Small Extracellular Vesicles/Exosomes (sEVs) in Diagnostic and Treatment

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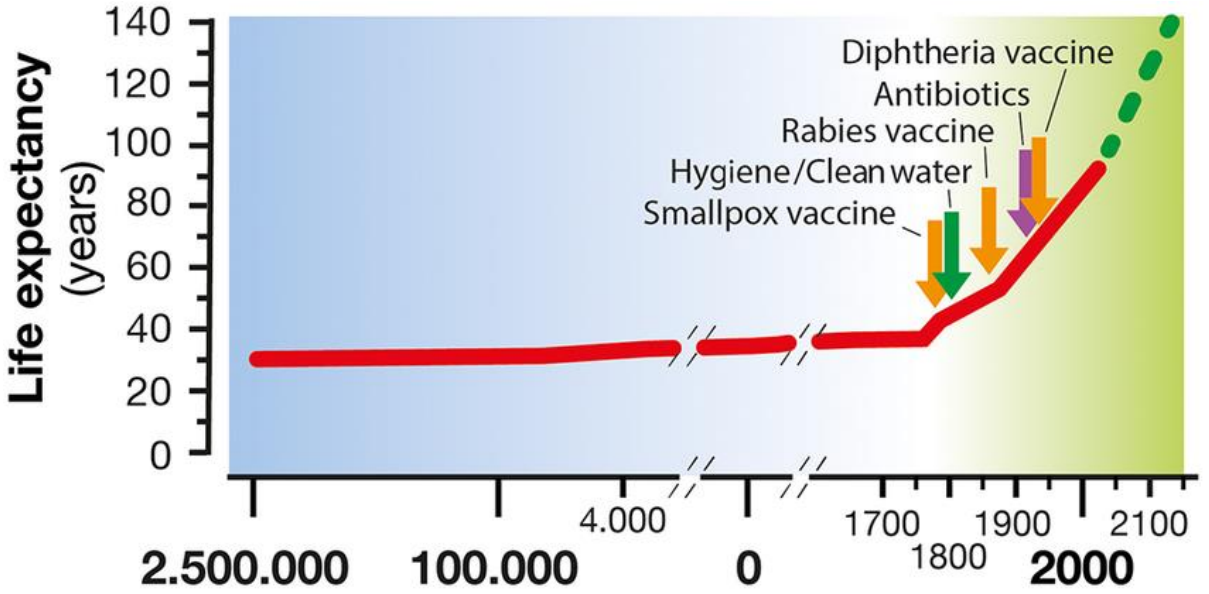
History of Medicine – Microscopic View

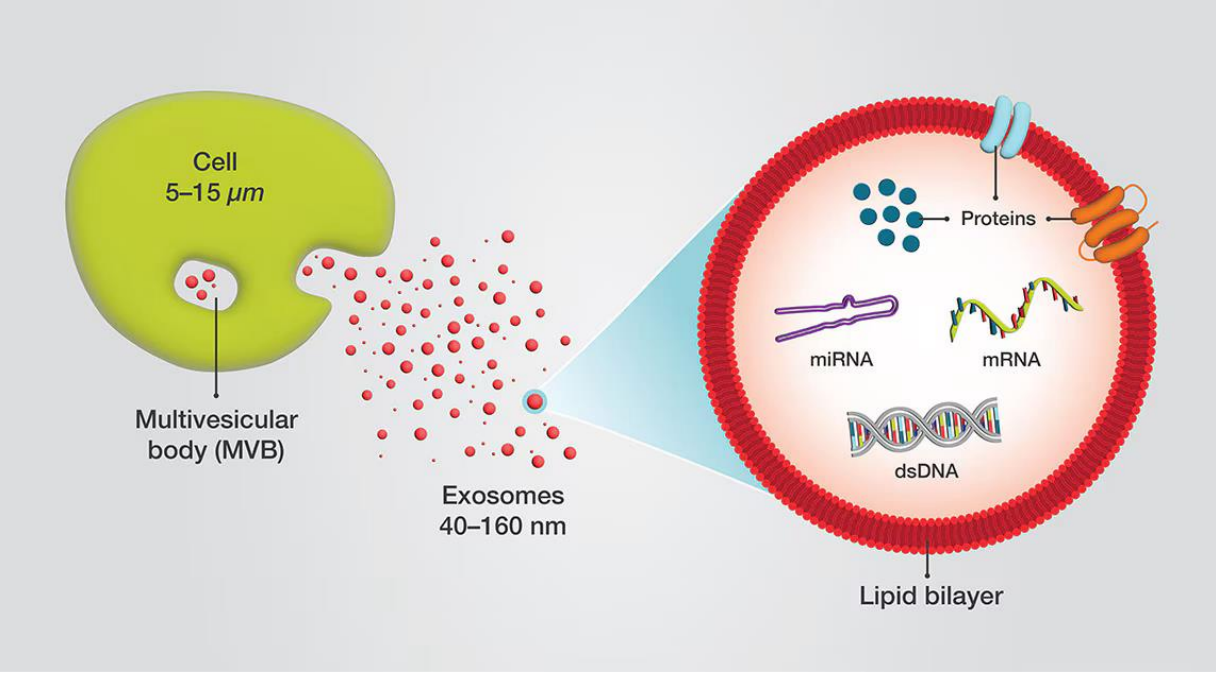


Microorganism were discovery between 1665 and 1683 by Robert Hooke and Antoni van Leeuwenhoe using a microscope

