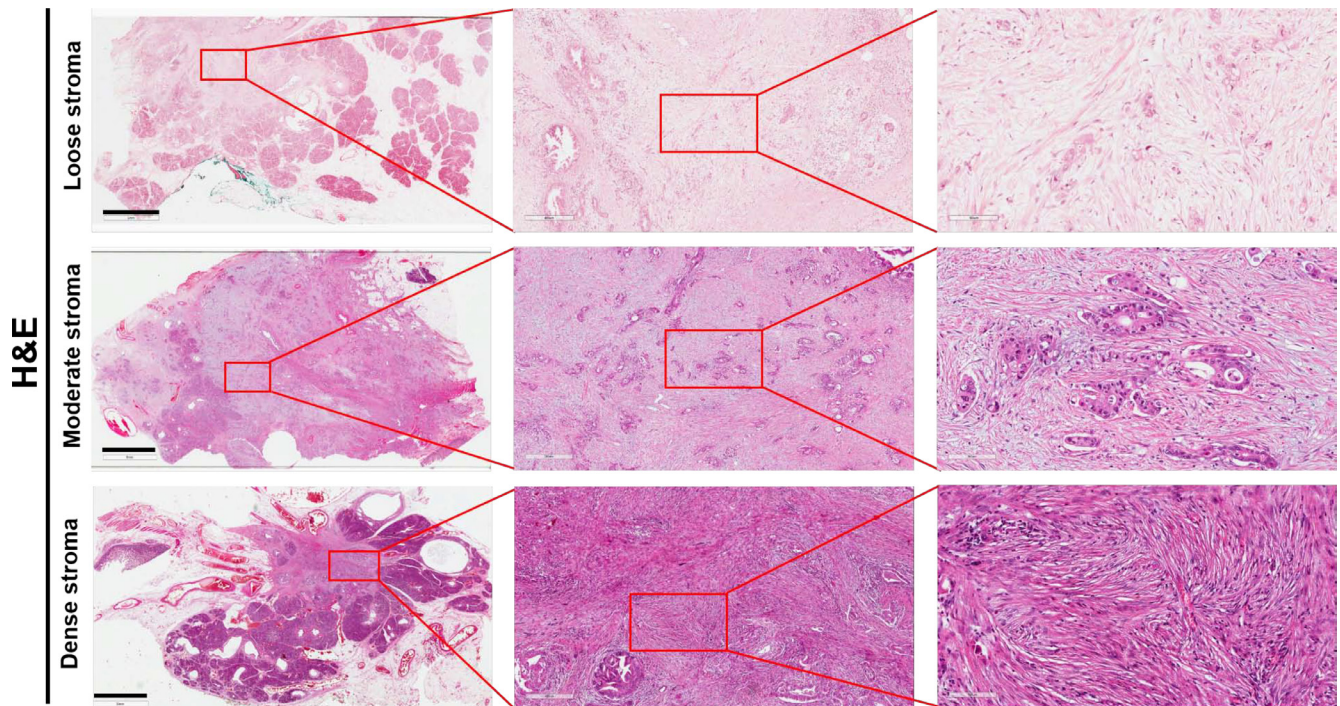
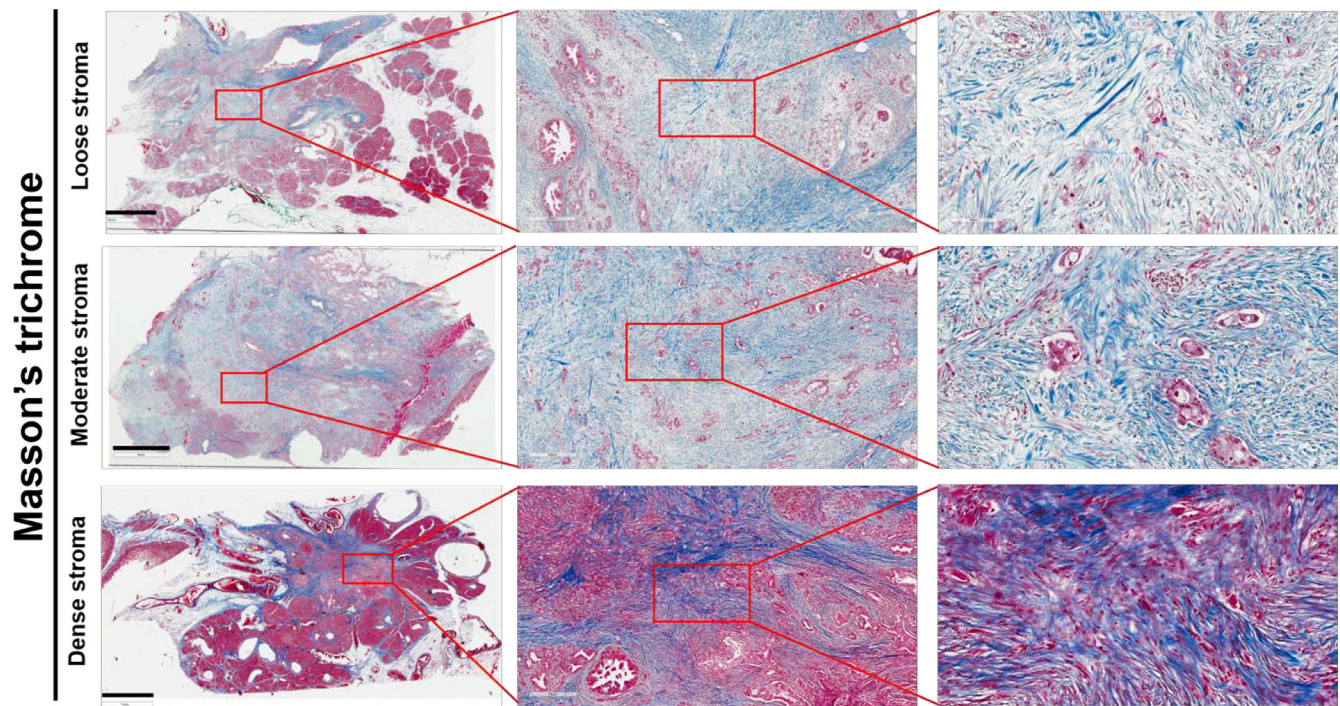


