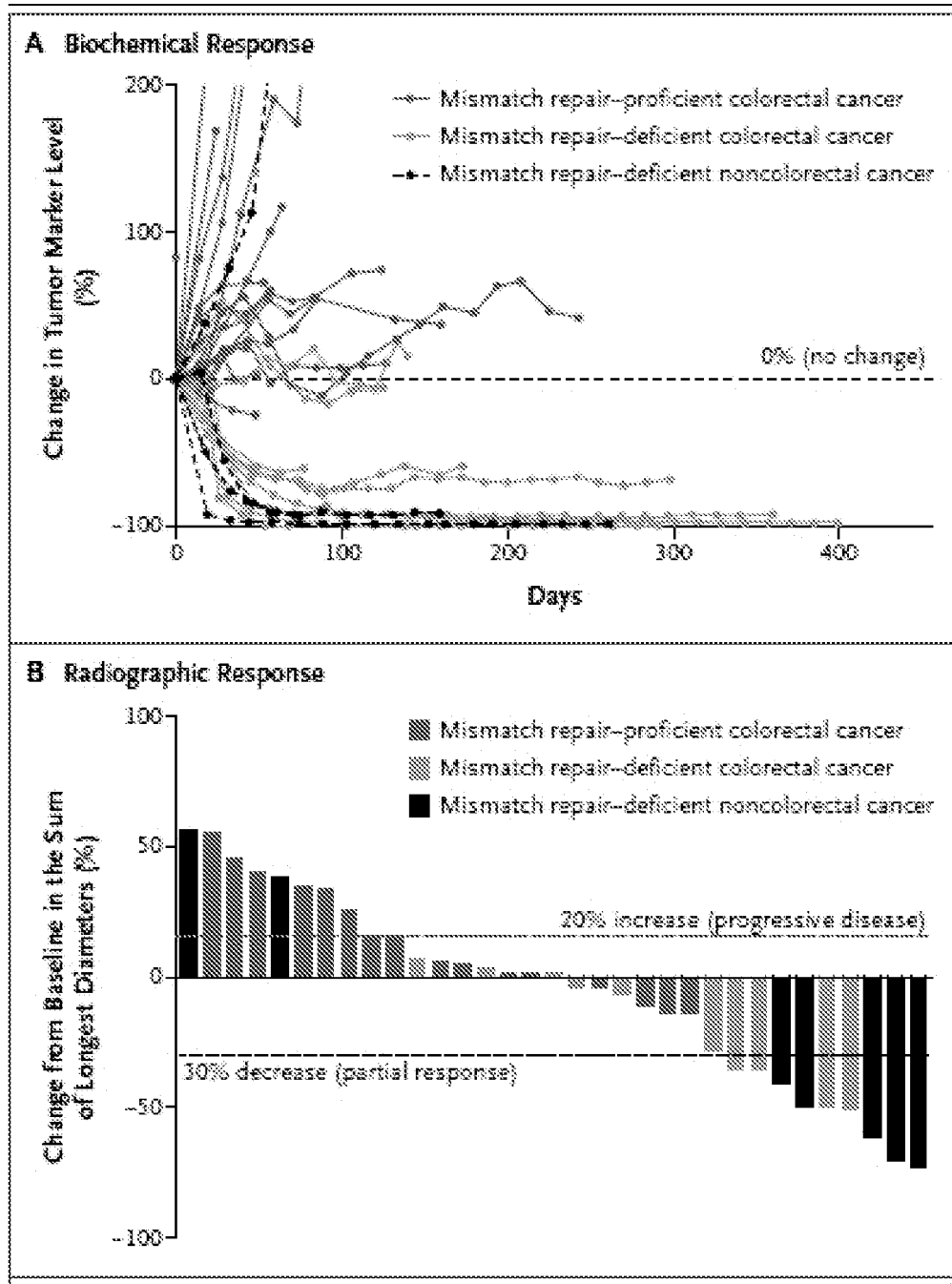
