

Supplementary Figures and Video captions

Figure S1. Supplementary NTA size distributions: (Top) EpCAM+ exosomes isolated using different antibody concentrations; (middle) CD9+ exosomes isolated using grooved and smooth channels; and (bottom) total exosomes isolated with ExoQuick for different HGSOC disease stages (n=3).

Figure S2. Supplementary Flow Cytometry Data. Flow cytometry gating and quantification of EpCAM+ and CFSE-stained exosomes isolated from benign, stage I, and stage IV HGSOC patient serum using our microfluidic device.

Figure S3. Supplementary ImageStream Data. Gating and quantification of EpCAM+ and CD9+ CFSE-stained exosomes isolated from a single Stage IV HGSOC patient serum sample using our microfluidic device.

Figure S4. Supplementary size distribution calculation from SEM images. Analysis of fixed and dehydrated CD9 positive exosomes on the channel surface using ImageJ showing: (A) raw image; (B) unsharp mask filter; (C) subtract background; (D) adjust threshold and convert to mask; (E) watershed; and (F) analyze particles tools.

Figure V1. Supplementary NTA Videos. NTA video comparison of EpCAM positive unstained exosomes isolated from healthy (left) and Stage IV HGSOC (right) serum using our microfluidic device.

Figure V2. Supplementary confocal microscopy video demonstrating internalization of microfluidic affinity chromatography-isolated exosomes (green) by OVCAR8 cells (blue) in culture.