## The prognostic role of desmoplastic stroma in pancreatic ductal adenocarcinoma

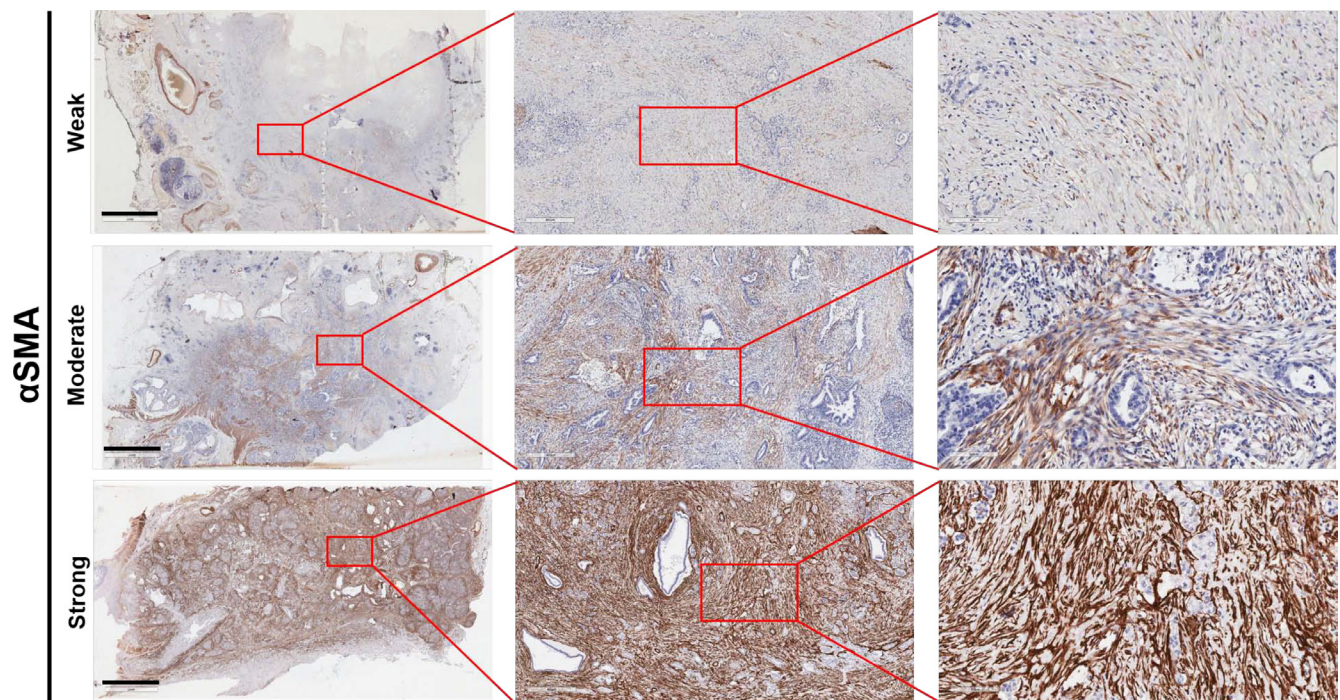
### Supplementary Materials



**Supplementary Figure S1: Immunohistochemical patterns of desmoplastic stroma density (same sections as in Figure 1A).** Stroma was defined as loose, moderate or dense based on H & E staining, as indicated. The left panels illustrate large pancreatectomy sections (Bar: 5 mm). The magnifications of the middle and right inserts are x50 and x200, respectively.



**Supplementary Figure S2: Immunohistochemical patterns of desmoplastic stroma collagen (same sections as in Figure 1A).** Collagen was stained using Masson's trichrome (blue colour). The left panels illustrate large pancreatectomy sections (Bar: 6 mm). The magnifications of the middle and right inserts are x50 and x200, respectively.



**Supplementary Figure S3: Immunohistochemical staining of alpha smooth muscle actin ( $\alpha$ SMA) (same sections as in Figure 1B).**  $\alpha$ SMA was defined as weak/negative, moderate and strong. The left panels illustrate large pancreatectomy sections (Bar: 6 mm). The magnifications of the middle and right inserts are x50 and x200, respectively.

**Supplementary Table S1: Clinicopathological characteristics of the cohort**

	<i>n</i> (%)
<b>Age</b>	
< median (65 years)	63 (43.4%)
