

# Exosomes: everything you always wanted to know and questions to ask your exosome provider

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## CPD record / Reader knowledge check



Please print out our form, complete the questions below and sign.

Keep for your records.

1. What are the strengths of using an exosome therapeutic over a stem cell therapeutic. Select all that apply.
  - Simplified storage, room temperature storage is possible.
  - Exosomes are a lot smaller so can get to and into their target cells easier.
  - Exosome do not replicate so there is significantly less risk of spontaneous tumour formation.
  - Exosome therapies are more targeted and precise than stem cell therapies.
2. What is the best kind of cell culture media to use for the collection of exosome enriched conditioned media? (Conditioned media is used for the isolation of exosomes.)
  - Any xeno free media that may contain human serum to stimulate cells to grow.
  - Cell culture media that contains foetal bovine serum (FBS).
  - The type of media doesn't matter as long as you have the right cells.
  - Chemically defined media.
3. The International Society of Extracellular Vesicles (ISEV) gives guidelines for the minimal experimental requirements required for extracellular vesicle research. Which of these is not recommended by ISEV?
  - Particle size and concentration measurements should be determined by two or more complementary techniques.
  - At least three proteins known to be enriched in exosomes should be detected along with the negative detection of at least one cell enriched protein.

- Functional testing of exosomes using any assay that generates a response.
- Exosomes or EVs must be isolated from extracellular fluid that can include cell culture media, blood, cerebrospinal fluid or tears.

4. Link the biogenesis pathway to the extracellular vesicle produced and its expected size.

Direct budding of the plasma membrane	Via the endosomal pathway	During cell death and apoptosis
Exosome	Microvesicle	Apoptotic body
30-150nm	1-5µm	100-1000nm



**1 CPD POINT**

**Signature:**

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