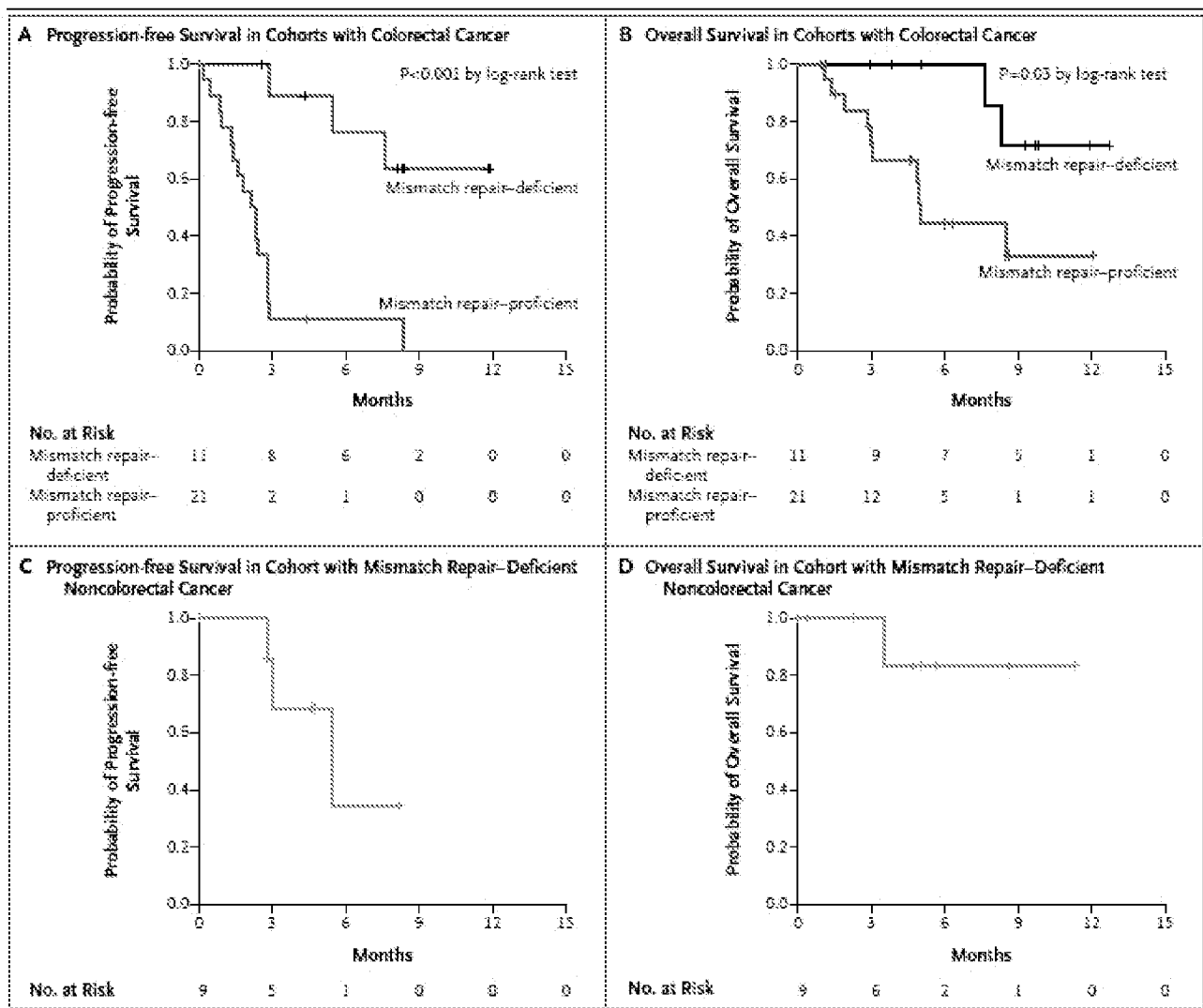