Rosini et al., 2020

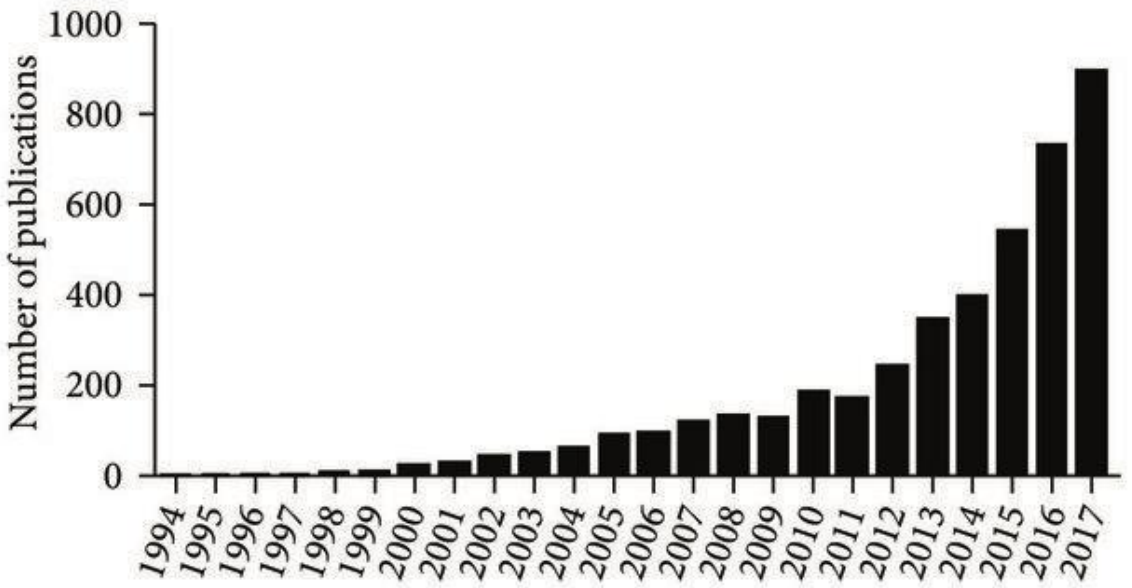
Nanoscopic view in Medicine

Exosomes/Small Extracellular Vesicles



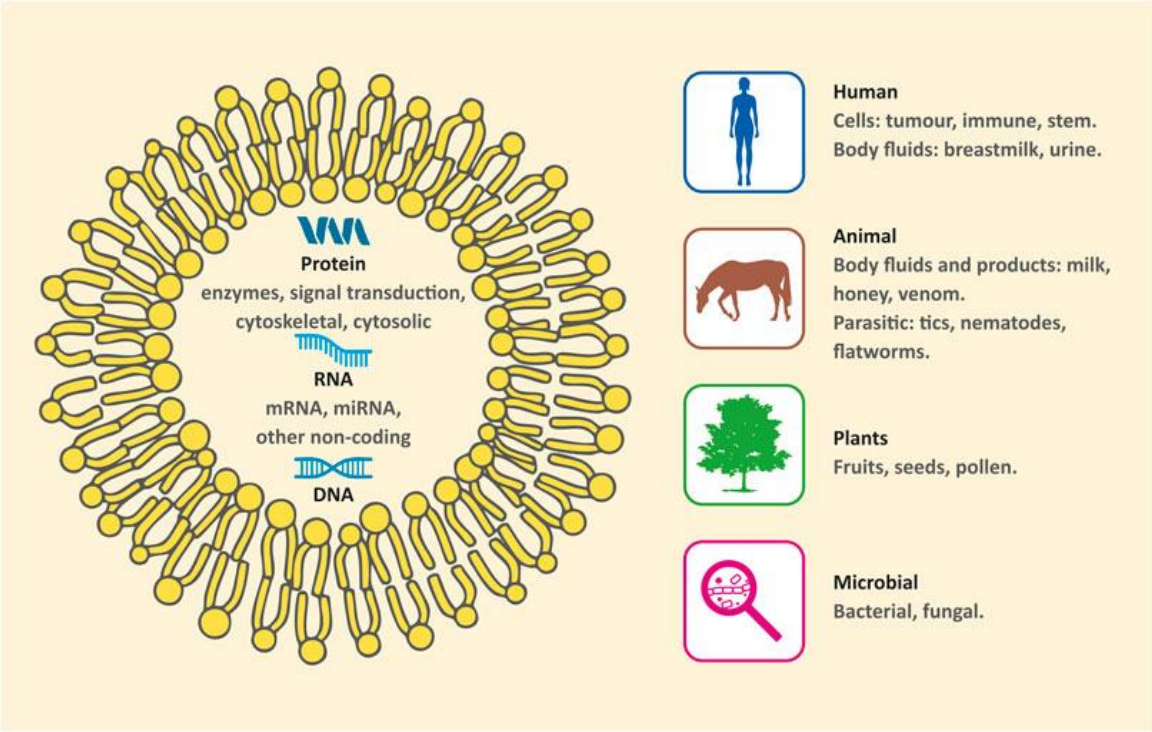
