## CLAIMS

1. An engineered immune cell defective for Suv39h1 for use in adoptive cellular therapy of cancer, wherein the Suv39h1 expression and/or activity has been selectively blocked or inhibited, and wherein said engineered immune cell:

- is a T cell, a NK cell, or a T cell progenitor, and

- further comprises one or more genetically engineered antigen receptors that specifically bind a target antigen.

2. The engineered immune cell defective for Suv39h1 for use according to claim 1, wherein the SUV39h1 gene has been repressed or disrupted.

3. The engineered immune cell defective for Suv39h1 for use according to claim 2, wherein gene repression or disruption is achieved by gene silencing, knockdown, knockout, knock-in and/or gene disruption techniques, such as gene editing.

4. The engineered immune cell defective for Suv39h1 for use according to claim 2 or 3, wherein Suv39h1 gene repression or disruption involves deletion of the entire gene, exon, or region, replacement with an exogenous sequence, and/or mutation by frameshift or missense mutation within the gene

5. The engineered immune cell for use according to any one of claims 1 to 4, wherein the T cell is a $CD4^+$ T cell, a $CD8^+$ T cell, or a $CD4^+/CD8^+$ T cell..

6. The engineered immune cell for use according to any one of claims 1 to 5, wherein the cell is autologous.

7. The engineered immune cell for use according to any one of claims 1 to 5, wherein the cell is allogenic.

8. The engineered immune cell for use according to any one of claims 1 to 7, wherein the target antigen is expressed on cancer cells and/or is a universal tumor antigen.

9. The engineered immune cell for use according to any one of claims 1 to 8, wherein the one or more genetically engineered antigen receptor is a T cell receptor (TCR) or a chimeric antigen receptor (CAR) including one or more antigen binding molecules in their extracellular portion.

10. The engineered immune cell for use according to any one of claims 1 to 9, wherein the cell further expresses at least a second genetically engineered receptor that recognizes a different antigen.

11. The engineered immune cell for use according to any one of claims 1 to 10, which is included in a pharmaceutical composition.

12. The engineered immune cell or a composition comprising thereof for use according to any one of claims 1 to 11, wherein said cell or composition is to be administered in combination with an immune checkpoint modulator.

13. The engineered immune cell or a composition comprising thereof for use according to claim 12, wherein the immune checkpoint modulator is selected from anti-PD1 or anti-PDL1.

14. A method of producing a genetically engineered immune cell as defined in any one of claims 1 to 13, comprising the inhibition of the expression and/or activity of Suv39h1 in the immune cell; and the introduction in the said immune cell of one or more genetically engineered antigen receptors that specifically bind to a target antigen.

15. Use of a cell as defined in any one of claims 1 to 14, in the manufacture of a medicament, for use in adoptive cellular therapy of cancer.