≥ median	82 (56.6%)
<b>Gender</b>	
Male	68 (46.9%)
Female	77 (53.1%)
<b>Tumor site</b>	
Head	120 (82.8%)
Other	25 (17.2%)
<b>pT-staging</b>	
pT1–2	88 (60.7%)
pT3–4	57 (39.3%)
<b>pN-staging</b>	
pN0	35 (24.1%)
pN+	110 (75.9%)
<b>Grading</b>	
G1	8 (5.5%)
G2	94 (64.8%)
G3	43 (29.7%)
<b>Resection margins</b>	
R0	54 (37.2%)
R1	91 (62.8%)
<b>Type of surgery</b>	
Whipples	92 (63.4%)
Pylorus preserving	38 (26.2%)
Total pancreatectomy	15 (10.4%)
<b>PNI</b>	
no	114 (78.6%)
yes	31 (21.4%)
<b>VI</b>	
no	52 (35.9%)
yes	93 (64.1%)
<b>LI</b>	
no	53 (36.6%)
yes	92 (63.4%)
<b>Chemotherapy</b>	
No	19 (13.1%)
1–2 cycles	32 (22.1%)
≥ 3 cycles	94 (64.8%)

Abbreviations: VI, vascular invasion; LI, lymphatic invasion; PNI, perineural/neural invasion;

**Supplementary Table S2: Prognostic impact of stroma density**

<b>Stroma marker</b>	<b>OS <i>p</i>-value</b>	<b>PFS <i>p</i>-value</b>	<b>LPFS <i>p</i>-value</b>	<b>DMFS <i>p</i>-value</b>
<b>Stroma density</b>				
Loose vs moderate	0.277	0.396	0.388	0.303
Loose vs highly dense	<b>0.001</b>	<b>0.001</b>	<b>0.001</b>	<b>&lt; 0.001</b>
Moderate vs highly dense	<b>0.007</b>	<b>0.001</b>	<b>0.002</b>	<b>0.003</b>

Abbreviations: OS, overall survival; PFS, progression-free survival; LPFS, local failure-free survival; DMFS, distant metastases-free survival; significant values have been marked with bold.