Figs. 1A and 1B



Figs. 2A-2D

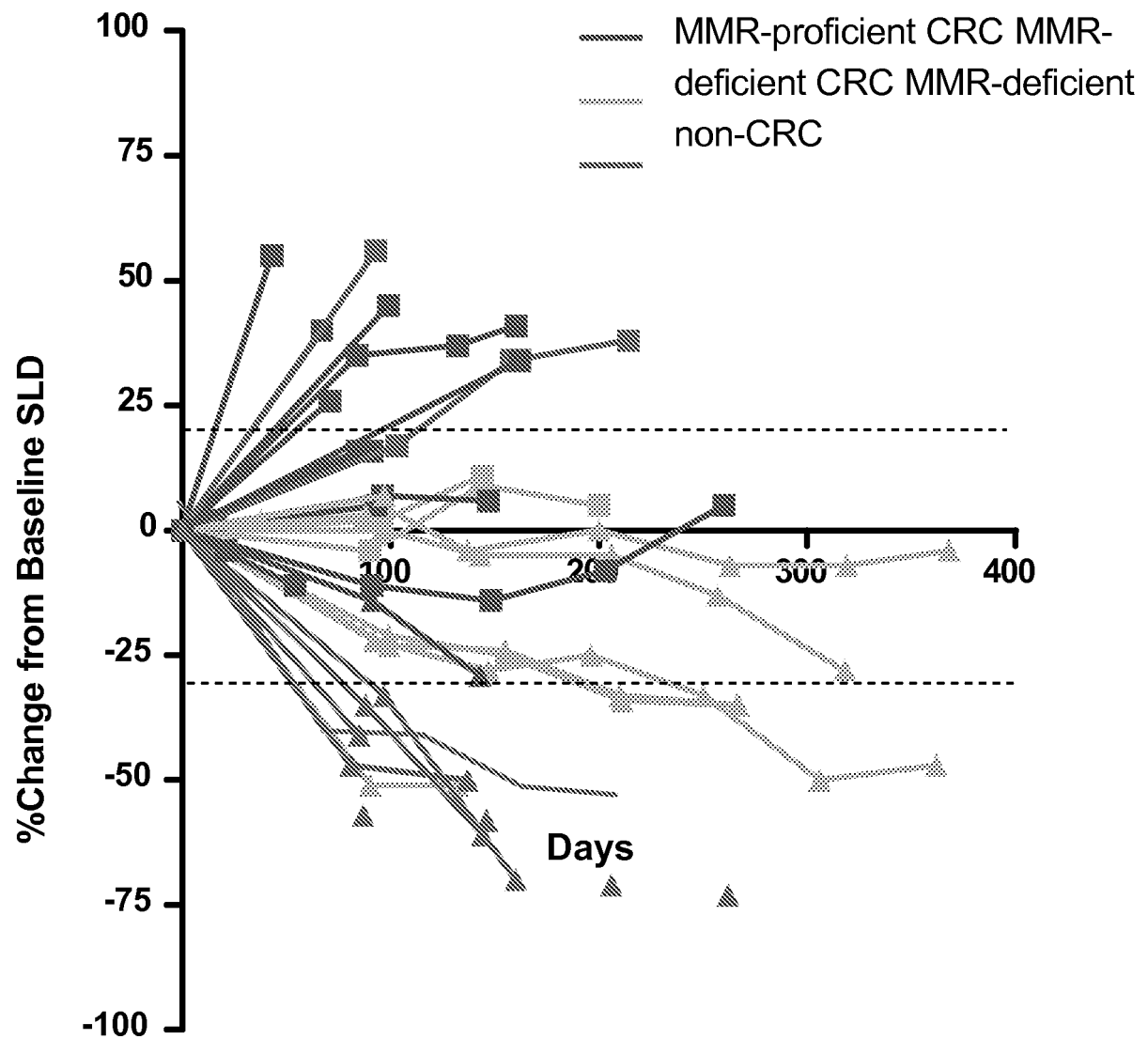
