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(54) Title: ENGINEERED EXOSOMES FOR TREATMENT OF ALOPECIA AND/OR CANITIES

(57) Abstract: Disclosed is an engineered exosome, comprising (a) a KGF polypeptide, fused to a first anchoring polypeptide, (b) a VEGF-Apolypeptide, fused to a second anchoring polypeptide, and (c) a Wnt family member polypeptide involved in Wnt/ β -catenin signaling pathway, fused to a third anchoring polypeptide, wherein (a), (b) and (c) are anchored on a membrane of the exosome via the first, second and third anchoring polypeptide, respectively, and wherein the KGF polypeptide, the VEGF-Apolypeptide and the Wnt family member polypeptide are exposed on an outer surface of the membrane of the exosome. Also disclosed are compositions, nucleic acid constructs, and uses of the exosome in treating alopecia and/or canities.



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