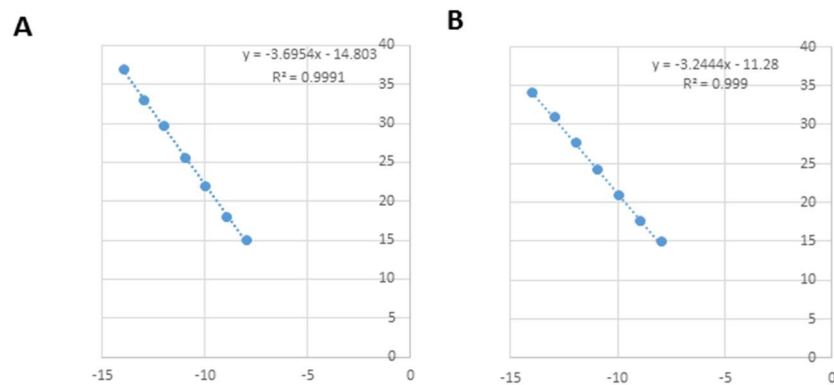


**Supplementary Figure 1.** (A) Investigation of relationship between circulating EV number and disease stage (B) Circulating EV number in healthy control individuals compared to breast cancer patients with primary tumours in situ and those with metastases present.



**Supplementary Figure 2.** A standard curve for  $1 \times 10^{-8}$  to  $1 \times 10^{-14}$  mol dilutions of synthetic miR-451a was reproduced and a linear equation (A) ( $y = -3.70 X - 14.80$ ) for the murine study and (B) ( $y = -3.24 X - 11.31$ ) for human sample analysis was accepted.