Table S2 Summary of biomimetic nanoparticles and their application for oral cancer therapy.

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| Types | Membrane | Material core | Preparation method | Mechanism | Cancer model | Application | Refs |
| Leutusome: integrating plasma membrane components of leukocytes and tumour cells | CCs; leukocytes | Paclitaxel | Extrusion and sonication | The Leukocyte membrane reduced the elimination of leutusome by the MPS and extended its circulation in the blood, while the composite tumour cell membrane helped it actively accumulate in the homologous tumour via homotypic tumour binding property | Athymic nude mice (both male and female) of HNSCC were established by subcutaneously injecting YFP-expression HN12 cells or HN12 cells to the flank of athymic nude mice | Chemotherapy | [81] |
| FeTCPP/Fe2O3@RBC nanorice | RBCs | FeTCPP/Fe2O3 | Extrusion | An RBC membrane was used to disguise the nanorice to improve blood circulation and tissue residence duration in the body. Finally, the AS1411 aptamer targeting molecule was tweaked to obtain a high level of photosensitizers enrichment on a tumour domain | KB cell model; healthy female nude mice which were inoculated subcutaneously with KB cells | PDT/CDT | [86] |
| Asp8[H40-TPZ/IR780@(RBC-H)] | WSU-HN6 cell and RBCs | TPZ and IR780 | Extrusion | WSU-HN6 cell membranes were used to improve targeting ability, red blood cells were designed to evade the immune clearance, mitochondrial photosensitizer IR780 and hypoxia-activated prodrug TPZ for combination therapy | WSU-HN6 cell and HUCEV cell model; a WSU-HN6 female nude  mice tumour model; the mandibular invasion mouse model | PTT, imaging, and chemotherapy | [87] |
| CC-UCNPs | CSCs | UCNPs, particularly lanthanide-doped nanocrystals | Extrusion | The cancer cell membrane coating endowed nanoparticles with the homologous targeting ability and immune escaping | MDA-MB-435 human breast cancer cells, DU 145 human prostate cancer cells, CAL 27 cell line, and HCT 116 human colorectal cancer cells; BALB/c nude mice bearing MDA-MB-435 human breast cancer cells; ICR mice for pharmacokinetics and biodistribution | Imaging | [93] |
| PDTC@GNPs@Pt | PDTCs | Isolation | Extrusion | The PDTC membrane coating endowed nanoparticles with the homologous targeting ability | CAL27; PDTCs; PDX HNSCC mice model | Chemotherapy | [95] |
| AuNR-loaded PLTs (PLT-AuNRs) | PLTs | Gold nanorods | Extrusion and sonication  ; electroporation | Long circulation duo to CD47 expression; accumulation in tumour tissues and targeting ability of PLTs; And coincidently, PTT-mediated heat injures tumour tissues | CAL27; ICR mice; BALB/c nude mice bearing CAL27 tumour xenografts; Tgfbr1/Pten 2cKO mice | PTT | [102] |
| Platelet–cancer stem cell (CSC) hybrid membrane-coated iron oxide magnetic nanoparticle (MN) {[CSC-P]MN} | PLTs, CSCs | Iron oxide | Extrusion and sonication | The homotypic targeting capability of CSC membranes via specific surface adhesion molecules such as CD44, and the immune evasion ability of platelet membranes due to surface markers comprising “don't eat me” proteins such as CD47 | CAL27; BALB/c nude mice bearing CAL27 tumour xenografts; Tgfbr1/Pten 2cKO mice | PTT; MRI | [105] |
| DOX (MOF@DPSCM) | DPSCs | DOX | Extrusion | DOX(MOF@DPSCM) contained CXCR2 can carry DOX to form MOF-DOX@DPSCM and be chemoattracted by the chemokine CXCL8 secreted from the OSCC leading to inhibiting OSCC growth in vitro and in vivo | CAL27; BALB/c nude mice bearing CAL27 tumour xenografts | Chemotherapy | [106] |