Thermofisher.com

Extracellular vesicles publications by year

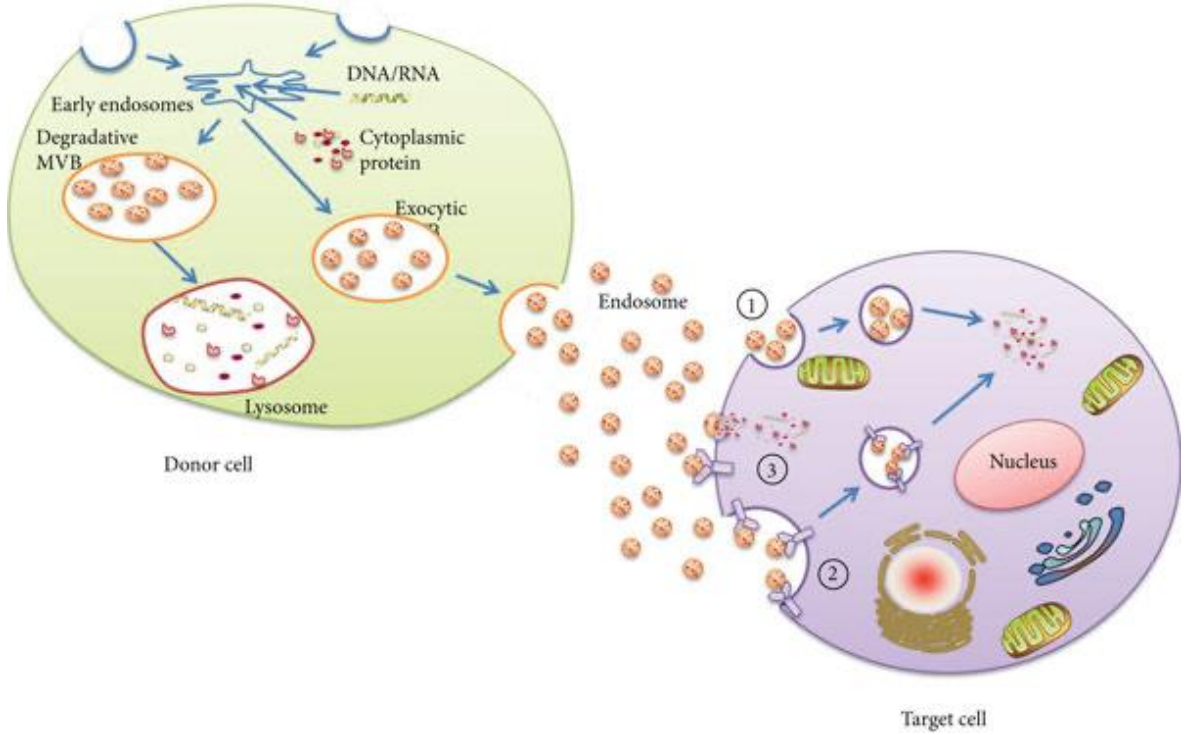


Pubmed.gov

sEVs Source and Function

