SCE 0814 Public Evidence Appendix

Oncology

Literature review date: September 13, 2026

Controlling principle. Oncology cell and extracellular-vesicle evidence must remain product-, cancer-, indication-, route-, objective-, endpoint-, and follow-up-specific. Established transplantation, reparative MSC use, tumor-microenvironment biology, EV biomarkers, and engineered EV drug delivery are distinct domains.

Point-by-point evidence framework

Controlling Point	Evidence focus	Interpretive boundary
Treatment-related tissue injury	Repair of normal tissues injured by chemotherapy, radiation, surgery, transplantation, or combinations.	Improving treatment toxicity is not the same as treating the cancer; symptom benefit and objective tissue restoration must be evaluated separately.
Bone-marrow support	Autologous and allogeneic hematopoietic stem-cell transplantation, marrow reconstitution, and graft-versus-tumor activity.	Established transplant benefit is indication- and regimen-specific and does not establish efficacy for unrelated MSC or EV products.
Tumor microenvironment	Interactions among malignant cells, immune cells, stromal cells, vasculature, extracellular matrix, and signaling networks.	Preclinical stromal or EV effects may support or inhibit tumors depending on context; laboratory findings do not establish a uniform patient-level effect.
Potential tumor-promoting effects	Angiogenesis, trophic signaling, immune modulation, fibroblast support, and transfer of molecular cargo.	Plausible tumor-supporting mechanisms require explicit safety surveillance but should not be presented as proven universal clinical harm.
EVs as biomarkers	Tumor-associated EV proteins, RNAs, lipids, and other cargo measured in liquid-biopsy settings.	Promising diagnostic accuracy requires standardized collection, locked assays, independent validation, and cancer-specific performance before routine use.
Engineered EV drug delivery	EVs modified to carry siRNA, RNA, protein, drug, or targeting ligands to tumors.	Phase I feasibility and target engagement do not establish comparative tumor control, progression-free survival, or overall-survival benefit.

Evidence-handling rules

Positive, negative, null, mixed, and inconclusive findings are weighted by design quality, directness, product identity, oncologic context, comparator, endpoint, and follow-up rather than by whether they favor the intervention.

Mechanistic evidence, development stage, clinical efficacy, safety, regulatory status, guideline position, manufacturing quality, recurrence risk, and long-term oncologic outcomes remain separate analytical dimensions.

Cancer-specific standard care - including surgery, radiation, systemic therapy, immunotherapy, endocrine therapy, established HSCT, supportive care, rehabilitation, and survivorship care - remains the appropriate comparator where indicated.

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