

Supplemental Figure 1. MMP3 and Rac1b expression are not correlated with collagen and smooth muscle actin in pancreatic adenocarcinoma cells. (A) Representative tissue biopsy section from pancreatic adenocarcinoma tissue microarray, stained with hematoxylin and eosin (H&E), α -smooth muscle actin (α SMA), and Collagen-1 (Collagen). (B-E) correlation plots of H-Score quantification for Collagen vs α SMA (B), Collagen vs MMP3 (C), α SMA vs MMP3 (D), Collagen vs Rac1b (E), and α SMA vs Rac1b (F). r values for Pearson's correlations are indicated.

Supplemental Figure 2. Association of Rac1b subcellular localization with patient prognosis is not dependent upon patient stage or grade. (A) Statistical analysis of Rac1b localization vs outcome for univariate and multivariate analysis including patient stage, for patients for which stage information was available. (B) Survival curves for multivariate analysis including stage. (C) Statistical analysis of Rac1b localization vs outcome for univariate and multivariate analysis including tumor grade (all patients had grade information). (D) Survival curves for multivariate analysis including grade.

Supplemental Figure 3. Induction of fibrosis and activation of metaplasia in response to MMP3. Expression of MMP3 induces foci (a) showing increased expression of Rac1b (b), myofibroblast marker smooth muscle actin (α SMA; c), fibrotic ECM component Collagen I (Collagen; d), acinar-to-ductal metaplasia marker cytokeratin 19 (CK19; e), and macrophage influx (F4/80; f). Scale bar, 100 μ m.

Supplemental Figure 4. Meta-analysis of datasets showing overlap of response of PaTu8988T to MMP3 with pancreas biosets. In each panel, Bioset #1 is the 141 transcript list of response to MMP3 ($p < 0.05$, $FC > 1.5$). (A) Positive overlap with bioset comparing Panc-1 cells treated with TGF β or untreated (28). (B) Positive overlap with bioset comparing metastatic AsPC-1 cells with primary (nonmetastatic) BxPC-3 cells (29). (C) Positive overlap with bioset comparing PaTu8988S cells with PaTu8988T cells (30).

Supplemental Figure 5. Nuclear localization of pSMAD2 in response to MMP3. Expression of MMP3 induces foci showing increased expression of Rac1b (a), nuclear localization of phosphorylated SMAD2 (pSMAD2; b), myofibroblast marker smooth muscle actin (α SMA; c), and fibrotic ECM component Collagen I (Collagen; d). Scale bar, 100 μ m; inset scale bar, 20 μ m.