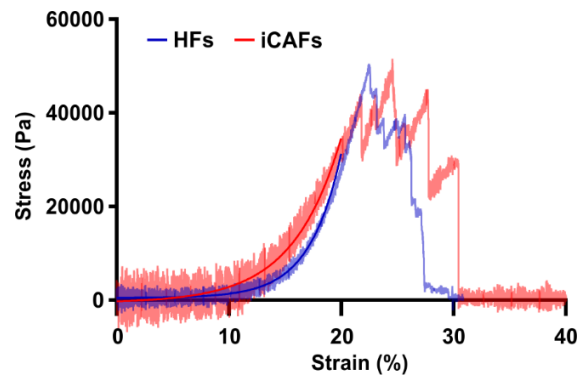


Supplementary Material

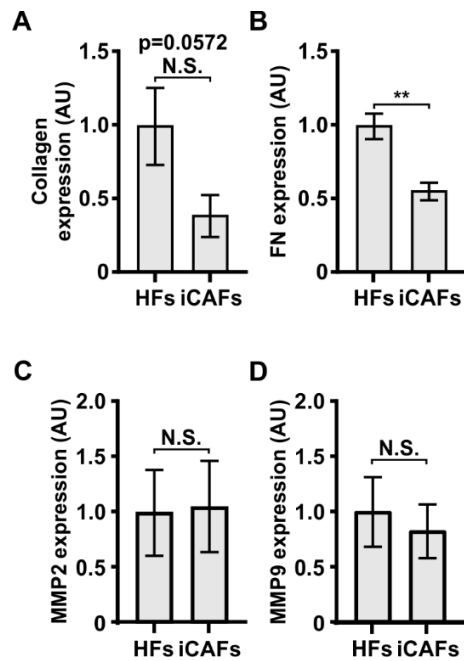
Supplementary Table S1. Primer list

| Genes | Primers | Sequences |
|--------|----------------|---------------------------|
| COL1A1 | Forward primer | AGGGACACAGAGGTTTCAGT |
| | Reverse primer | AGCACCATCATTTCACGAG |
| FN1 | Forward primer | TCAGCTTCCTGGCACTTCTG |
| | Reverse primer | TCTTGTCTACATTTCGGCGG |
| MMP2 | Forward primer | CTCTGGACTTAGACCGCTTGG |
| | Reverse primer | GAAGGTGTTTCAGGTATTGCATGTG |
| MMP9 | Forward primer | CGCAGACATCGTCATCCAGT |
| | Reverse primer | AACCGAGTTGGAACCACGAC |

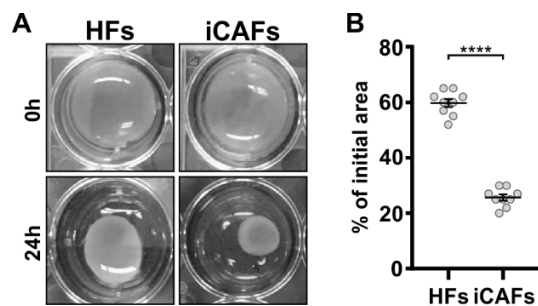
Supplementary figures



Supplementary Figure S1. Representative stress-strain curves of HF-derived and iCAFs-derived ECM constructs during mechanical testing. The solid lines represent the calculated fit over the toe region of each sample.



Supplementary Figure S2. Impact of tumor cell mediated activation of fibroblasts on ECM and MMPs mRNA expression. (A). RT-qPCR quantification of type I collagen expression in HF and iCAF cells on plastic. (B). RT-qPCR quantification of FN expression in HF and iCAF cells on plastic. (C). RT-qPCR quantification of MMP2 and (D). MMP9 expression in HF and iCAF cells on plastic. Data are presented as mean \pm SEM. ** $p < 0.01$.



Supplementary Figure S3. iCAFs exhibit increased collagen compaction.

A. Representative images of collagen gel embedded with HF and iCAF cells at 0h and 24h. **B.** Corresponding quantification of the collagen gel compaction after 24h. N=4 independent biological replicates. The data are represented as mean \pm SEM. **** $p < 0.0001$.