**Supplementary Table S1.** List of antibodies used for IHC, IF and western blotting.

Antibody Host Company Dilution(WB) Dilution(IHC/IF)

anti-SMAD4 mouse Santa Cruz 1:1000 1:100

anti-SMAD1 Rabbit Cell Signaling 1:1000

anti-SMAD2/3 Rabbit Cell Signaling 1:1000

anti-SMAD5 Rabbit Cell Signaling 1:1000

anti-ACTB Mouse Sigma-Aldrich 1:8000

anti-CD66b Mouse Biolegend 1:50

anti-MPO Mouse Leica ready to use

anti-CXCR2 Rabbit Abcam 1:100

anti-CXCL1 Goat Santa Cruz 1:200

anti-CXCL8(IF) Goat R&D 1:40

anti-CXCL8(IHC) Mouse Abcam 1:100

anti-ARG1 Mouse R&D 1:50

anti-IDO Mouse Abcam 1:100

anti-MMP2 Mouse Abcam 1:100

anti-MMP9 Mouse Santa Cruz 1:100