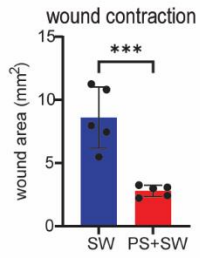
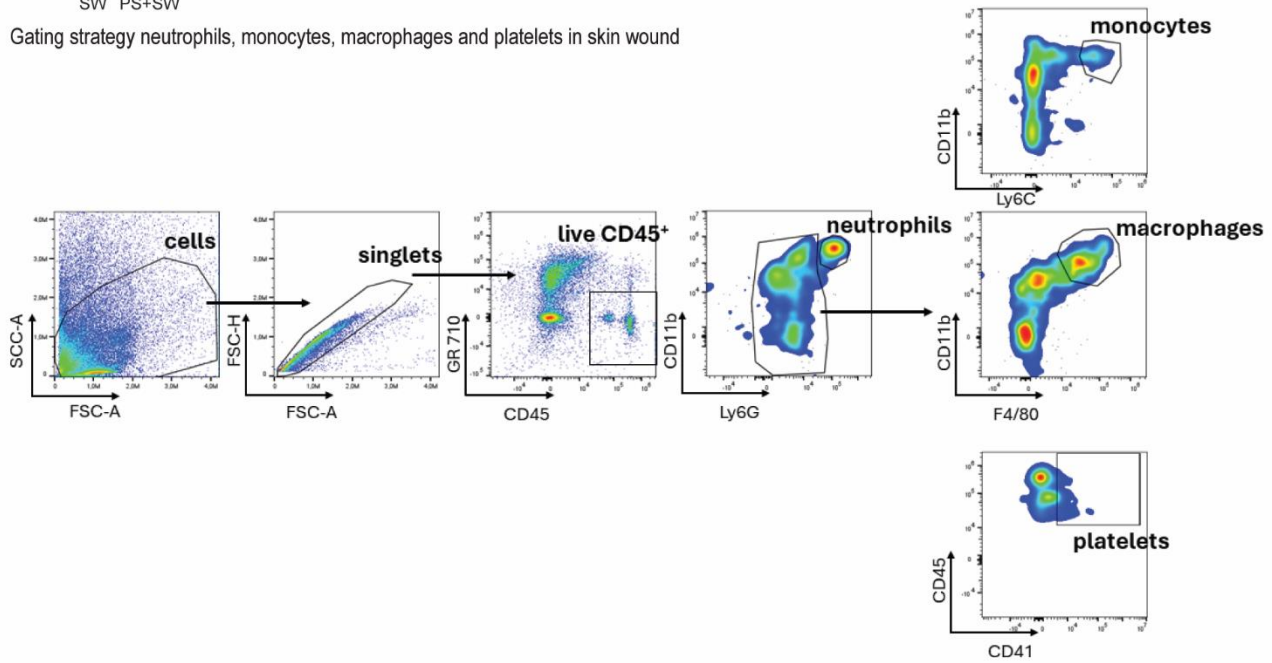


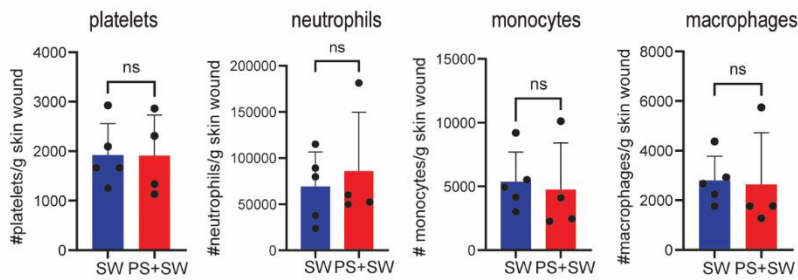
A



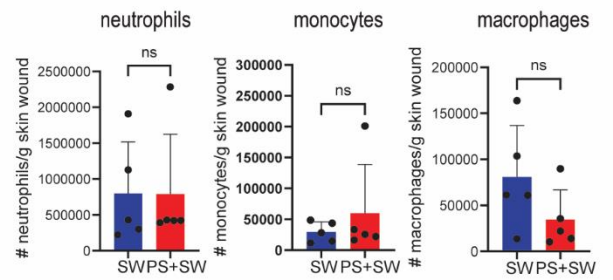
B Gating strategy neutrophils, monocytes, macrophages and platelets in skin wound