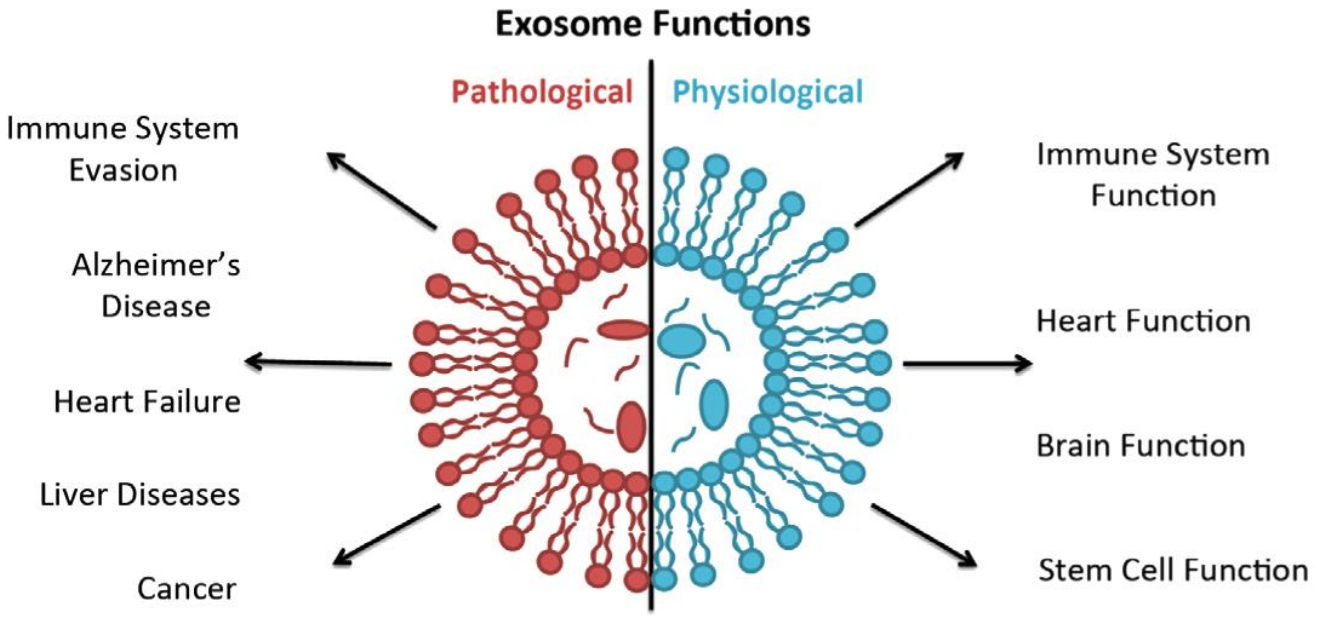


Janouskova et al., 2020



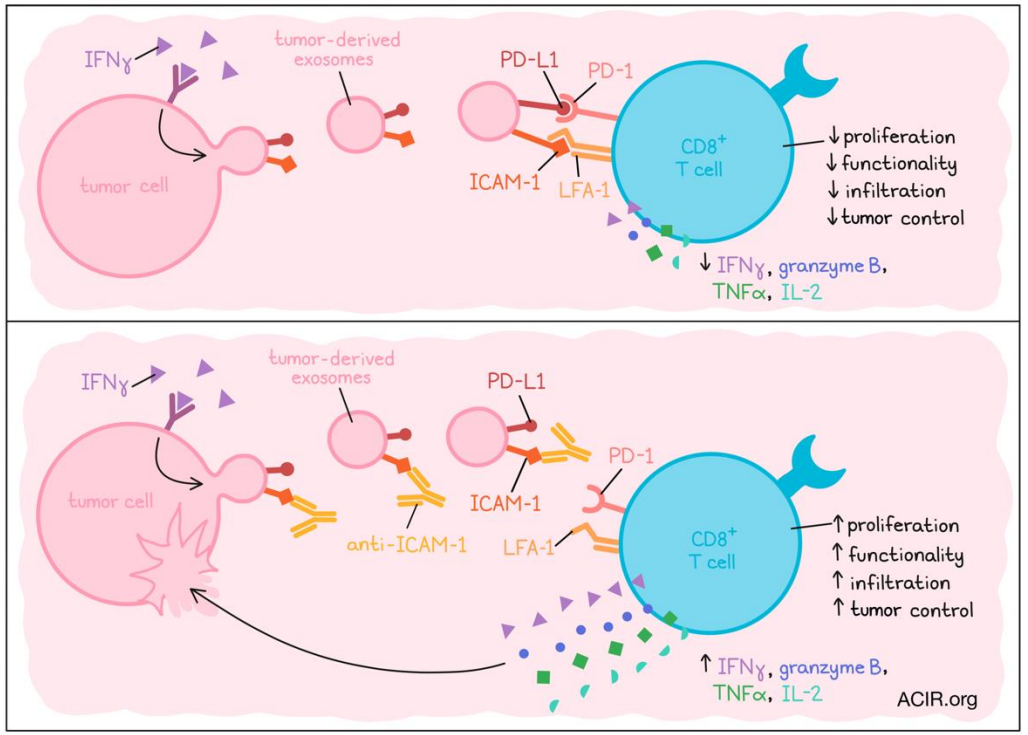
Guo et al., 2020

sEVs in Physiology and Pathology



