Small Extracellular Vesicles: Emerging Cancer Biomarkers and

Therapeutic Tools

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Small extracellular vesicles (sEVs) carry various messages and signal biomolecules to constitute key features of their parent cells, which make them as highly competitive non-invasive biomarkers for diagnosis/prognosis (*Figure 1*). Additionally, new insights on the biogenesis and molecular functions of sEVs pave the way for novel sEV-based therapeutic strategies as drug carriers and/or for cancer therapies.^[1] In this contribution, I will discuss our recent development of biosensors for highly sensitive detection of cancer-derived sEVs using plasmonic nanomaterial and surface-enhanced Raman scattering (SERS).^[2-4] I will also discuss our discoveries ^[5-6] about the involvement of key molecules in cancer-derived sEVs for cancer diagnosis/prognosis and strategies using sEVs for cancer treatment.



Figure 1. Biogenesis and identification of small extracellular vesicles (sEVs) for diagnosis, prognosis and therapy.^[1]

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