C 2 hours



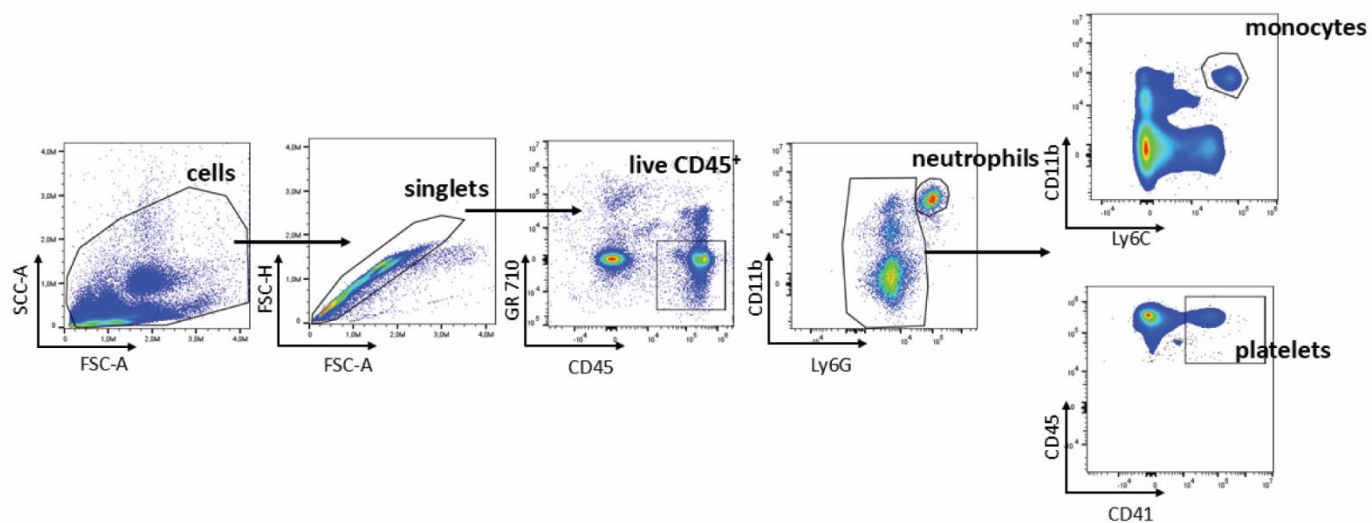
D 24 hours



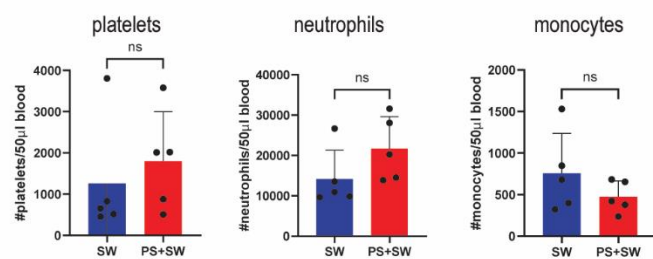
1130 **Supplemental Figure 1:**

1131 **(A)** Quantification of wound contraction from photographs, n=5 (both groups), p=0.0007,
1132 (Students t-test), data denote single mice representative from 1 experiment (N=1). **(B)**
1133 Flow cytometry gating strategy of skin wound immune cell populations. **(C)** Quantification
1134 of platelets, neutrophils, monocytes and macrophages at 2 hours in the skin wound. N=2
1135 Platelets: p= 0.9838, neutrophils: p= 0.6345, monocytes: p= 0.7624, macrophages: p=
1136 0.8852, (Students t-test) **(D)** Quantification of neutrophils, monocytes and macrophages
1137 at 24 hours in the skin wound. N=3, Neutrophils: p= 0.9885, monocytes: p= 0.7397,
1138 macrophages: p= 0.1493, (Students t-test)

