CLAIMS

1. A method of transducing T cells, comprising

thawing frozen peripheral blood mononuclear cells (PBMC),

resting the thawed PBMC for ~~about~~ 24 to ~~about~~ 126 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.~~

43. The method of claim ~~3~~2, 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~~4. The method of anyone of claims 1 – 43, 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~~5. The method of anyone of claims 1 – ~~5~~4 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~~6. The method of anyone of claims 1 – ~~6~~5, wherein the activation is carried out within a period of from ~~about~~ 6 hours to ~~about~~ 72 hours.

~~8~~7. The method of anyone of claims 1 - ~~7~~6, wherein the transducing is carried out within a period of time from ~~about~~ 1 hour to ~~about~~ 72 hours.

~~9~~8. The method of anyone of claims 1 – ~~8~~7, wherein the transducing is carried out in the presence of at least one cytokine.

~~10~~9. The method of anyone of claims 1 – ~~9~~8, 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™, WAVE (XURI™) Bioreactor, WAVE (XURI™) Bioreactor in combination with BioSafe Sepax™ II, G-Rex/GatheRex™ closed system, or G-Rex/GatheRex™ closed system in combination with BioSafe Sepax™ II.~~

~~12~~10. The method of any one of claims 1- ~~11~~9 wherein the activating is performed for no more than 1 day.

~~13~~11. The method of anyone of claims 1 – ~~12~~10, wherein the number of obtained expanded T cells is at least 1 x 10^9 cells.

~~14~~12. The method of anyone of claims 1 – ~~13~~11, 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.~~

13. The method of claim 5, wherein the resting is carried out in the presence of IL-7.

14. The method of claim 5, wherein the resting is carried out in the presence of IL-15.

15. The method of claim 5, wherein the resting is carried out in the presence of IL-7 and IL-15.