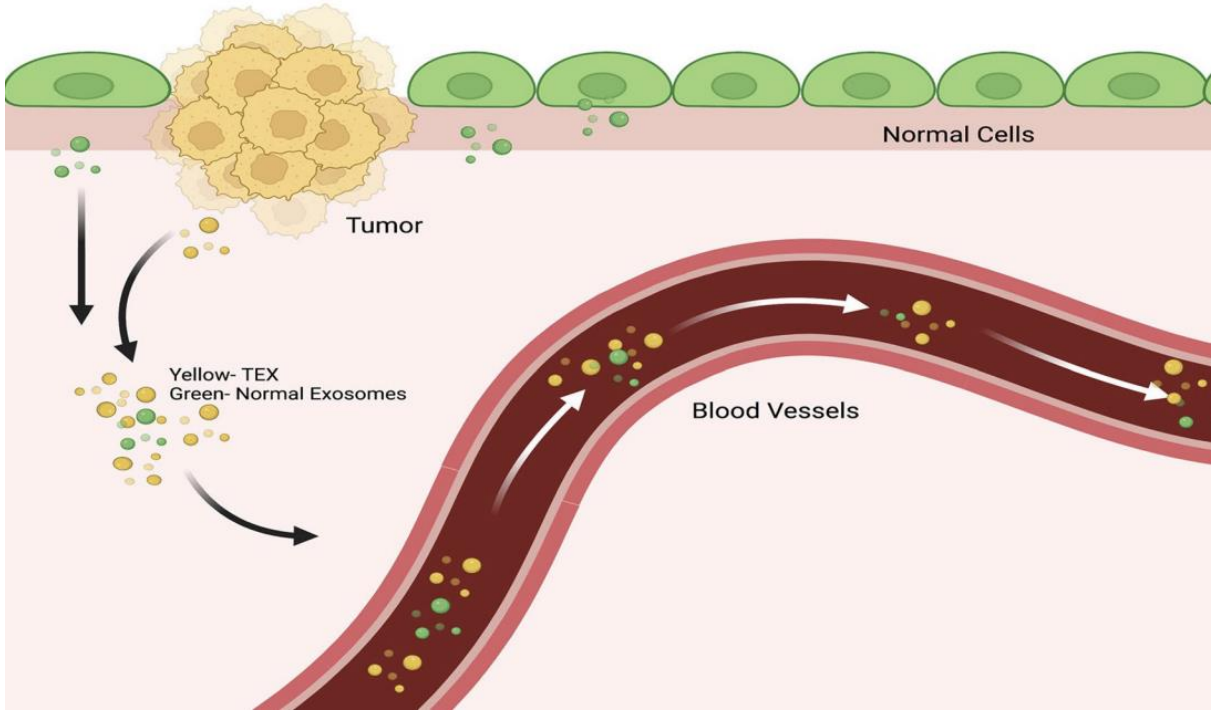
Allison L. Isola and Suzie Chen, 2017

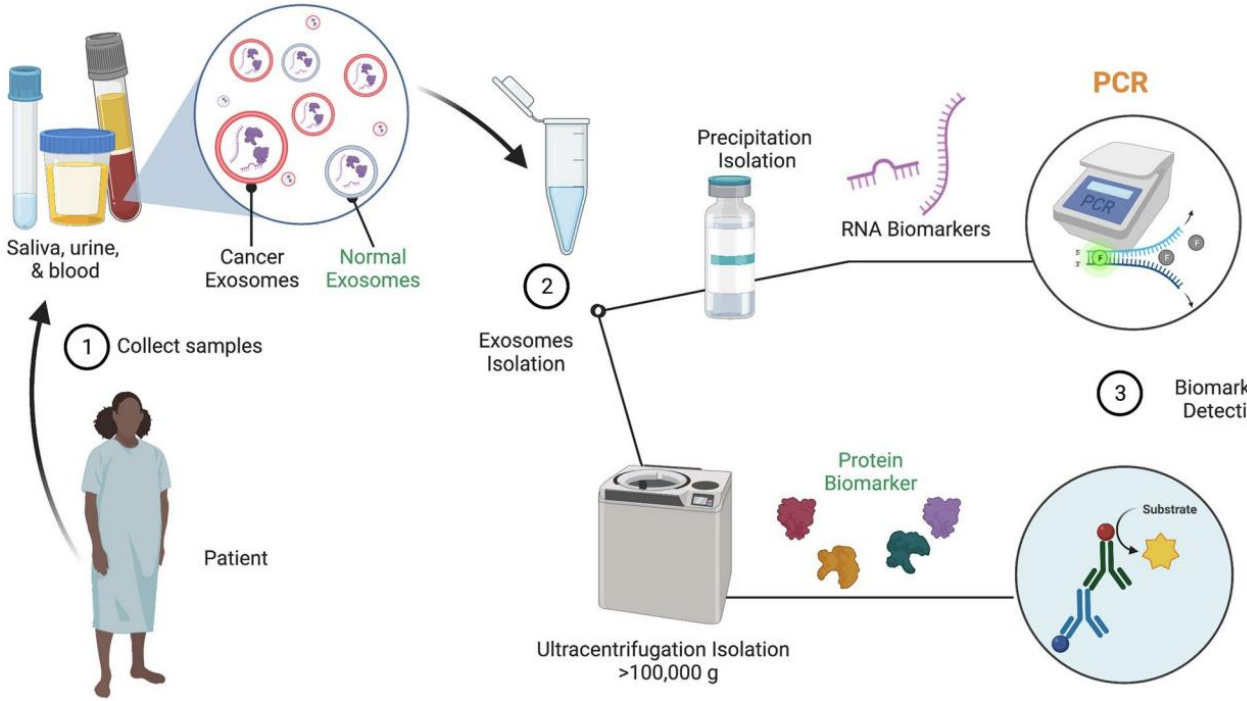
Tumor Exosomes Can Suppress Immune Cells



