Supplementary figure legends

**Fig. S1.** Exosomes from FAK depleted human fibroblasts are deficient in promoting tumorigenic properties. **A.** Trans-well migration assays for MDA-MB-231 cells treated with PBS or exosomes from shCtrl or shFAK transduced WI-38 fibroblasts. **B.** EDU incorporation assays for MDA-MB-231 cells treated with PBS or exosomes from shCtrl or shFAK transduced WI-38 fibroblasts.

**Fig. S2.** Quantitative-PCR analysis of miR levels in exosomes from WI-38 fibroblasts transduced with shCtrl or shFAK and educated by MCF7 cells.

**Fig. S3.** **A.** Immuno-blots showing levels of Twist1, Ccne1 and GAPDH in PyMT cells treated with 4 µg of purified exosomes from Ctrl or cKO CAFs. **B.** Quantification of respective protein levels from purified exosomes normalized against GAPDH as described in A.

**Fig. S4.** **A.** Quantitative-PCR analysis of Ccne1 and Twist1 levels in PyMT cells treated with 4 µg of purified exosomes from Ctrl or cKO CAFs along with 100nM scramble or miR-148a inhibitor. **B.** Quantitative-PCR analysis of Wnt10b levels in PyMT cells treated with 4 µg of purified exosomes from Ctrl or cKO CAFs along with 100nM scramble or miR-16-1 inhibitor.

**Fig. S5.** **A.** Quantitative-PCR analysis of miR-16-1 and miR-148a levels in the exosomes from cKO CAF cells treated with 100nM scramble, miR-16-1 or miR-148a inhibitors. **B.** Trans-well migration assays for PyMT cells pre-treated with exosomes from cKO CAFs treated with 100nM scramble, miR-16-1 or miR-148a inhibitors.
**Fig. S6.** A. EdU incorporation assay for PyMT cells treated with 20 nM of scramble, miR-16-1 or miR-148a inhibitors. B. EdU incorporation assay for PyMT cells treated with 10 nM, 50 nM or 100 nM of miR-16-1 or miR-148a inhibitors.

**Fig. S7.** A working model on the inhibition of tumor cell functions and lung metastasis mediated by FAK-null CAF derived exosomes enriched with miR-16-1 and miR-148a.
Figure S1

A. Migration

B. Proliferation

PBS shctrl shFAK

Exosome

Number of Cells/Field

% EdU

Figure S1
Figure S2

Relative expression of different miRNAs under control (shctrl) and shFAK conditions.
Figure S3

A

B

Relative expression

Twist1  Ccne1  GAPDH

Ctrl  KO

*
Figure S5

(A) Relative expression of miR-16-1 and miR-148a in different groups.

(B) Number of cells/field in different groups.
Figure S6

A

\[
\begin{align*}
\% \text{ EdU}^+ & \\
\text{NC} & \text{miR-16-1 inhibitor} & \text{miR-148a inhibitor} \nonumber \\
\end{align*}
\]

B

\[
\begin{align*}
\% \text{ EdU}^+ & \\
10 & 50 & 100 & 10 & 50 & 100 \text{nM} \\
\text{miR-16-1 inhibitor} & \text{miR-148a inhibitor} \nonumber \\
\end{align*}
\]
Figure S7

Tumor cell migration
Tumor cell colony formation/stemness
Lung metastasis

CCNE1
TWIST1
Wnt10b

Exosomes with enriched miR-16-1 and miR-148a

Control CAF
Exosomes

Control

FAK-null CAF

Tumor cells
