Supplementary files

Changes in the microarchitecture of the pancreatic cancer stroma are linked to neutrophil-dependent reprogramming of stellate cells and reflected by diffusion-weighted magnetic resonance imaging

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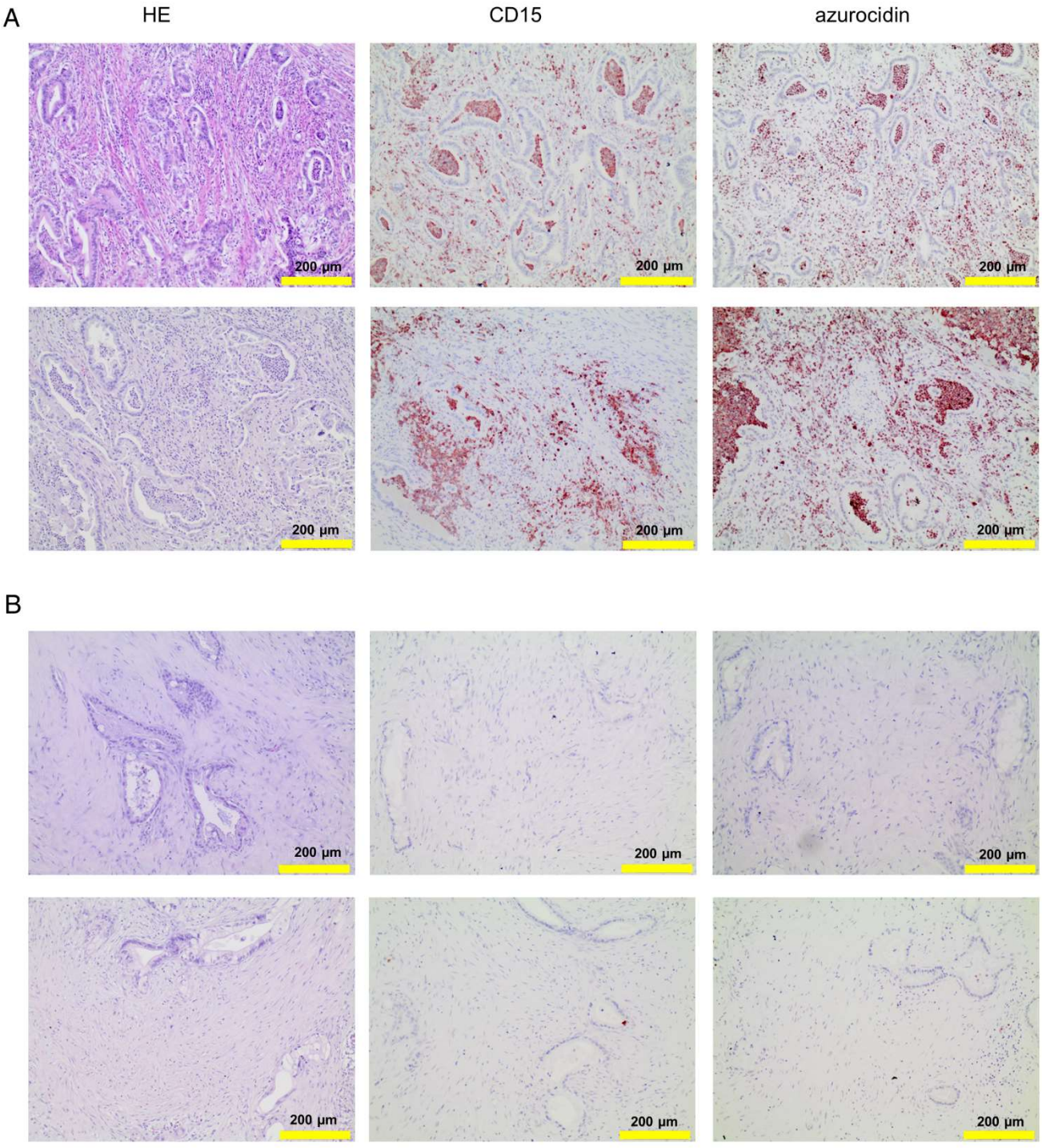
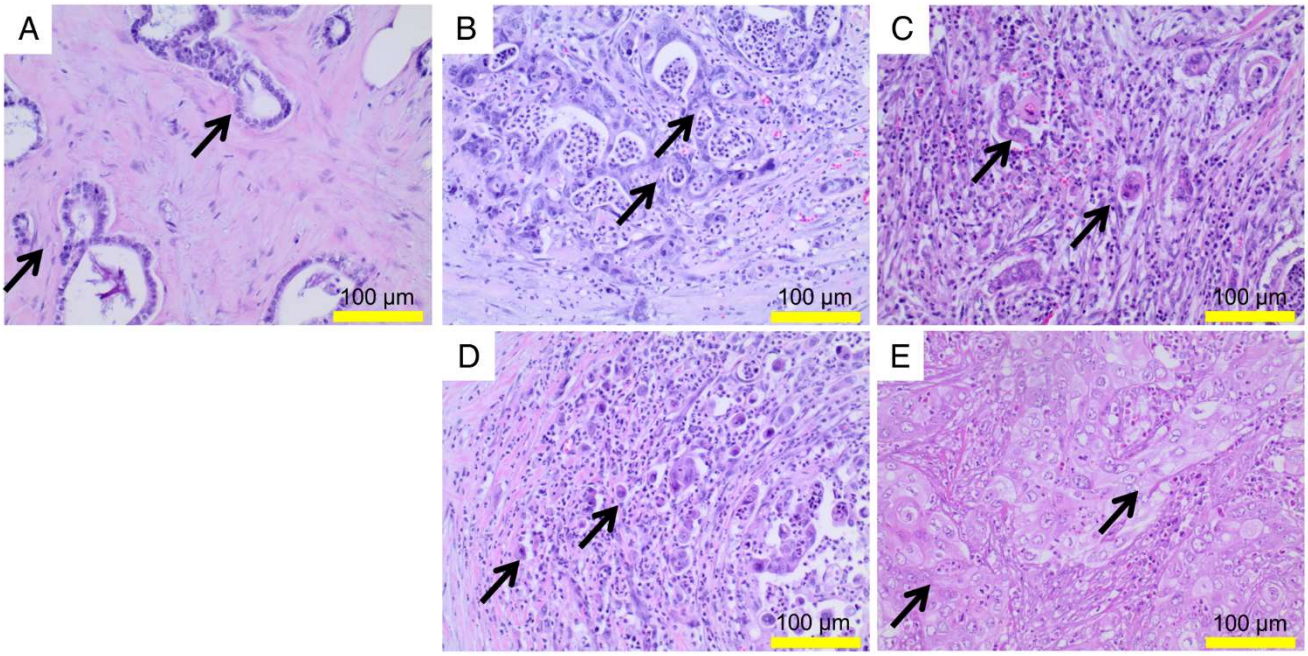
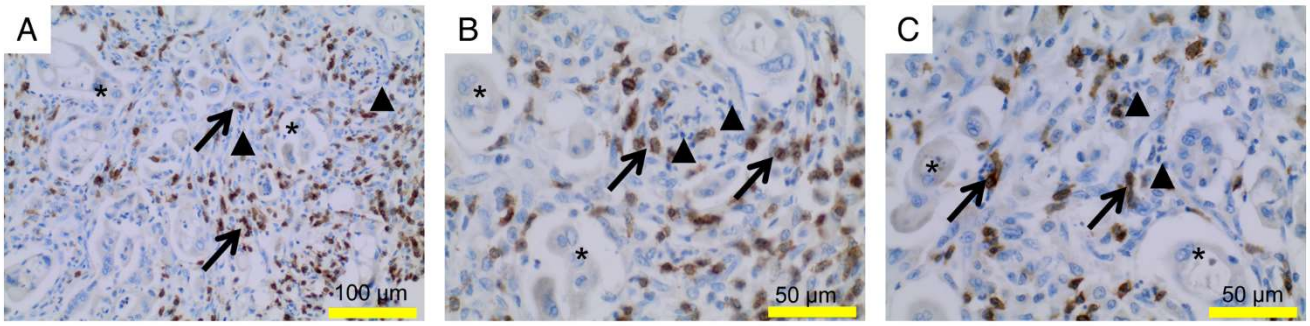