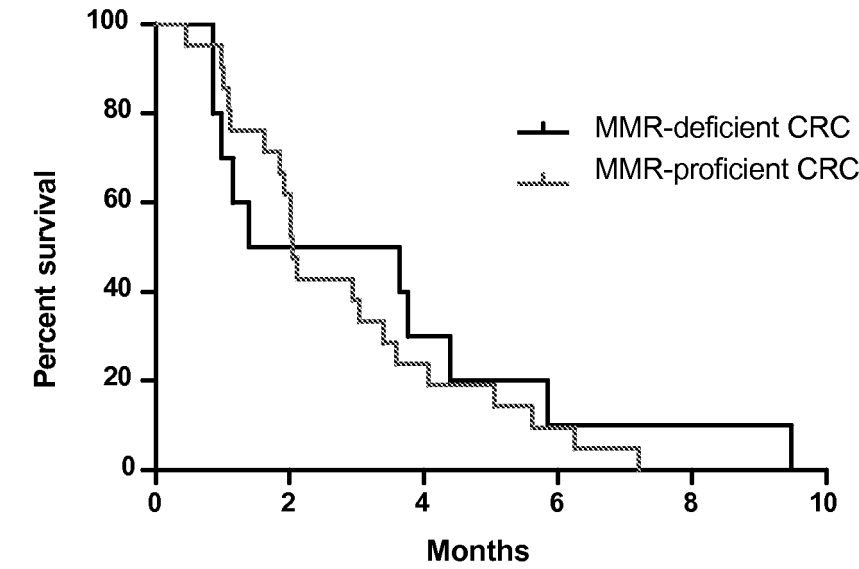
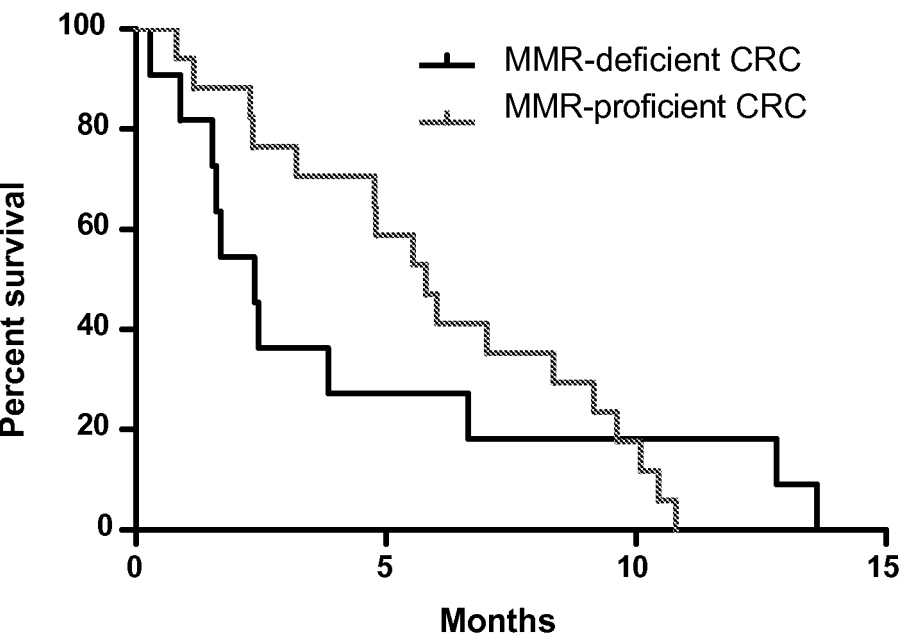