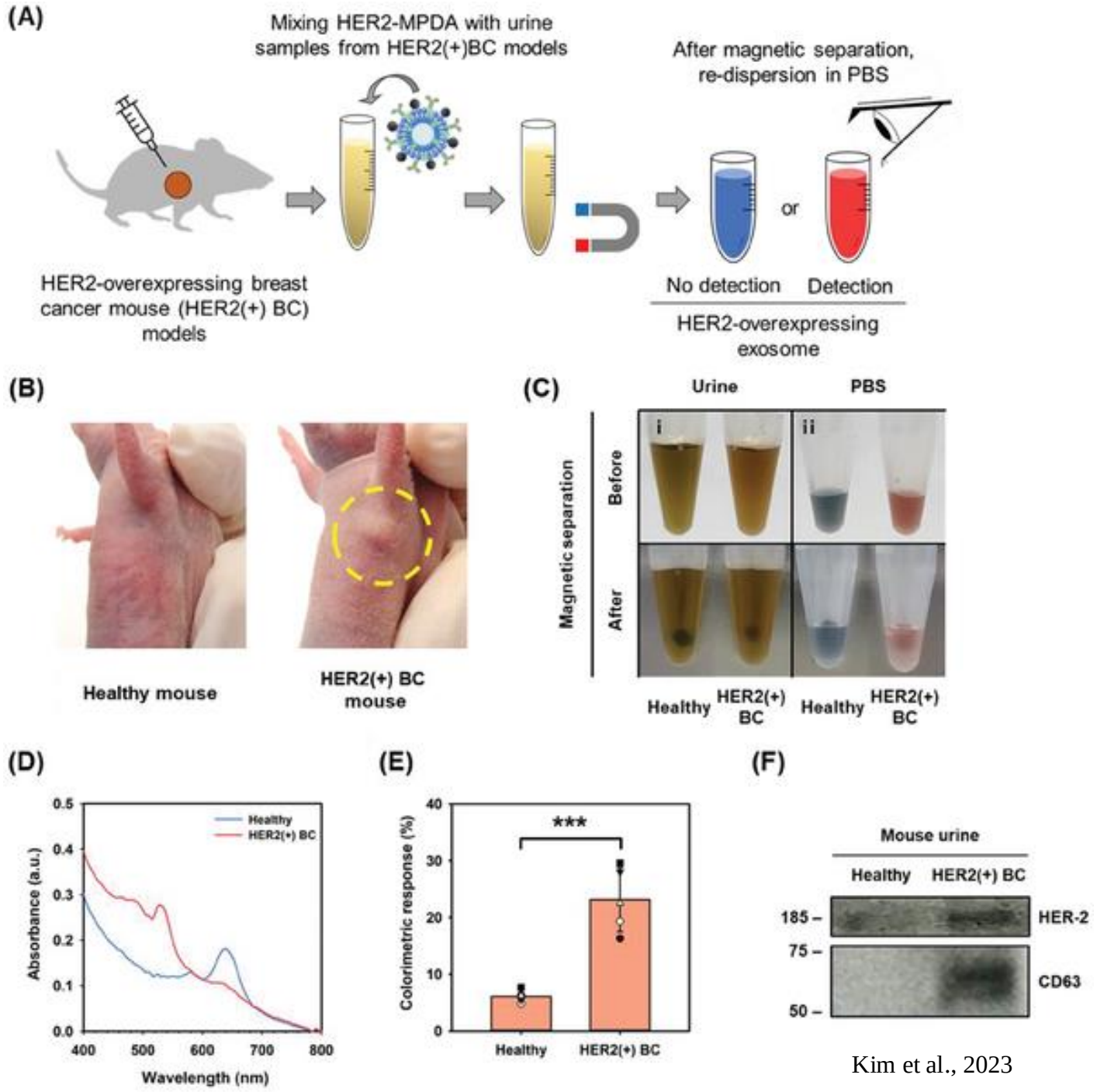
sEVs in Diagnostic

Small extracellular Vesicles (sEVs) can be use in liquid biopsy for early cancer detection





