WHAT IS CLAIMED IS:

1. Use of a LSD inhibitor and a PD-1 binding antagonist in the manufacture of a medicament for enhancing T-cell function in a subject, wherein T-cells of the subject have aberrant expression of nuclear LSD, wherein the LSD inhibitor and the PD-1 binding antagonist are formulated for concurrent administration, wherein the LSD inhibitor is an inhibitor of LSD nuclear translocation and wherein the PD-1 binding antagonist is an anti-PD-1 antagonist antibody.

2. The use of claim 1, wherein the enhanced T-cell function includes any one or more of elevated biomarkers of T-cell activation and effector capacity (e.g., IFN-γ, TNF-α, Ki67 and TBET), increased proliferation of T-cells, including effector T-cells and/or memory T-cells, increased activation of T-cells including $CD4^+$ and $CD8^+$ T-cells, increased recognition of an antigen or an antigen peptide derived from an antigen in the context of MHC class II molecules by T-cell receptors, increased recognition of an antigen or an antigen peptide derived from an antigen in the context of MHC class I molecules by T-cell receptors, increased elimination of cells presented in the context of MHC class I molecules and increased cytolytic killing of antigen expressing target cells.

3. Use of a LSD inhibitor and a PD-1 binding antagonist in the manufacture of a medicament for treating or delaying the progression of cancer or for treating infection in a subject, wherein T-cells of the subject have aberrant expression of nuclear LSD, wherein the LSD inhibitor and the PD-1 binding antagonist are formulated for concurrent administration, wherein the LSD inhibitor is an inhibitor of LSD nuclear translocation and wherein the PD-1 binding antagonist is an anti-PD-1 antagonist antibody.

4. The use of any one of claims 1 to 3, wherein the subject has cancer that is resistant to one or more PD-1 binding antagonists.

5. The use of any one of claims 1 to 4, wherein the T-cells are characterized by any one or more of: (1) expressing nuclear LSD at a higher level than the level of expression of TBET in the same T-cells, (2) expressing nuclear LSD at a higher level than in an activated T-cell; (3) exhibiting T-cell exhaustion or anergy; (4) expressing a higher level of EOMES than TBET; (5) having elevated expression of PD-1; (6) are $CD8^+$ T-cells; (7) are tumor-infiltrating lymphocytes; (8) are circulating lymphocytes; (9) decreased responsiveness to antigenic stimulation, suitably resulting in ineffective control of a pathogen or tumor; (10) increased inhibitory signal transduction through PD-1; and (11) decreased ability to secrete cytokines, proliferate, or execute cytolytic activity.

6. Use of a LSD inhibitor and a PD-1 binding antagonist in the manufacture of a medicament for treating or delaying the progression of cancer, wherein the cancer is resistant to one or more PD-1 binding antagonists, wherein the LSD inhibitor and the PD-1 binding antagonist are formulated for concurrent administration, wherein the LSD inhibitor is an inhibitor of LSD nuclear translocation and wherein the PD-1 binding antagonist is an anti-PD-1 antagonist antibody.

7. The use of any one of claims 1 to 6, wherein the LSD inhibitor is a peptide corresponding to the nuclear localization site of LSD.

8. The use of claim 7, wherein the LSD inhibitor is an isolated or purified proteinaceous molecule represented by formula XIX:

$Z_1RRTX_1RRKRAKVZ_2$

wherein:

"Z_1" and "Z_2" are independently absent or are independently selected from at least one of a proteinaceous moiety comprising from about 1 to about 50 amino acid residues (and all integer residues in between), and a protecting moiety; and "X_1" is selected from small amino acid residues, including S, T, A, G and modified forms thereof.

9. The use of claim 8, wherein "X_1" is selected from S and A.

10. The use of claim 8 or claim 9, wherein "Z_1" is a proteinaceous molecule represented by formula XX:

$X_2X_3X_4$ (XX)

wherein:

"X_2" is absent or is a protecting moiety;

"X_3" is absent or is selected from any amino acid residue; and

"X_4" is selected from any amino acid residue.

11. The use of claim 10, wherein "X_3" is selected from basic amino acid residues including R, K and modified forms thereof.

12. The use of claim 10 or claim 11, wherein "X_4" is selected from aromatic amino acid residues, including F, Y, W and modified forms thereof.

13. The use of any one of claims 10 to 12, wherein "Z_2" is absent.

14. The use of any one of claims 10 to 13, wherein the isolated or purified proteinaceous molecule of formula XIX comprises, consists or consists essentially of an amino acid sequence represented by SEQ ID NO: 1, 2 or 3:

RRTSRRKRAKV [SEQ ID NO: 1];
RRTARRKRAKV [SEQ ID NO: 2]; or
RWRRTARRKRAKV [SEQ ID NO: 3].

15. The use of any one of claims 7 to 14, wherein the proteinaceous molecule of formula XIX further comprises at least one membrane permeating moiety.

16. The use of claim 15, wherein the membrane permeating moiety is a lipid moiety.

17. The use of claim 15 or claim 16, wherein the membrane permeating moiety is a myristoyl group.

18. The use of any one of claims 15 to 17, wherein the membrane permeating moiety is conjugated to the N- or C-terminal amino acid residue of the proteinaceous molecule of formula XIX.

19. The use of any one of claims 1 to 18, wherein the anti-PD-1 antagonist antibody is selected from nivolumab, pembrolizumab, lambrolizumab and pidilizumab.

20. The use of any one of claims 1 to 19, wherein an ancillary agent for treating, or for aiding in the treatment of, a T-cell dysfunctional disorder is to be further administered concurrently to the subject.

21. The use of claim 20, wherein the ancillary agent is a chemotherapeutic agent.

22. The use of claim 21, wherein the chemotherapeutic agent is an agent that targets rapidly dividing cells and/or disrupt the cell cycle or cell division.

23. The use of claim 21 or claim 22, wherein the chemotherapeutic agent is a cytotoxic agent.

24. The use of claim 23, wherein the cytotoxic agent is taxane.

25. The use of claim 24, wherein the taxane is paclitaxel or Abraxane.

26. The use of any one of claims 3 to 25, wherein the cancer is skin cancer (e.g., melanoma), lung cancer, breast cancer, ovarian cancer, gastric cancer, bladder cancer, pancreatic cancer, endometrial cancer, colon cancer, kidney cancer, esophageal cancer, prostate cancer, colorectal cancer, glioblastoma, neuroblastoma, or hepatocellular carcinoma.

27. The use of claim 26, wherein the cancer is a metastatic cancer.

28. The use of claim 27, wherein the metastatic cancer is metastatic breast cancer, metastatic liver cancer or metastatic lung cancer.

29. The use of any one of claims 1 to 28, wherein the LSD inhibitor and PD-1 binding antagonist are to be concurrently administered with an ancillary agent for treating, or for aiding in the treatment of, a T-cell dysfunctional disorder.