Fig. 3



Figs. 4A



Figs. 4B

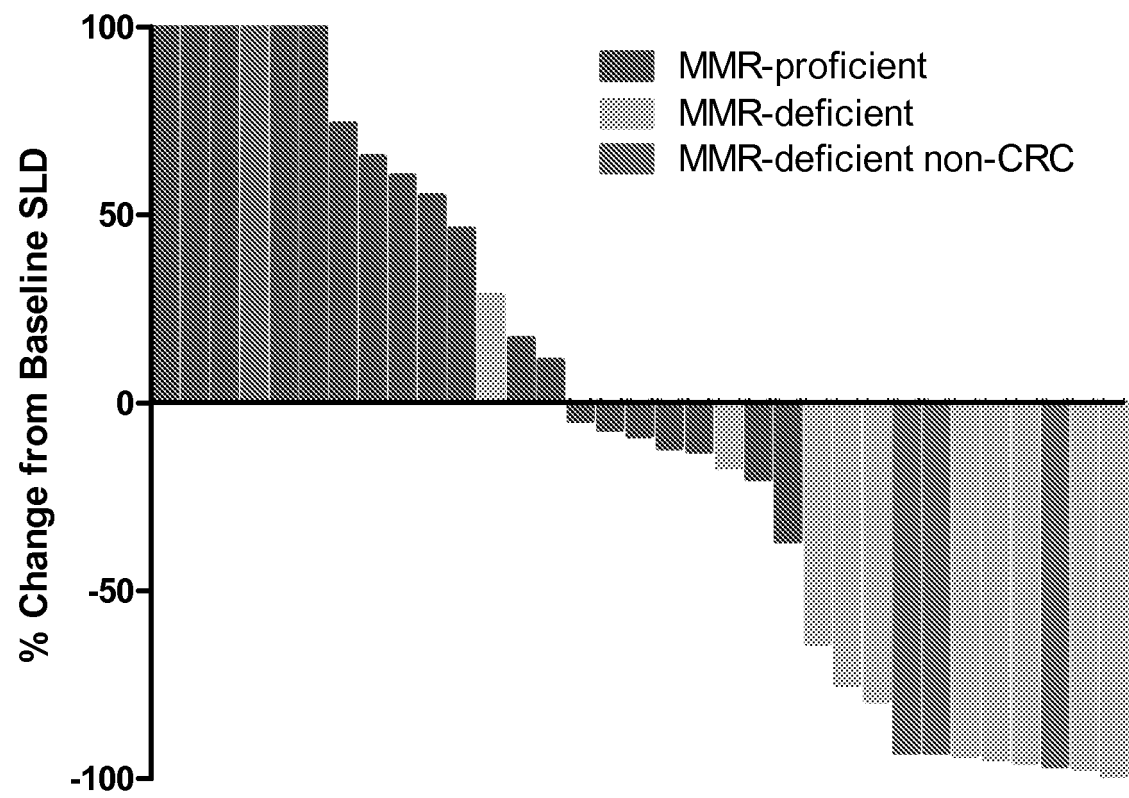


Fig. 5

Figs. 6A

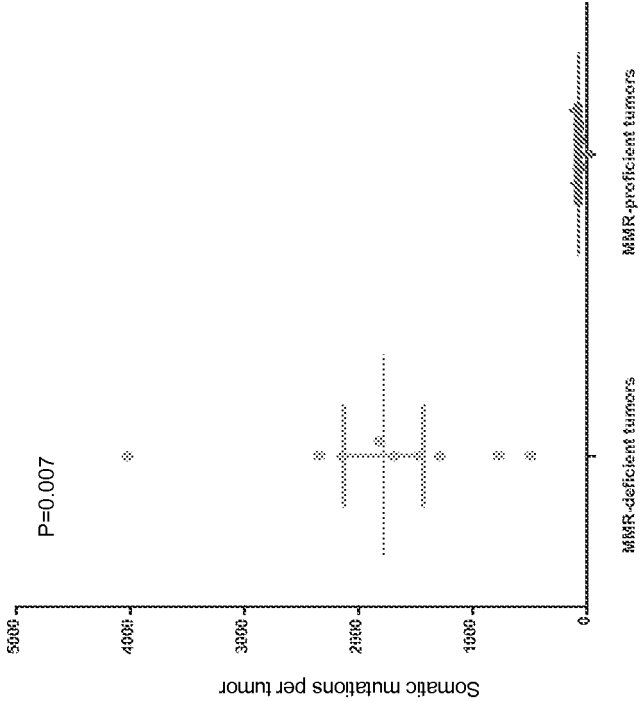
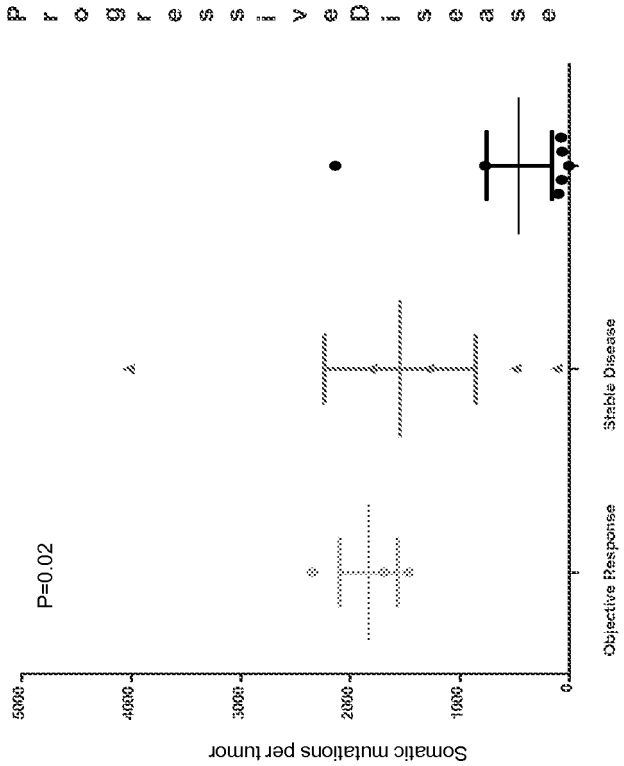