A Gating strategy neutrophils, monocytes, macrophages and platelets in blood



B 2 hours



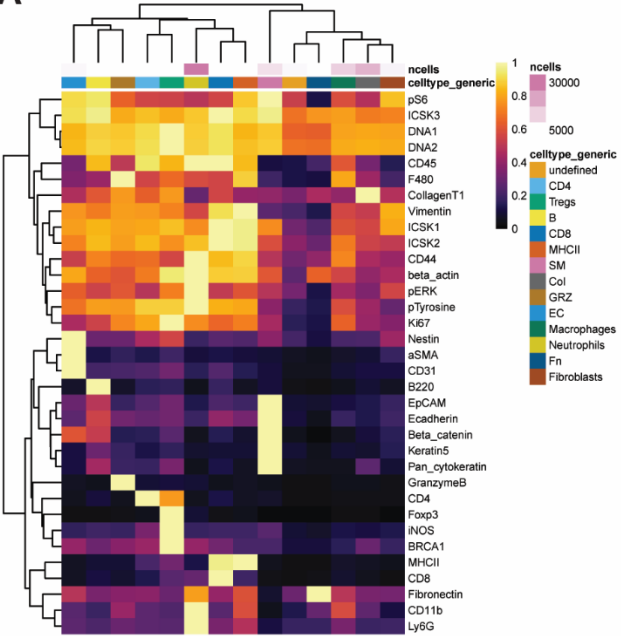
1140 **Suppl. Figure 2:**

1141 **(A)** Flow cytometry gating strategy of blood immune cell populations. **(B)** Quantification
1142 of platelets, neutrophils and monocytes at 2 hours in the blood. N=2, Platelets: p= 0.5309,
1143 neutrophils: p= 0.1553, monocytes: p= 0.2590, (Students t-test)

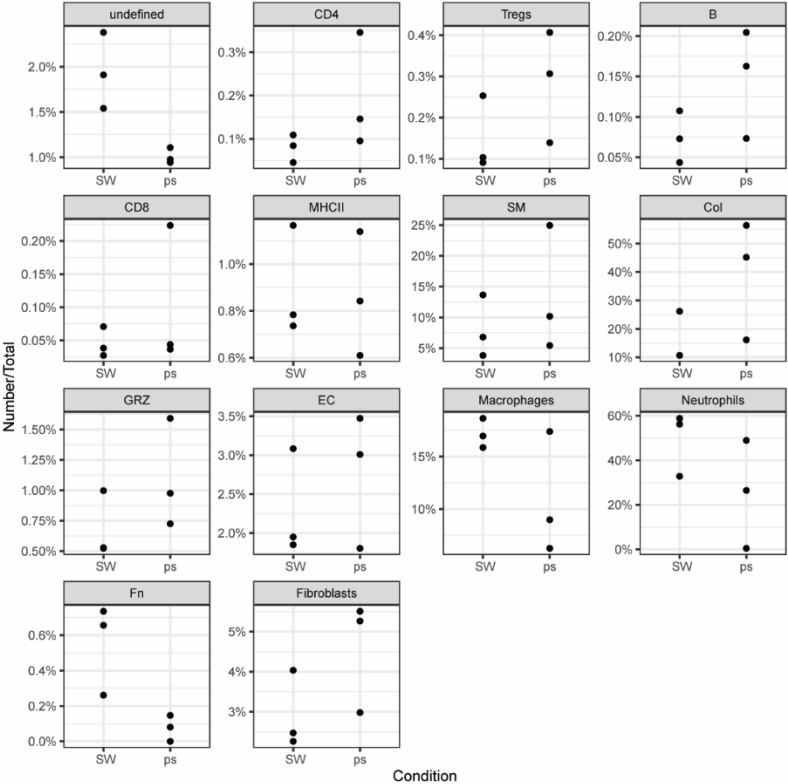
1144 Each data point represents an individual mouse from one representative experiment.
1145 Independent experimental repetitions yielded similar results and are representative of N
1146 ≥ 2 experiments.