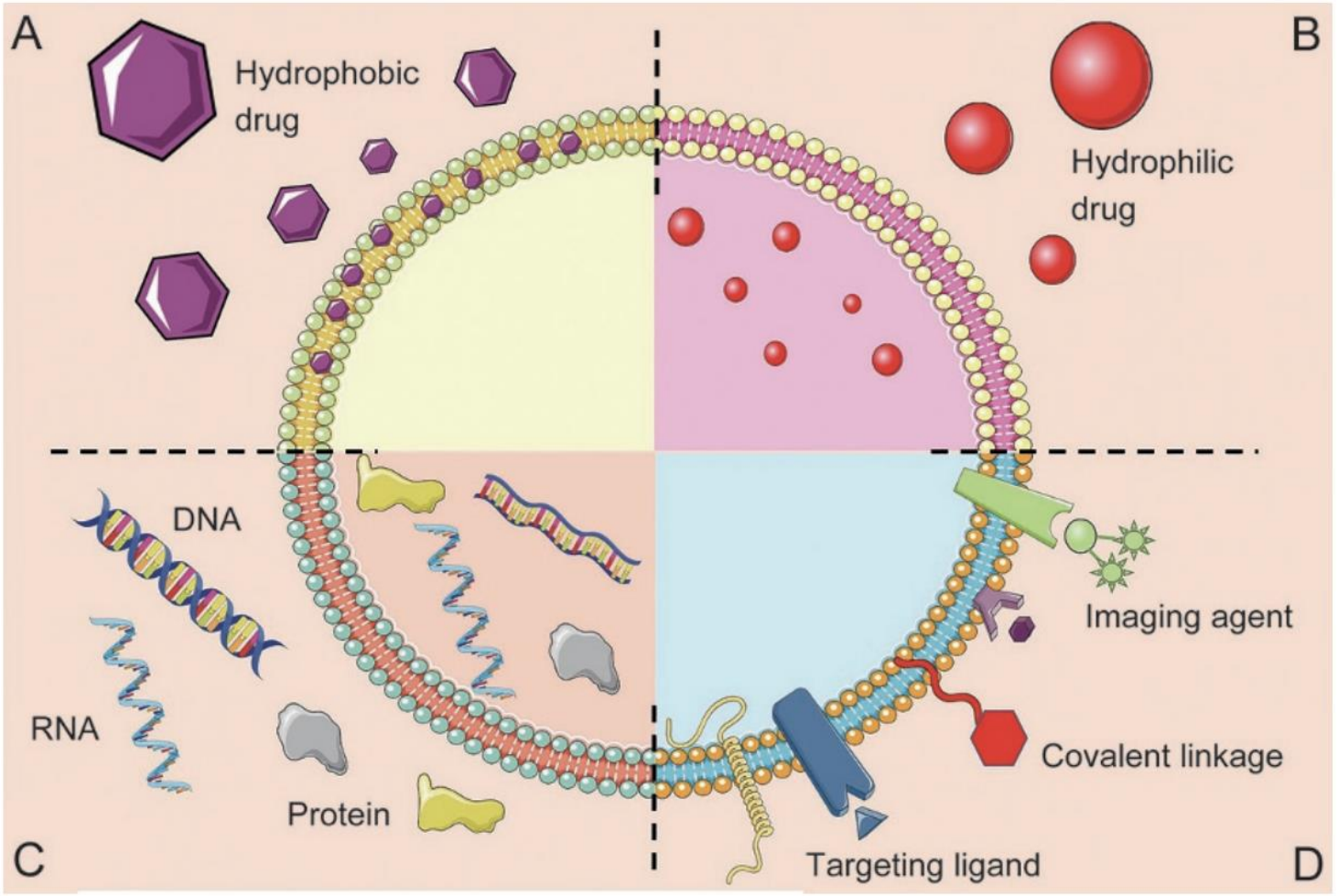
EV in Diagnostic Breast cancer



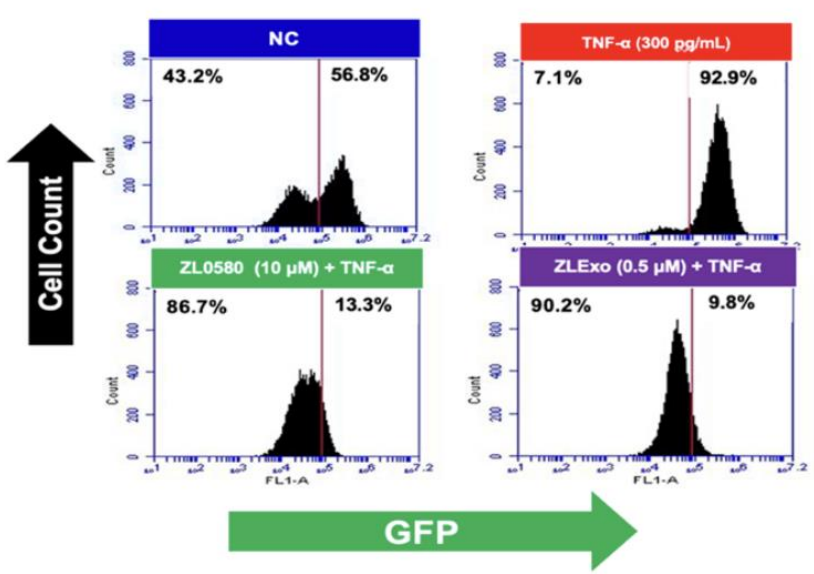
Kim et al., 2023

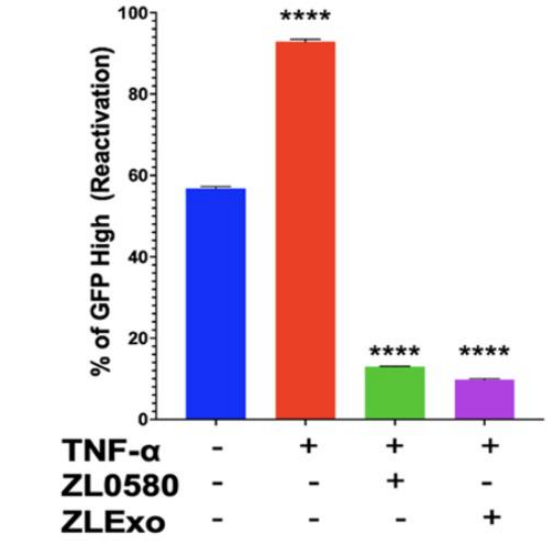
sEVs in Therapeutics

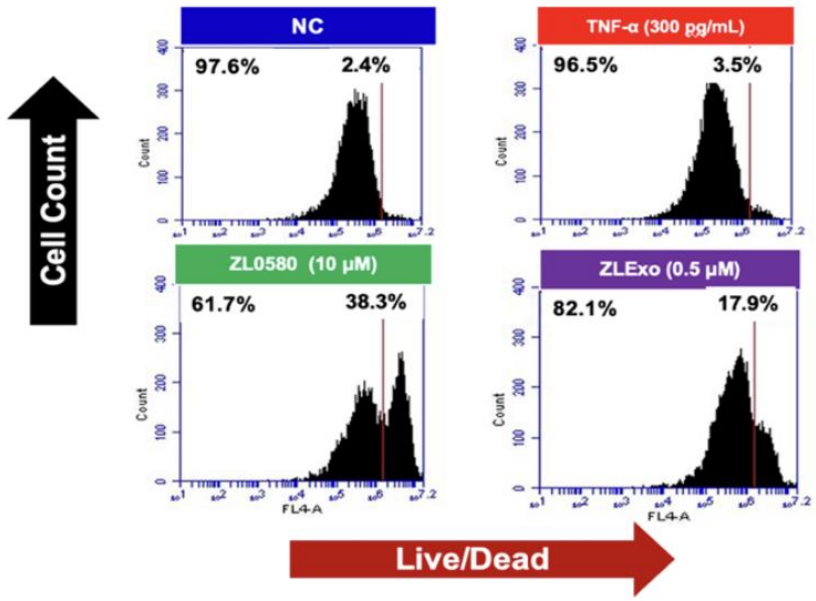
sEVs Drug Loading Strategies

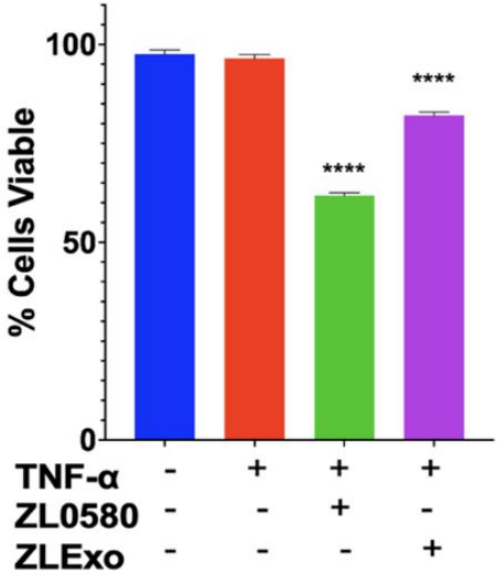


sEVs Loaded with a Tat Inhibitor Reduces HIV Transcription with Low Cytotoxicity

