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Exosome as a delivery system- Exosomal signal delivery toward differentiation change

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Abstract

Exosomes are a discrete population of vesicles that are secreted from various cell types to the extracellular media. Characterization of exosomes from different biological samples is useful in understanding of cell-type-specific function and their communication. In order to find out microRNA composition of exosomes that neuronal cell secretes in case of activation by low temperature perception, we used human neuronal cell lines and pancreatic cancer cell lines. Exosomes were isolated from cells and the exosomal miRNA were analyzed using miRNA chip. Furthermore, we investigated whether these exosomes could alter cell differentiation or metastatic potential. In this way, exosomes isolated from neuroblastoma cell line SH-SY5y were identified to alter melanoma cells toward a more differentiated phenotype. Our data suggest a possibility of exosome as a signal delivery system for differentiation or therapeutic direction.

Biography

Seyeon Park graduated from Seoul National University and completed his Ph.D at Seoul National University. She is a professor of Dongduk Women's University. She has published more than 30 papers in reputed journals and serving as an editorial advisory board member of Current Pharmacogenomics and Personalized Medicine