1147

1 A



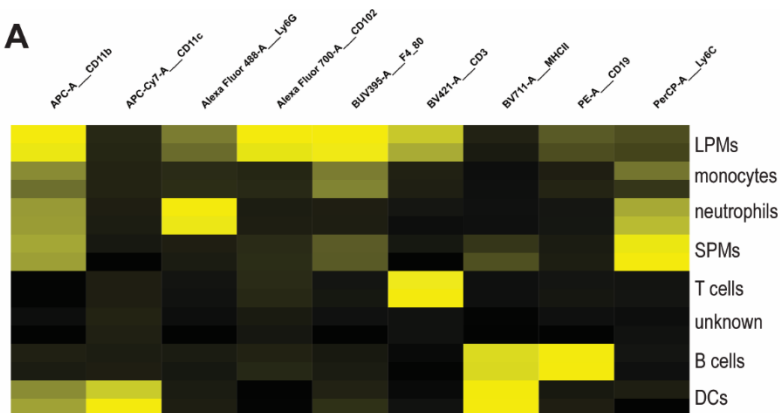
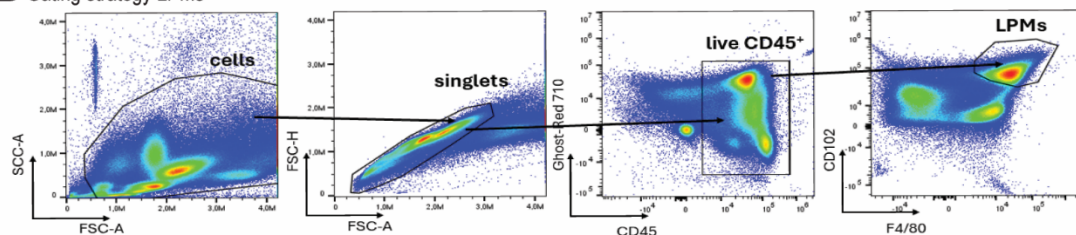
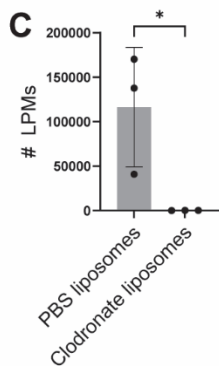
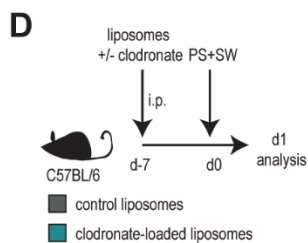
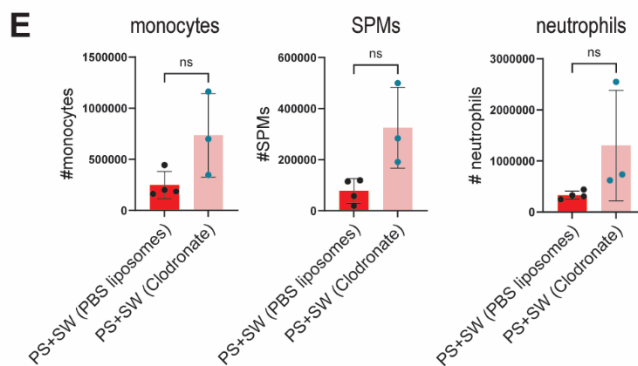
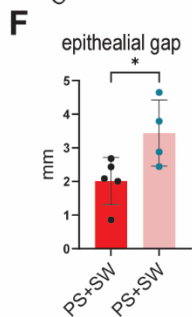
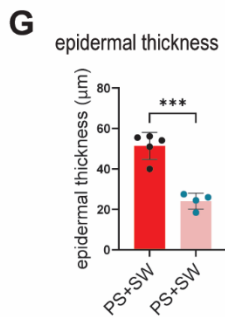
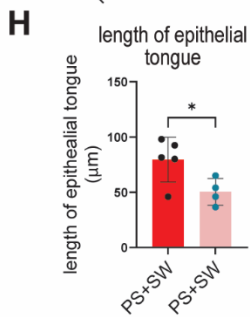
B



Suppl. Fig3

1149 **Supplemental Figure 3:**

1150 **(A)** Heatmap showing surface marker expression (y-Axis), which was used to
1151 characterize the different immune cell populations (x-Axis). **(B)** Datapoints relative
1152 abundance of individual cell types

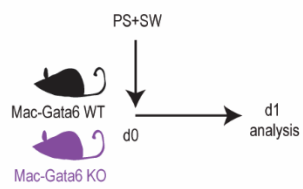
1 **A****B** Gating strategy LPMs**C****D****E****F****G****H**