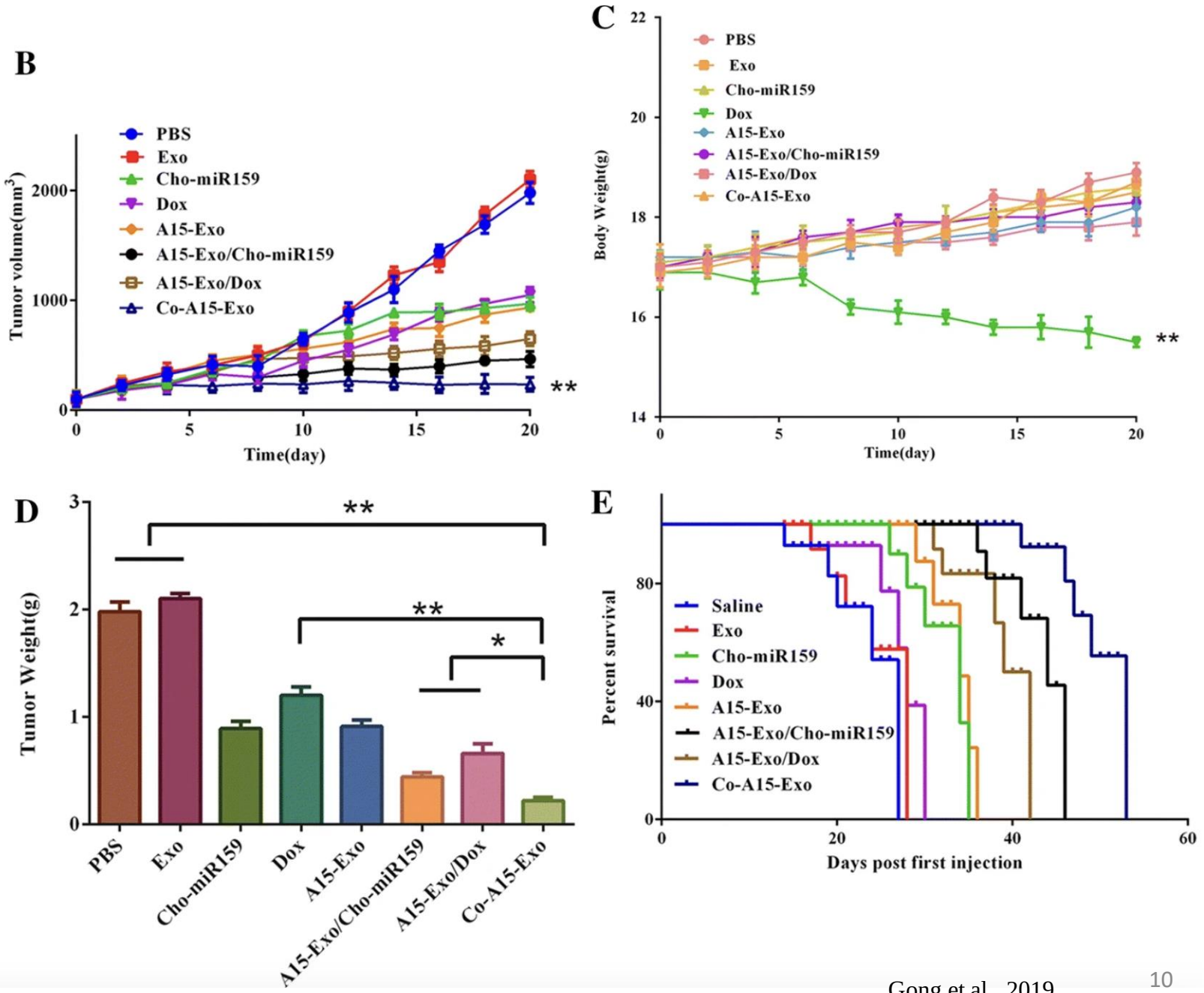








Antitumor Efficacy of Co-A15-Exo for Triple-Negative Breast Cancer Therapy



Gong et al., 2019

The Future OF sEVs

- **sEVs have great potential**
- **More research is needed to advance these therapies into clinical settings**
- **Implementation of Bioreactors for large-scale manufacture of sEVs**

Thank you