

Table S1. The models of OMVs biogenesis.

Model	Mode of biogenesis	Ref.
Vesiculation via the VacJ/Yrb ATP-binding cassette ABC transporter	The accumulation of phospholipids in the outer membrane's outer leaflet due to the transcriptional silencing or inactivation of the VacJ/Yrb transporter induces the outward curvature and facilitates OMV formation and release	[1-3]
Insertion of molecules into the outer membrane outer leaflet	<p>The insertion of some molecules into the outer membrane outer leaflet can trigger the outward bulging of the outer membrane and promote OMVs formation</p> <p>The insertion of some molecules into the outer membrane outer leaflet (e.g., <i>Pseudomonas aeruginosa</i> (<i>P. aeruginosa</i>) quinolone signal (PQS)) can trigger the outward bulging of the outer membrane and promote OMVs formation</p>	[4-6]
Enrichment of some areas of the outer membrane with specific types of LPS, and/or phospholipids	The presence of specific types of LPS, and/or phospholipids enriched areas in the outer membrane allows the vesiculation and OMV release	[7-9]
Accumulation of misfolded proteins, peptidoglycan fragments, and other molecules inside the periplasmic space	The accumulation of these molecules inside the periplasmic space increases the local pressure on the outer membrane that result in OMV formation	[10-13]
Disruption of crosslinks between the peptidoglycan layer and lipoproteins	The disruption of crosslinks between the peptidoglycan layer and lipoproteins allows the outer membrane in these regions to curve and form OMVs	[14-16]

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