1154 **Supplemental Figure 4**

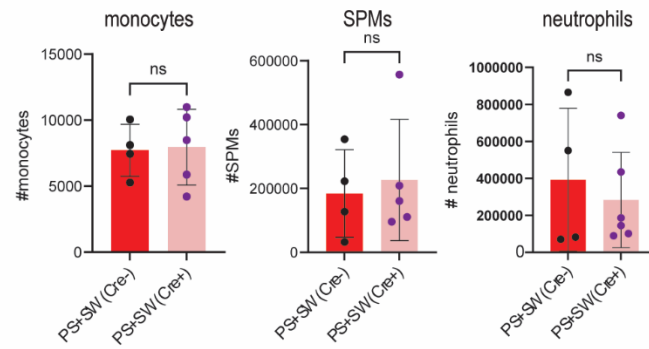
1155 **(A)** Heatmap showing surface marker expression (x-Axis), which was used to
1156 characterize the different immune cell populations (y-Axis). **(B)** Gating strategy of LPMs.
1157 LPMs were defined as singlets, live CD45⁺, F4/80^{high} and CD102⁺. **(C)** Quantification of
1158 LPMs 7 days after Clodronate liposome ip injection, (PBS liposomes: n=3, Clodronate
1159 liposomes: n=3), N=2, p= 0.0404, (Students t-test) **(D)** Illustration of experimental
1160 approach **(E)** Quantification of monocytes, SPMs and neutrophils in the peritoneal fluid at
1161 day 1. Monocytes: p= 0.1143, SPMs: p=0.0571, neutrophils: p=0.0571. N=2 (Mann-
1162 Whitney test). **(F)** Quantification of epithelial gap at day 1, n=5 (PS+SW, control
1163 liposomes), n=4 (PS+SW, clodronate-loaded liposomes): p=0.0378, N=1, (Student`s t-
1164 test), **(G)** Quantification of epidermal at day 1, n=5 (PS+SW, control liposomes), n=4
1165 (PS+SW, clodronate-loaded liposomes): p=0.0002 (Student`s t-test), N=1 **(H)**
1166 Quantification of length of epithelial tongue, n=5 (PS+SW, control liposomes), n=4, N=1
1167 (PS+SW, clodronate-loaded liposomes): p=0.0393 (Student`s t-test).

1168

1 **A**



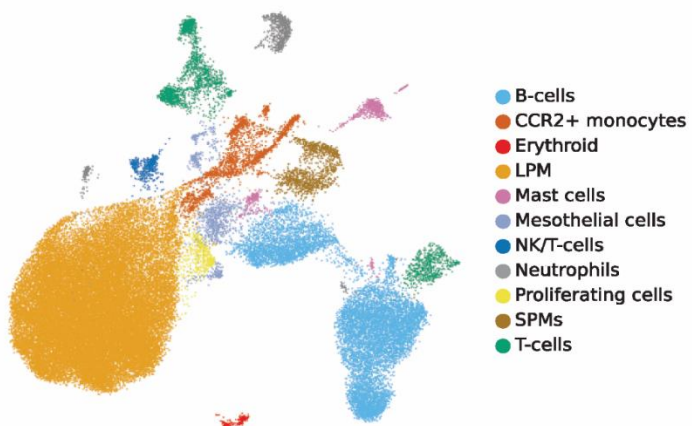
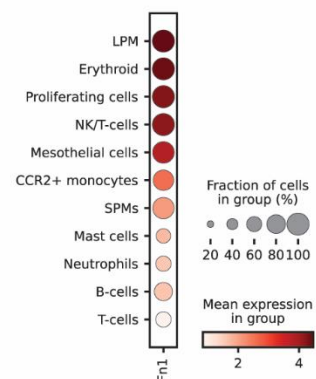
B



Suppl. Fig5

1170 **Supplemental Figure 5**

1171 **(A)** Illustration of experimental approach **(B)** Quantification of monocytes, SPMs and
1172 neutrophils in the peritoneal fluid at day1 in wild type and Mac-Gata 6KO mice (PS+SW),
1173 monocytes: $p=0.8937$, SPMs: $p=0.7197$, neutrophils: $p=0.6018$, $N=1$, (multiple Student's
1174 t-test).

1 **A****B**

1176 **Supplemental Figure 6:**

1177 (A-B) Supplemental Figure 6A-B were generated using publicly available single cell

1178 sequencing data from mouse peritoneal cells from the following source:

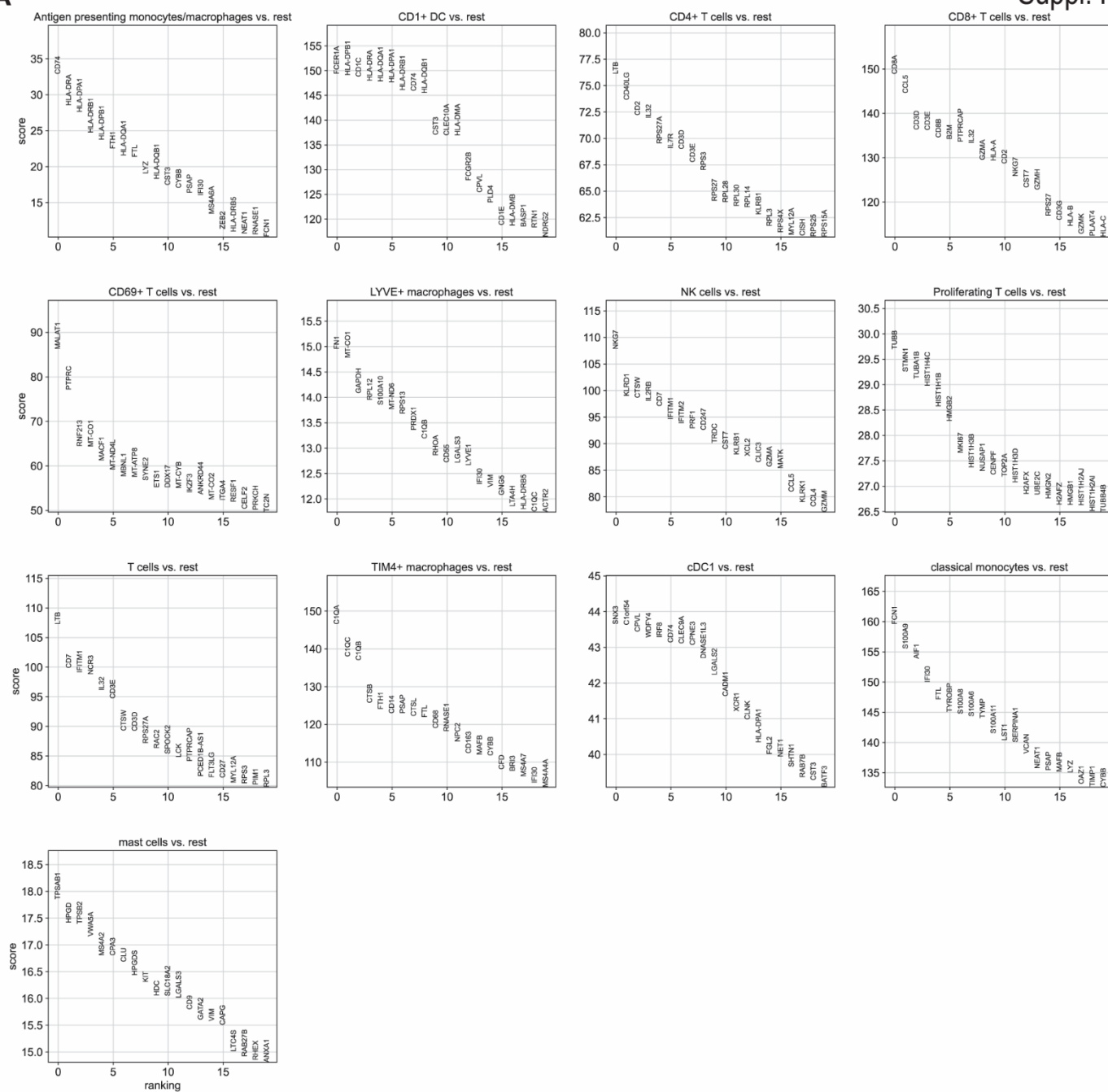
1179 https://artyomovlab.wustl.edu/scn/?token=gjrandolph.fig1.adult_peritoneal_mnp. **(A)**

1180 UMAP-plot of mice peritoneal cells and **(B)** Dot plots showing the average expression

1181 levels per cell type of *Fn1*

1 A

Suppl. Fig7



1183 **Supplemental Figure 7**

1184 scRNA-seq analysis of human peritoneal cells **(A)** Visualization of each identified cell type
1185 cluster represented by individual squares. Each square displays the top 20 genes based
1186 on differential expressions within the cell type cluster. Genes are ranked according to
1187 expression levels.

