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(54) Title: SURFACE MODIFIED RED BLOOD CELLS AND METHODS OF GENERATING THE SAME

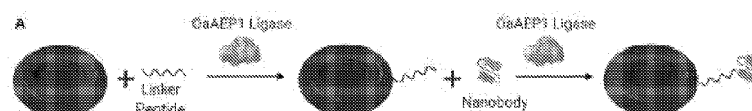


Figure 2

(57) Abstract: The present invention relates to methods modifying cell surface markers of red blood cells (RBCs) and uses of the same. In particular, the method comprises contacting an RBC with a peptide in the presence of a ligase, under suitable conditions and for sufficient time to allow ligation of the peptide to the RBC to form an RBC-peptide conjugate. In one embodiment, the ligase is OaAEP1 ligase. The RBC-peptide conjugate may be further contacted with an effector molecule under suitable conditions and for sufficient time for conjugation of the effector molecule to the RBC-peptide to form an RBC-peptide-effector molecule conjugate.

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