

Supplemental Figure 1: CD200 expression in the pancreatic tumor microenvironment is not dependent on pathology grade or cancer stage. Tissue microarrays were stained for tumor (PanCK), immune (CD45), stroma (FAP, PDGFR $\beta$ ,  $\alpha$ SMA), and CD200. CD200 expression was quantified as **A** % total CD200, **B** % CD200+ CD45+ immune cells, **C** % CD200+  $\alpha$ SMA+ PDGFR $\beta$ + FAP+ PanCK- stromal cells, and **D** % CD200+ PanCK+ tumor cells in patients with grade 1 (n = 32), grade 2 (n = 31), and grade 3 (n = 37) tumors. CD200 expression was quantified as **E** % total CD200, **F** % CD200+ CD45+ immune cells, **G** % CD200+  $\alpha$ SMA+ PDGFR $\beta$ + FAP+ PanCK- stromal cells, and **H** % CD200+ PanCK+ tumor cells in patients with stage I (n = 48), stage II (n = 71), and stage III/IV (n = 6) disease. CD200 expression was quantified as I % total CD200, **J** % CD200+ CD45+ immune cells, **K** % CD200+  $\alpha$ SMA+ PDGFR $\beta$ + FAP+ PanCK- stromal cells, and **H** % CD200+  $\alpha$ SMA+ PDGFCK+ tumor cells in patients with stage I (n = 48), stage II (n = 71), and stage III/IV (n = 6) disease. CD200 expression was quantified as I % total CD200, **J** % CD200+ CD45+ immune cells, **K** % CD200+  $\alpha$ SMA+ PDGFR $\beta$ + FAP+ PanCK- stromal cells, and **L** % CD200+ PanCK+ tumor cells in patients younger than the median age, 53 years, (n = 62) and patients older than the median (n = 65). CD200 expression was quantified as **M** % total CD200, **N** % CD200+ CD45+ immune cells, **O** % CD200+  $\alpha$ SMA+ PDGFR $\beta$ + FAP+ PanCK- stromal cells, and **P** % CD200+ PanCK+ tumor cells in female (n = 53) and male (n = 74) patients. Means ± STD, \* = p < 0.05



Supplemental Figure 2: Representative gating strategy on patient PBMCs. A Representative gating strategy for CD66b+ CD11b+ granulocytes and CD66b+ CD33+ HLADR<sup>low</sup> g-MDSCs. B Representative gating strategy for CD19+CD3- B cells, CD8+ T cells, and CD4+ T cells. CD45+ CD14- cells gated off the CD45+ CD66b- population. C Representative gating strategy for CD14+ monocytes (CD16- classical and CD16+ nonclassical), CD14+ CD33+ HLADR<sup>low</sup> m-MDSCs, CD16- CD123+ CD11cpDCs, CD16- CD123- CD11c+ mDCs, and CD56+ CD161+ CD123- NK cells. CD19- CD3- cells gated off the CD45+ CD66bpopulation.



**Supplemental Figure 3: CD200 expression on specific T cell populations.** PBMCs were isolated from PDAC patients (n = 17) and healthy donors (n = 12) and stained with a panel of 38 antibodies for CyTOF. MMI of CD200 was quantified on **A** 

naïve, **B** activated, **C** CM, **D** EM, and **E** TE CD8 T cells. MMI of CD200 on **F** EM, **G** naïve, **H** activated, **I** CM, **J** TE CD4 T cells. MMI of CD200 on **K** T regs, **L** Th1, **M** Th2, and **N** Th17. Means  $\pm$  STD, \* = p < 0.05

Marker	Metal	
CD45	89Y	
CD196/CCR6	141Pr	
CD123	143Nd	
CD19	144Nd	
CD4	145Nd	
CD8a	146Nd	
CD11c	147Sm	
CD16	148Nd	
CD45RO	149Sm	
CD45RA	150Nd	
CD161	151Eu	
CD194/CCR4	152Sm	
CD25	153Eu	
CD27	154Sm	
CD57	155Gd	
CD183/CXCR3	156Gd	
CD185/CXCR5	158Gd	
CD28	160Gd	
CD38	161Dy	
CD56/NCAM	163Dy	
TCRγδ	164Dy	
CD294	166Er	
CD197/CCR7	167Er	
CD14	168Er	
CD3	170Er	
CD20	171Yb	
CD66b	172Yb	
HLA-DR	173Yb	
IgD	174Yb	
CD127	176Yb	
CD11b/Mac-1	209Bi	
CD33	165Ho	
Viability	103Rh	

## Supplemental Table 1. Metal-isotope antibodies

1 ICLDIII	,	100101

	Tissue Diagnosis	Normal	Cancer Adjacent	Pancreatic Cancer
Total		18	27	127
Sex	Female Male	8 10	15 12	53 74
Age	< 53 yrs > 53 yrs	18 0	11 16	62 65
Grade	1 2 3	-	- - -	32 31 37
Stage	       / V	-	- - -	48 71 6

Supplemental Table 2. Characteristics of Patients

iCAFs	myCAFs
DUSP I FRI N1	
CLU	BGN
CCDC80	IGFBP7
MYC	TPM2
EFEMP1	CTHRC1
HAS1	ACTA2
NR4A1	TAGLN
CFD	INHBA
ANXA1	COL10A1
CXCL12	
	PUSIN
NLF4 EMD1	GRP CST1
	CSTT
SRPX	
MT2A	
MEDAG	
IGF1	
MGST1	
MCL1	
CEBPD	
S100A10	
UAP1	
TNXB	
CEBPB	
SOCS3	
NEKBIA	
CXCL2	
THBS1	
CCL2	
OGN	
GSN	
DPT	
PLA2G2A	
NAMPT	
ITM2A	
RGCC	
7FP36	
PIM1	
CPE	
GFPT2	
SOD2	
KDM6B	
FSTL1	
FBLN2	
NK4A3	
ABLZ	
UGDH	
FBLN5	
ADAMTS1	
ADH1B	
WISP2	
GPX3	
S100A4	
IL6	
HAS2	
PLAC9	
IGFBP6	
RASD1	
MT1A	
CXCL14	
PI16	
APOE	
IL8	
ARC	
PTX3	
TNFAIP6	
MT1E	
UXUL1	