THE CLAIMS DEFINING THE INVENTION ARE AS FOLLOWS:

1. An LSD1 inhibitor for use in enhancing an immune response in a subject to a target antigen by an immune-modulating agent.

2. The LSD1 inhibitor for use according to claim 1, wherein the immune-modulating agent is selected from an antigen that corresponds to at least a portion of the target antigen, an antigen-binding molecule that is immuno-interactive with the target antigen, and an immune-modulating cell that modulates an immune response to the target antigen.

3. The LSD1 inhibitor for use according to claims 1 or claim 2, wherein the subject has elevated PD-L1 and/or PD-L2 activity.

4. The LSD1 inhibitor for use according to claim 3, wherein the subject has a metastatic cancer or an infection.

5. The LSD1 inhibitor for use according to claim 4, wherein the metastatic cancer is metastatic breast cancer.

6. The LSD1 inhibitor for use according to any one of claims 1-5, wherein the LSD1 inhibitor is an isolated or purified proteinaceous molecule comprising, consisting or consisting essentially of a sequence corresponding to residues 108 to 118 of LSD1.

7. The LSD1 inhibitor for use according to claim 6, wherein the isolated or purified proteinaceous molecule is an isolated or purified proteinaceous molecule represented by Formula I:

$Z_1RRTX_1RRKRAKVZ_2$ (I)

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.

8. The LSD1 inhibitor for use according to claim 7, wherein "X_1" is selected from S and A.

9. The LSD1 inhibitor for use according to claim 7 or claim 8, wherein "Z_1" is a proteinaceous molecule represented by Formula II:

$X_2X_3X_4$ (II)

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.

10. The LSD1 inhibitor for use according to claim 9, wherein "X_3" is selected from basic amino acid residues including R, K and modified forms thereof.

11. The LSD1 inhibitor for use according to claim 9 or claim 10, wherein "X_4" is selected from aromatic amino acid residues, including F, Y, W and modified forms thereof.

12. The LSD1 inhibitor for use according to any one of claims 7-11, wherein "Z_2" is absent.

13. The LSD1 inhibitor for use according to any one of claims 7-12, wherein the isolated or purified proteinaceous molecule of Formula I 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].

14. The LSD1 inhibitor for use according to any one of claims 7-13, wherein the proteinaceous molecule of Formula I further comprises at least one membrane permeating moiety.

15. The LSD1 inhibitor for use according to claim 14, wherein the membrane permeating moiety is a myristoyl group.

16. Use of an isolated or purified proteinaceous molecule comprising, consisting or consisting essentially of a sequence corresponding to residues 108 to 118 of LSD1 in the manufacture of a medicament for altering at least one of (i) formation; (ii) proliferation; (iii) maintenance; (iv) EMT; or (v) MET of a PKC and/or LSD1 overexpressing cell.

17. Use of an isolated or purified proteinaceous molecule comprising, consisting or consisting essentially of a sequence corresponding to residues 108 to 118 of LSD1 in the manufacture of a medicament for treating or preventing a cancer in a subject, wherein the cancer comprises at least one PKC and/or LSD1 overexpressing cell.

18. An isolated or purified proteinaceous molecule comprising a sequence corresponding to residues 108 to 118 of LSD1 for use in inhibiting the phosphorylating activity of a PKC in a PKC overexpressing cell.

19. An isolated or purified proteinaceous molecule comprising, consisting or consisting essentially of a sequence corresponding to residues 108 to 118 of LSD1 for use in altering at least one of (i) formation; (ii) proliferation; (iii) maintenance; (iv) EMT; or (v) MET of a PKC and/or LSD1 overexpressing cell.

20. An isolated or purified proteinaceous molecule comprising, consisting or consisting essentially of a sequence corresponding to residues 108 to 118 of LSD1 for use in treating or preventing a cancer in a subject, wherein the cancer comprises at least one PKC and/or LSD1 overexpressing cell.

21. An isolated or purified proteinaceous molecule comprising, consisting or consisting essentially of a sequence corresponding to residues 108 to 118 of LSD1 for use in inhibiting an activity of LSD1.

22. An isolated or purified proteinaceous molecule comprising, consisting or consisting essentially of a sequence corresponding to residues 108 to 118 of LSD1 for use in inhibiting the nuclear translocation of LSD1 in an LSD1 overexpressing cell.

23. The use according to claim 16 or claim 17, or the isolated or purified proteinaceous molecule comprising a sequence corresponding to residues 108 to 118 of LSD1 for use according to any one of claims 18-20 and 22, wherein the PKC and/or LSD1 overexpressing cell is a cancer stem cell or a non-cancer stem cell tumor cell.

24. The use according to claim 23 or the isolated or purified proteinaceous molecule comprising a sequence corresponding to residues 108 to 118 of LSD1 for use according to claim 23, wherein the PKC and/or LSD1 overexpressing cell is a cancer stem cell tumor cell.

25. The use according to any one of claims 16, 17, 23 and 24, or the isolated or purified proteinaceous molecule comprising a sequence corresponding to residues 108 to 118 of LSD1 for use according to any one of claims 18-24, wherein the isolated or purified proteinaceous molecule is the isolated or purified proteinaceous molecule represented by Formula I as defined in any one of claims 7-15.

26. An isolated or purified proteinaceous molecule represented by Formula I:

$Z_1RRTX_1RRKRAKVZ_2$ (I)

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;

wherein the proteinaceous molecule is other than a proteinaceous molecule consisting of the amino acid sequence of SEQ ID NO: 4:

EGRRTSRRKRAKVE [SEQ ID NO: 4].

27. The isolated or purified proteinaceous molecule according to claim 26, wherein "X_1" is selected from S and A.

28. The isolated or purified proteinaceous molecule according to claim 26 or claim 27, wherein "Z_1" is a proteinaceous molecule represented by Formula II:

$X_2X_3X_4$ (II)

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.

29. The isolated or purified proteinaceous molecule according to claim 28, wherein "X_3" is selected from basic amino acid residues including R, K and modified forms thereof.

30. The isolated or purified proteinaceous molecule according to claim 28 or claim 29, wherein "X_4" is selected from aromatic amino acid residues, including F, Y, W and modified forms thereof.

31. The isolated or purified proteinaceous molecule according to any one of claims 26-30, wherein "Z_2" is absent.

32. The isolated or purified proteinaceous molecule according to any one of claims 26-31, wherein the isolated or purified proteinaceous molecule of Formula I 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].

33. The isolated or purified proteinaceous molecule according to any one of claims 26-32, wherein the proteinaceous molecule of Formula I further comprises at least one membrane permeating moiety.

34. The isolated or purified proteinaceous molecule according to claim 33, wherein the membrane permeating moiety is a myristoyl group.

35. A composition comprising a proteinaceous molecule according to any one of claims 26-34 and a pharmaceutically acceptable carrier or diluent.