1192 **Supplemental table 1: Flow cytometry antibodies**

Antibody	Source of reference	Identifiers	Dilution
Purified anti-Ms CD16/32, monoclonal	Biolegend	Cat# 101302; clone 93; Lot#B298973; RRID: AB_312801	(1:200)
Fixable Viability Dye eFluor506	Thermo Fisher Scientific	Cat# 65- 0866- 18	(1:600)
GhostRed 710 (AF700)	Tonbiosciences	Cat# 130871-T100, Lot # DO871052323133	(1:4000)
Anti-CD11b (APC)	Biolegend	Cat# 101212; clone M1/70; Lot#B312600; RRID: AB_312795	(1:600)
Anti-CD11c (APC-Cy7)	Thermo Fisher Scientific	Cat# 47- 0114- 80; cloneN418; Lot# 2133269; RRID:AB_1548652	(1:300)
Anti-Ly6G (FITC)	BD Biosciences	Cat# 551460; clone 1A8; Lot#9068981; RRID: AB_394207	(1:100)
Anti-CD102 (Alexa Fluor 700)	Southern Biotech	Cat# 1925-27; clone 3C4; Lot#F1912-SK45B; RRID: AB_2795545	(1:300)
Anti-F4/80 (BUV 395)	BD Biosciences	Cat# 565614; clone T45-2342; Lot# 1104580; RRID:AB_2739304	(1:150)
Anti-CD3 (BV421)	invitrogen	Cat# 48003282; clone 17A2, Lot# 2264580; RRID: AB_2536579	(1:100)
Anti-I-A/I-E (BV 711)	Biolegend	Cat#107643; cloneM5/114.15.2; Lot# B299330;RRID: AB_2565976	(1:600)
Anti-CD19 (PE)	eBioscience	Cat# 12-9668-82; clone: 1A8; Lot#4346371; RRID: AB_657659	(1:800)
Anti-Ly6C (PerCP Cy5.5)	eBioscience	Cat#45-5932-82, clone: HK1.4 Lot#2309273; RRID: AB_2723343	(1:100)
Anti-CD45 (AF594)	Biolegend	Cat#103144; clone: 30_F11; Lot#B262565, RRID: AB_2563458	(1:200)
Anti-CD45 (BV 510)	Biolegend	Cat#103138; clone: 30-F11, RRID: AB_2561392, Lot# B386738	(1:200)
Anti-F4/80 (BUV 395)	Biolegend	Cat#123149, clone: BM8, RRID: AB-2564589, Lot# B372797	(1:80)

Anti-CD 102 (BV605)	BD Biosciences	Cat#740346, clone: 3C4(m1C2/4), RRID: AB_2740079, Lot# 3280219	(1:200)
Anti-CD 11b (BV750)	Biolegend	Cat#101267, clone: M1/70, RRID: AB_2810328, Lot# B365976	(1:400)
Anti-CD44 (BUV 395)	BD Biosciences	Cat# 740215, clone: IM7, RRID: AB_2739963, Lot# 2320602	(1:200)
Anti-CD80 (BV 421)	Biolegend	Cat# 104726, clone: 16-10A1, RRID: AB_10900989, Lot# B264062	(1:100)
Anti-CD86 (BUV 615)	BD Biosciences	Cat# 751557, clone: GL1, RRID: AB_2875552, Lot# 3009653	(1:200)
Anti-CD 62p (FITC)	BD Biosciences	Cat# 553744, clone: RB40.34, RRID: AB_395026, Lot# 6140990	(1:100)
Anti-Msr1 (PerCP-Cy5.5)	Biolegend	Cat# 154716, clone: 1F8C33, RRID: AB_2892313, Lot# B333672	(1:100)
Anti-Marco (APC)	R&D systems	Cat# FAB2956A, clone: 579511, Lot# ABHO0420031	(1:100)
Anti-fibronectin (AF647)	abcam	Cat# AB237287, clone: EPR19241-46, Lot# 1022070-1	(1:200)
Anti-Tim4 (BUV 660)	BD Biosciences	Cat# 750205, clone: 21H12, RRID: AB_2874406, Lot# 3299774	(1:100)
Anti-CD36 (PE)	Biolegend	Cat# 102606, clone: HM36, RRID: AB_389348, Lot# B314216	(1:100)
Anti-MerTK (PE dazzle 594)	Biolegend	Cat# 151524, clone: 2B10C42, RRID: AB_2876509, Lot# B364702	(1:400)
Anti-CD206 (PE/Fire 700)	Biolegend	Cat# 141741, clone: C068C2, RRID: AB_2922468, Lot# B402656	(1:80)
Anti-Ly6G (BV650)	BD Biosciences	Cat# 740554, clone: 1A8, RRID: AB_2740255, Lot# 3220031	(1:80)
Anti-Ly6C(Percp)	Biolegend	Cat# 128028, clone: HK1.4, RRID: AB_10900235, Lot# B401995	(1:320)
Anti-F4/80 (PE-CF594)	BD Biosciences	Cat# 565613, clone: T45-2342, RRID: AB_2734770, Lot# 1165073	(1:200)
Anti-CD41 (PE)	BD Biosciences	Cat# 558040, clone: MWReg30, RRID: AB_397004, Lot# 6168978	(1:100)

