## **Supplementary Material**

## Suppl. Table 1. Patient data.

Total number (n)	62
Age median (min-max)	57 (41-92)
Clinical stage	
I	3
II	32
III	16
IV	1
Receptor Status	
HR+HER2-	20
HR <sup>+</sup> HER2 <sup>+</sup>	15
HR-HER2+	10
HR-HER2-	17



**Suppl. Fig. 1.** Graphic presentations of the fibronectin (FN) isoforms. The plasma fibronectin (pFN), the recombinant FN lacking the EDA domain (rFN-EDA<sup>-</sup>) and the recombinant FN with the EDA domain (rFN-EDA<sup>+</sup>) are shown in comparison to the total FN protein.



**Suppl. Fig. 2** Kaplan-Meier plot for the estimation of survival in breast cancer patients (n=995, from METABRIC database) with low and high total cellular FN expression.





**Suppl. Fig. 3.** Immunofluorescence analysis of FN-EDA in the breast tumor specimens. Micrographs from four patients who were diagnosed with **(A)** hormone receptor (HR)-negative, HER2-negative (triple negative breast cancer), **(B)** HR-negative, HER2-positive, **(C)** HR-positive, HER2-negative, and **(D)** HR-positive, HER2-positive breast cancer are demonstrated. Epithelial cells are labelled with epithelial cellular adhesion molecule (EpCAM). Please note the co-expression of FN-EDA and EpCAM (appears in yellow color on merged images) in epithelial cells from **(A)** triple negative breast cancer specimens. Scale bar, 10  $\mu$ m.



**Suppl. Fig. 4.** Expression of CD14, TLR4 and MD2 molecules on the monocytes incubated with the conditioned media (CM) from different breast cancer cell lines. **A)** Median fluorescence intensity (MFI) values and **(B)** representative flow cytometry offset plots are shown. (Ctrl., monocytes incubated in the control media; blue bars, CM from low-level fibronectin-expressing cell lines; red bars, CM from high-level fibronectin-expressing cell lines; Mean±SEM, Student's t-test; \*, P < 0.05)



**Suppl. Fig. 5.** Expression of integrin molecules on the monocytes incubated with the conditioned media (CM) from different breast cancer cell lines. **A)** Median fluorescence intensity (MFI) values and **(B)** representative flow cytometry offset plots are shown. (White bars, monocytes incubated in the control media; blue bars, CM from low-level fibronectin-expressing cell lines; red bars, CM from high-level fibronectin-expressing cell lines; Mean±SEM, Student's t-test; \*\*, P < 0.01)



**Suppl. Fig. 6.** Activation of STAT3 pathway in myeloid **(A-C)** THP-1 and **(D-F)** U937 cell lines following the incubation with conditioned media (CM) from breast cancer cell lines. **A,D)** Representative Western-Blot images and band intensities of **(B,E)** pSTAT3 and **(C,F)** total STAT3 protein normalized according to β-actin are shown. (pSTAT3, phospho-STAT3 (Tyr705); total STAT3, tSTAT3; Mean±SEM, Student's t-test; \*, P < 0.05 \*\*, P < 0.01)



**Suppl. Fig. 7.** Change in IL-1 $\beta$  gene expression in the THP-1 cells treated with the conditioned media (CM) collected from triple-negative breast cancer cells. The data were normalized to the control THP-1 cells cultured in standard media. The dashed line crossing at  $2^{-\Delta\Delta Ct} = 1$  represents an equal expression level between the control and CM-treated cells.



**Suppl. Fig. 8.** IL-1β gene expression analysis in STAT3 silenced THP-1 cells treated with the breast cancer conditioned media (CM). THP-1 cells were genetically-modified with **(A)** short-hairpin (sh)STAT3 or **(C)** dominant-negative (DN) STAT3 constructs and treated with the CM. pSTAT3 (phospho-STAT3 Tyr705) and tSTAT3 (total STAT3) protein levels were studied by Western-Blot. Change in IL-1β gene expression in **(B)** the shSTAT3-modified and in **(D)** the DN-STAT3-modified THP-1 cells treated with the conditioned media (CM) collected from triple-negative breast cancer cells. The data from the shControl plasmid-modified THP-1 cells and the mock-transfected THP-1 cells were used for the normalization of shSTAT3-modified THP-1 cells and for the DN-STAT3-modified THP-1 cells and the mock-transfected THP-1 cells were used for the normalization of shSTAT3-modified THP-1 cells and for the DN-STAT3-modified THP-1 cells and for the COM-STAT3-modified THP-1 cells and the STAT3-modified cells.