# Next-Generation Extracellular Vesicle Therapeutics

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Extracellular vesicles are nano-sized biomolecular packages (released locally and systemically) that are crucial for intercellular communication. Extracellular vesicles have promising potential to be leveraged and engineered to provide a paradigm shift in cell-free therapy. Unresolved challenges in the field include scalable manufacturing, understanding therapeutic/pathological mechanisms, and capacity to use extracellular vesicles for drug delivery. The Wolfram Laboratory is leveraging innovations in manufacturing, biological mechanisms, and drug loading of extracellular vesicles to develop therapeutics to alter the trajectory of disease, improve patient outcomes, and prolong healthy lifespan.