Anti-CD45 (BV421)	Biolegend	Cat# 103134, clone: 30-F11, RRID: 103134, Lot# B383535	(1:160)
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1193

1194 **Supplemental table 2: IMC antibodies**

Antibody	Clone	Source of reference	Metal Tag	Catalogue number	Lot Number	Dilution
Anti-aSMA	1A4	Standard BioTools	141Pr	3141017D	NA	(1:50)
Anti-Nestin	EPR22023	abcam	143Nd	ab237036	#2209186-12	(1:50)
Anti-pTyrosine	P-Tyr-100	Standard BioTools	144Nd	3144024D	#0461804	(1:100)
Anti-Keratin 5	Poly19055	Biolegend	146Nd	905504	#2209163-09	(1:100)
Anti-EpCAM	EPR20532-222	Standard BioTools	147Sm	91H024147	#2112506-23	(1:100)
Anti-Vimentin	D21H3	Standard BioTools	149Sm	91H049149	#2209091-07	(1:100)
KI67	B56	Standard BioTools	150Nd	91H017150	#24084328-07	(1:100)
Anti-CD45	D3F8Q	Standard BioTools	151Eu	91H029151	#2209084-07	(1:100)
Anti-Fibronectin	EPR19241-46	Standard BioTools	152Sm	91H028152	#2201759-24	(1:100)
Anti-CD44	IM7	Standard BioTools	153Eu	3153029D	#2209184-12	(1:200)
Anti-Beta-actin	2F1-1	Standard BioTools	154Sm	3154021D	#2209352-21	(1:200)
Anti-Granzyme B	EPR22645-206	Standard BioTools	155Gd	91H026155	#2209083-07	(1:200)
Anti-F4/80	D2S9R	Standard BioTools	156Gd	91H030156	#24042373-22	(1:200)

Anti-E-cadherin	24 E 10	Standard BioTools	158Gd	3158029D	#23115540-27	(1:200)
Anti-CD4	BLR167J	Standard BioTools	159Tb	91H031159	#24042446-24	(1:200)
Anti-iNOS	BLR167J	Standard BioTools	160Gd	91H025160	#2209085-07	(1:200)
Anti-MHC class2	M5/114.15.2	Standard BioTools	161Dy	91H038161	#39086-07	(1:400)
Anti-CD8	EPR21769	Standard BioTools	162Dy	91H023162	#2203629-16	(1:400)
Anti-CD11b	EPR1344	Standard BioTools	163Dy	91H007163	#2209087-07	(1:400)
Anti-pERK1/2	D13.14.4E	Standard BioTools	164Dy	91H039164	#2209098-07	(1:400)
Anti-FoxP3	FJK-16s	Standard BioTools	165Ho	91H032165	#2209183-12	(1:400)
Anti-Ly-6G	1A8	Standard BioTools	166Er	91H037166	NA	(1:400)
Anti-CD3e	APA1/1	BioLegend	167Er	362702	#2209095-07	(1:400)
Anti-Beta-catenin	5H10	Standard BioTools	169Tm	91H022169	NA	(1:400)
Anti-CD31	EPR17259	Standard BioTools	171Yb	91H027171	#3031904	(1:500)
Anti-BRCA1	MS110	Standard BioTools	172Yb	3172030D	#2209179-12	(1:500)
Anti-Collagen type 1	NA	Standard BioTools	173Yb	91H018173	#2209094-07	(1:800)
Anti-Pan-cytokeratin	AE-1/AE-3	Standard BioTools	174Yb	91H006174	#1112004	(1:800)
Anti-pS6(s235/s236)	N7-548	Standard BioTools	175Lu	3175031D	#22022353-28	(1:1000)

Anti-CD45R/B220	RA36B2	Standard BioTools	176Yb	91H036176	#2209080-07	(1:1000)
Anti-ICSK1	ICSK1	Standard BioTools	195Pt	201500	#2209165-09	(1:1000)
Anti-ICSK2	ICSK2	Standard BioTools	196Pt	201500	#2209078-07	(1:1000)
Anti-ICSK3	ICSK3	Standard BioTools	198Pt	201500	#2211343-30	(1:2000)

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1196