Shedding light on the cell biology of extracellular vesicles

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Abstract

Extracellular vesicles are a heterogeneous group of cell-derived membranous structures comprising exosomes and microvesicles, which originate from the endosomal system or which are shed from the plasma membrane, respectively. They are present in biological fluids and are involved in multiple physiological and pathological processes. Extracellular vesicles are now considered as an additional mechanism for intercellular communication, allowing cells to exchange proteins, lipids and genetic material. Knowledge of the cellular processes that govern extracellular vesicle biology is essential to shed light on the physiological and pathological functions of these vesicles as well as on clinical applications involving their use and/or analysis. However, in this expanding field, much remains unknown regarding the origin, biogenesis, secretion, targeting and fate of these vesicles.

Lien vers l'article