

CLAIMS

We claim:

1. A phosphatidylserine-binding (PS-binding) conjugate, wherein the conjugate comprises at least one PS-binding domain, and wherein the conjugate comprises at least one Toll-like Receptor binding (TLR-binding) domain.
2. The conjugate of claim 1, wherein the PS-binding domain is a peptide sequence.
3. The conjugate of claim 1, wherein the TLR-binding domain is a TLR agonist.
4. The conjugate of claim 2, wherein the conjugate comprises more than two PS-binding peptide sequences.
5. The conjugate of claim 4, wherein the PS-binding peptide sequences are selected from the group consisting of: LIKKPF (SEQ ID NO:1), PGDLSR (SEQ ID NO:2), CLIKKPF (SEQ ID NO:3), CPGDLSR (SEQ ID NO:4), FNFRLKAGAKIRFG (SEQ ID NO:5), FFXFLKXXXKXR (SEQ ID NO:6), TLVSSL (SEQ ID NO:7), CLSYYPSTYC (SEQ ID NO:8), GEGKGGr (SEQ ID NO:9), gegkggr (SEQ ID NO:10), GEGr (SEQ ID NO:11), gegr (SEQ ID NO:12), GE, ge, RGEGR (SEQ ID NO:13), rggr (SEQ ID NO:14), and Cyclo(RKKKWFGC) (SEQ ID NO:15); wherein a capital letter indicates a L-amino acid, and a non-capitalized letter indicates a D-amino acid, and wherein "X" represents any L-amino acid.
6. The conjugate of claim 5, wherein the PS-binding peptide sequence is GEGKGGr (SEQ ID NO:9).
7. The conjugate of claim 6, wherein the conjugate comprises a tetramer of GEGKGGr (SEQ ID NO:9).
8. The conjugate of claim 3, wherein the TLR agonist is selected from the group consisting of: Pam3Cys, PAM3CSK4, PAM3CSK4, SMP-105, CBLB612, IPH 3102, ARNAX, MPLA, MALP-2, Zymosan, Poly (I:C), Poly-ICLC, Poly-IC12U, GLA-SE, BNT411, AS04, AS15, OK-432, CBLB502, M-VM3, Bistriazolyl,

VTX1463, MGN1703, CpG-7909, IMO2055, dSLIM, SD-101, KSK-CpG, ODN M362, CpG-1826, LPS, Flagellin, Imiquimod, Motolimod, Rintatolimod, CL264, Imidazoquinoline, Resiquimod, Tilsotolimod, UC-1V150, CADI-05, GNKG168, RO7119929, SHR2150, TransCon, CMP-001, and CpG ODN.

9. The conjugate of claim 8, wherein the TLR agonist is CL264.
10. The conjugate of claim 7, wherein the TLR-binding domain is the TLR agonist CL264.
11. The conjugate of claim 1, comprising a linker moiety linking the PS-binding domain to the TLR-binding domain.
12. Use of the conjugate of any one of claims 1-11 in the manufacture of a medicament for treating a subject with cancer, wherein the medicament is to be administered to the subject.
13. The use of claim 12, wherein the cancer is a solid cancer or a solid tumor.
14. The use of claim 12, wherein the cancer is a blood-based cancer.
15. The use of claim 12, wherein the cancer is colon cancer.
16. The use of claim 14, wherein the cancer is leukemia.
17. The use of claim 12, wherein the subject is human.
18. The use of claim 12, wherein an anti-cancer agent, and/or an immunologic agent is to be further administered to the subject.
19. The use of claim 18, wherein the anti-cancer agent is a serine/threonine kinase inhibitor.
20. The use of claim 19, wherein the serine/threonine kinase inhibitor is a peptide compound comprising (d-Bpa)(d-Ser)(d-Trp)(d-Ser)(d-Phe-2,3,4,5,6-F)(d-Cha)(d-Arg)(d-Arg)(d-Arg)(d-Gln)(d-Arg)(d-Arg) (SEQ ID NO:16).
21. The use of claim 18, wherein the immunologic agent is an antibody.

22. The use of claim 21, wherein the antibody is an anti-CTLA-4, anti-PD1, anti-PD-L1, anti-PDL2, anti-VISTA, anti-TIM3, anti-LAG-3 or anti-BTLA antibody.
23. The use of claim 22, wherein the antibody is an anti-CTLA-4 antibody.
24. The use of claim 18, wherein a platinum-containing drug is to be further administered.
25. The use of claim 24, wherein the platinum-containing drug is cisplatin.
26. The conjugate of any one of claims 1-11 for use as a medicament.