CLAIMS

What is claimed is:

1. A population of expanded transforming growth factor-beta (TGF-β) Superfamily-Imprinted Natural Killer (TGFβi NK) cells exhibiting increased resistance to a transforming growth factor-beta (TGF-β) superfamily cytokine for use in a method of treating cancer or an infectious disease in a subject in need thereof, ~~comprising administering a therapeutically effective number of transforming growth factor- beta (TGF-b) Superfamily-Imprinted Natural Killer (TGFβi NK) cells to the subject~~ wherein the population of TGFβi NK cells are expanded *in vitro* in the presence of leukemia feeder cells.

2. The ~~method~~ population of expanded TGFβi NK cells for the use of claim 1, wherein the feeder cells are K562 feeder cells ~~subject has an infectious disease~~.

3. The population of expanded TGFβi NK cells for the use of claim 2, wherein the K562 feeder cells are genetically modified to express 4-1BBL and membrane-bound IL-21 ~~infectious disease is a viral infection~~.

4. The population of expanded TGFβi NK cells for the use ~~method~~ of any one of claims 1-3 ~~claim 1~~, wherein the subject has cancer.

5. The population of expanded TGFβi NK cells for the use ~~method~~ of claim 4, wherein the cancer is a solid tumor.

6. The population of expanded TGFβi NK cells for the use ~~method~~ of claim 4, wherein the cancer is selected from the group consisting of leukemia, lymphoma, rhabdomyosarcoma, brain cancer, and bone cancer.

7. The population of expanded TGFβi NK cells for the use ~~method~~ of any one of claims 1-6 ~~claim 1~~, wherein the TGFβi NK cells are resistant to TGF-β ~~TGF-b~~.

8. The population of expanded TGFβi NK cells for the use ~~method~~ of any one of claims 1-7 ~~claim 1~~, wherein the TGFβi NK cells produce increased amounts of one or more of IFN-γ ~~IFN-g~~, TNF-α ~~TNF-a~~, and GM-CSF.

9. The population of expanded TGFβi NK cells for the use ~~method~~ of any one of claims 1-8 ~~claim 1~~, wherein the TGFβi NK cells show decreased levels of SMAD3 protein and/or TGFBR3 protein.

10. The population of expanded TGFβi NK cells for the use ~~method~~ of any one of claims 1-9 ~~claim 1~~, wherein the TGFβi NK cells exhibit increased expression of SCUBE1 , MY07A, KLF3, WIPF3, and EPHA1; or wherein the population of expanded NK cells exhibit decreased expression of CD300A, SGSM1 , SMAD3, TBX21, GZMK, TGFBR3, and GZMA ~~have a gene expression profile substantially similar to that shown in Figure 12~~.

11. The population of expanded TGFβi NK cells for the use ~~method~~ of any one of claims 1-10 ~~claim 1~~, wherein the TGFβi NK cells are ~~administered~~ for administration together with a pharmaceutically acceptable carrier.

12. An *in vitro* population of expanded natural killer (NK) cells ~~or NK cell line~~ exhibiting increased resistance to TGF-β ~~a TGF-b superfamily cytokine~~.

13. The *in vitro* population of expanded NK cells ~~or cell line~~ of claim 12, wherein the *in vitro* population of expanded NK cells was expanded *in vitro* in the presence of leukemia feeder cells ~~or cell lines exhibit increased resistance to TGF-b~~.

14. The *in vitro* population of expanded NK cells ~~or cell line~~ of claim 12, wherein the *in vitro* population of expanded NK cells produce increased amounts of one or more of IFN-γ ~~IFN-g~~, TNF-α ~~TNF-a~~, and GM-CSF.

15. The *in vitro* population of expanded NK cells ~~or cell line~~ of claim 12, wherein the *in vitro* population of expanded NK cells show decreased levels of SMAD3 protein and/or TGFBR3 protein.

16. The *in vitro* population of expanded NK cells ~~or cell line~~ of claim 12, wherein the *in vitro* population of expanded NK cells exhibit increased expression of SCUBE1 , MY07A, KLF3, WIPF3, and EPHA1; or wherein the population of expanded NK cells exhibit decreased expression of CD300A, SGSM1 , SMAD3, TBX21, GZMK, TGFBR3, and GZMA ~~have a gene expression profile substantially similar to that shown in Figure 12~~.

17. The *in vitro* population of expanded NK cells ~~or cell line~~ of claim 12, wherein the *in vitro* population of expanded NK cells are prepared by the *in vitro* activation of natural killer cells in the presence of TGF-β ~~TGF-b~~.

18. The *in vitro* population of expanded NK cells ~~or cell line~~ of claim 12, wherein the *in vitro* population of expanded NK cells are human NK cells.

19. The *in vitro* population of expanded NK cells ~~or cell line~~ of claim 12, wherein the *in vitro* population of expanded NK cells are canine NK cells.

20. A method of making a TGF-β ~~TGF-^~Superfamily Imprinted Natural Killer (TGFβi NK ~~TORbï NK~~) cell line, comprising the *in vitro* activation of natural killer cells in the presence of leukemia feeder cells and TGF-β ~~a TGF-b- Superfamily cytokine~~.

~~21. The method of claim 20, wherein the TGFβi NK cell line is activated in the presence of TGF-β.~~

~~22. The method of claim 20, further comprising the *in vitro* activation of natural killer cells in the presence of leukemia feeder cells.~~

~~23~~21. The method of claim ~~22~~20, wherein the leukemia feeder cells are K562 feeder cells.

~~24~~22. The method of claim ~~23~~21, wherein the K562 feeder cells are genetically modified to express 4-1BBL and membrane-bound IL-21 ~~costimulatory proteins and/or cytokines~~.

~~25~~23. The method of claim 20, further comprising the *in vitro* activation of the natural killer cells in the presence of an NK-stimulating exosome or NK-stimulating nanoparticle.