}, WAVE (XURI^{TM}) Bioreactor, WAVE (XURI^{TM}) Bioreactor in combination with BioSafe Sepax^{TM} II, G-Rex/GatheRex^{TM} closed system, or G-Rex/GatheRex^{TM} closed system in combination with BioSafe Sepax^{TM} II.

12. The method of any one of claims 1- 11 wherein the activating is performed for no more than 1 day.

13. The method of anyone of claims 1 – 12, wherein the number of obtained expanded T cells is at least 1 x 10^9 cells.

14. The method of anyone of claims 1 – 13, wherein the expanding is performed for about 3 to about 9 days.

15. A T cell population prepared by the method of any one of claims 1 – 14.