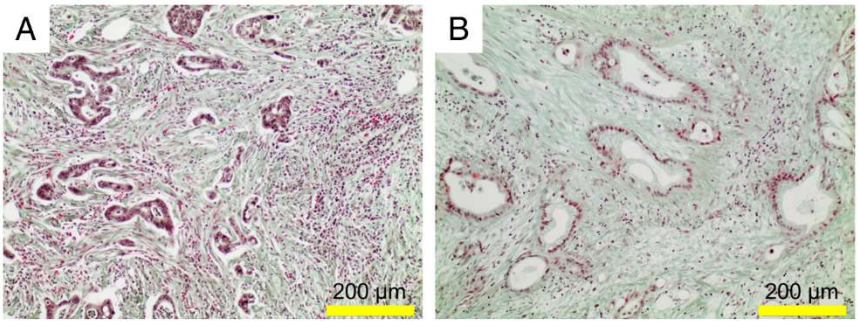
Suppl. Figure S1: Examples of tissue staining for the patients of cohort 2: (A) shows tissue with high PMN infiltrate; **(B)** with low PMN infiltrate. **Abbreviations:** CD15: cluster of differentiation antigen 15; HE: hematoxylin and eosin.



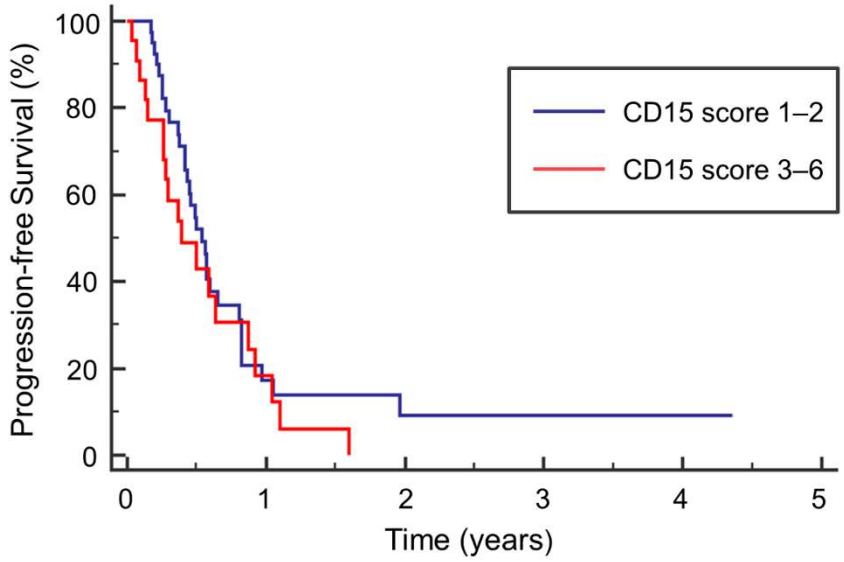
Suppl. Figure S2: Examples of tissue specimen with different growth patterns are shown. (A) ductal ("conventional"); (B) microglandular; (C) micropapillary; (D) single cellular; (E) solid.



Suppl. Figure S3: Presence of T cells in PDAC tissue: T cells were identified by expression of CD3 (brown staining; arrow), and are found in areas with high PMN density (PMN in blue, arrow head). (The asterisks indicate tumor cells).



Suppl. Figure S4: Examples for tissue staining using Masson-Goldner Trichrome stain: (A) tissue with high PMN infiltrate (B) tissue with low PMN infiltrate.



Suppl. Figure S5: Kaplan Meier progression-free survival analysis in dependence of the PMN infiltrate: The Log-rank test did not detect a significant difference between patients with low PMN score (blue line) or high PMN score (red line). **Abbreviations:** CD15: cluster of differentiation antigen 15.

Suppl. Table S1A. Patients' data

	cohort 1 = MRI cohort	**cohort 2= non-MRI cohort**
number of patients	33	109
female male	21 12	46 63
age (years)	range: 42-85 median: 65	range: 39-85 median: 66
TNM classification		
extent of primary tumor	pT1: 0 pT2: 23 pT3: 10	pT1 : 9 pT2: 81 pT3: 19
regional lymph nodes	pN0: 5 pN1: 7 pN2: 21	pN0: 14 pN1: 42 pN2: 53
grading	G1: 0 G2: 18 G3: 15	G1: 4 G2: 73 G3: 30 2 patients were excluded because of neoadjuvant radiochemotherapy
distant metastasis	pM1: 2	pM1: 13
Progression-free survial		
	Follow-up data regarding progression-free survival were available from **18** of cohort 1. **13** patients had progression of disease within 98 - 1434 days after surgery (median	Follow-up data regarding progression-free survival were available from **44** patients of cohort 2. **37** patients had progression of disease within 26 - 1164 days after surgery (median 333 d). **7** patients had no evidence of progression of disease after a

	302 d). **5** patients had no evidence of progression of disease after a follow-up period of 159 - 1110 days after surgery (median 210 d).	follow-up period of 169 – 3183 days after surgery (median 400 d).

Suppl. Table S1B. Multivariate progression-free survival analysis in 62 patients* based on the Cox model.

	Hazard ratio	**95% confidence interval**	**p-value**
Grading			
G1-2	Reference	-	-
G3	1.73	0.88 – 3.40	0.1110
CD15-Score			
Score 1-2	Reference	-	-
Score 3-6	1.69	0.88 – 3.26	0.1170

* Follow-up data regarding progression-free survival were available from 18 of cohort 1 and 44 patients of cohort 2.

Suppl. Table S2. Results of the histologic evaluation

density of CD15 pos. PMN	**number of tumors**
0-20	42
21-40	17
41-60	11
61-80	4
81-100	17
>101	18
intensity of α-SMA-positive stellate cells	
1	21
2	50
3	38
Distribution of α-SMA-positive stellate cells	
1	1
2	43
3	43
4	13
5	9
Allred score stellate cells	
2	1
3	14
4	30
5	23
6	25
7	9
8	7

Suppl. Table S3A. Association of the altered growth pattern with PMN density

PMN density	**altered growth pattern**	**unaltered growth pattern**
	number of patients (cohort 2 only)	
score 1,2	16	43
score 3-6	37	13

The distribution is highly significant according to Fisher's two-tailed test at a level of $p<0.0001$; chi square 10^{-6}.

Suppl. Table S3B. Association of histological grading and PMN density

PMN density	**G1 and G2**	**G3**
	number of patients (cohort 1 and 2)*	
score 1,2	63	21
score 3-6	32	24

The distribution is significant according to Fisher's exact test at a level of $p<0.05$; chi square 0.042; only data of 140 patients were available, because two patients were excluded from grading because of neoadjuvant radiochemotherapy.