**Supplementary Figure S1**: Optimization of the triple immunostaining on different cell lines with known status of cytokeratins, TF and vimentin expression. Representative images of the triple immunostaining (pan-keratin in pink, TF in green, vimentin in red and dapi in blue) performed on cell with specific phenotype (MCF7, MDA-MB-231, fibroblasts and HDLEC) are shown.

**Supplementary Figure S2**: TF expression and pro-coagulant activity of EMT inducible cell lines. (A) RT-qPCR analyses of TF, vimentin and E-cadherin in A549 and PMC42-LA cells not treated (Ctrl) or treated with TGF-β or EGF, respectively. \*\*, *P*<0.01; \*\*\*, *P*<0.001. (B) Western blotting analyses of TF, vimentin and E-cadherin, and GAPDH as a loading control. (C) Clotting times of 300x103 cells incubated in whole blood of healthy donors and measured by rotational thromboelastometry ((ROTEM®), Tem Innovations GmbH).

**Supplementary Figure S3**: Impact of TF blocking antibody on coagulant activity. Clot assays performed by incubating whole blood from healthy donors and cell suspensions pre-incubated with a control isotype or a TF-blocking antibody. \*No clot formation observed for the period of observation.

**Supplementary Figure S4**: Regulation of TF by EMT transcription factors.(A) RT-qPCR analyses of ZEB1 and Snail in A549 and PMC42-LA not treated (Ctrl) or treated with TGF-β or EGF, respectively. \*, *P*<0.05; \*\*, *P*<0.01. (B) Western blotting analyses of TF in MDA-MB-231, Hs578T, A549 treated with TGF-β or not and PMC42-LA treated with EGF or not, and transfected with one non-targeting siRNA (Ctrl si1) or one siRNA against ZEB1 (ZEB1 si1) or one siRNA against Snail (Snail si1).

**Supplementary Figure S5**: Induction of TF after *de novo* expression of Snail in MDA-MB-468. Western blotting analyses of TF, Snail and ZEB1 in MDA-MB-468 iSnail (harbouring a doxycycline-inducible Snail expression vector) not treated or treated with doxycycline during 2, 4, 6, 8, 24, 48 and 120 hours.

**Supplementary Figure S6**: Validation of TF shRNA. (A) Western blotting analyses of TF in MDA-MB-468 (treated or not with EGF) and MDA-MB-231 cells transduced with two non-targeting shRNA (Ctrl sh1 or Ctrl sh2) or two shRNA against TF (TF sh1 and TF sh2). (B) Clot assays performed with whole blood of healthy donors incubated with cellular suspensions.

**Supplementary Figure S7:** Presence of fibrin fibers around lung colonizing MDA-MB-231 cells as revealed by transmission electron microscopy. (A) Portion of a clot formed *in vitro* by incubating MDA-MB-231 in the blood of a healthy donor. Fibrin fibers are identified (arrows), corresponding to similar structures observed *in vivo* (see panel C). (B) A MDA-MB-231 cell with a thin layer of perinuclear condensed chromatin characterizing tumor cells to further facilitate tumor cell identification *in vivo*. (C) Portion of the lungs of a BALB/c mice injected with MDA-MB-231 and collected 24 hours after injections showing red blood cells (RB), capillary containing two tumor cells (TC), and pulmonary alveolus (PA). (D) Enlarged image of (C) showing fibrin fibers (arrows) and tumor cells (TC).