Fig. 6B



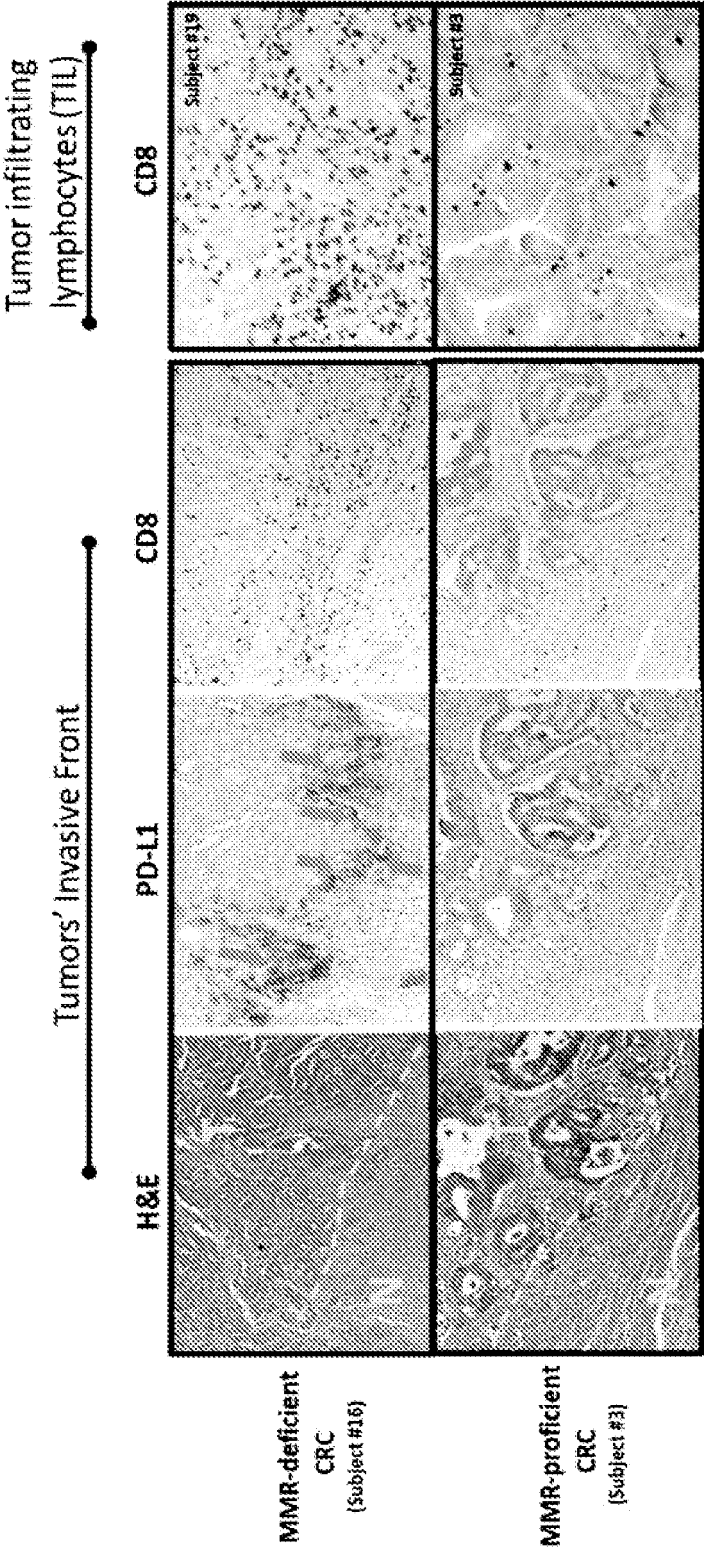


Fig. 7

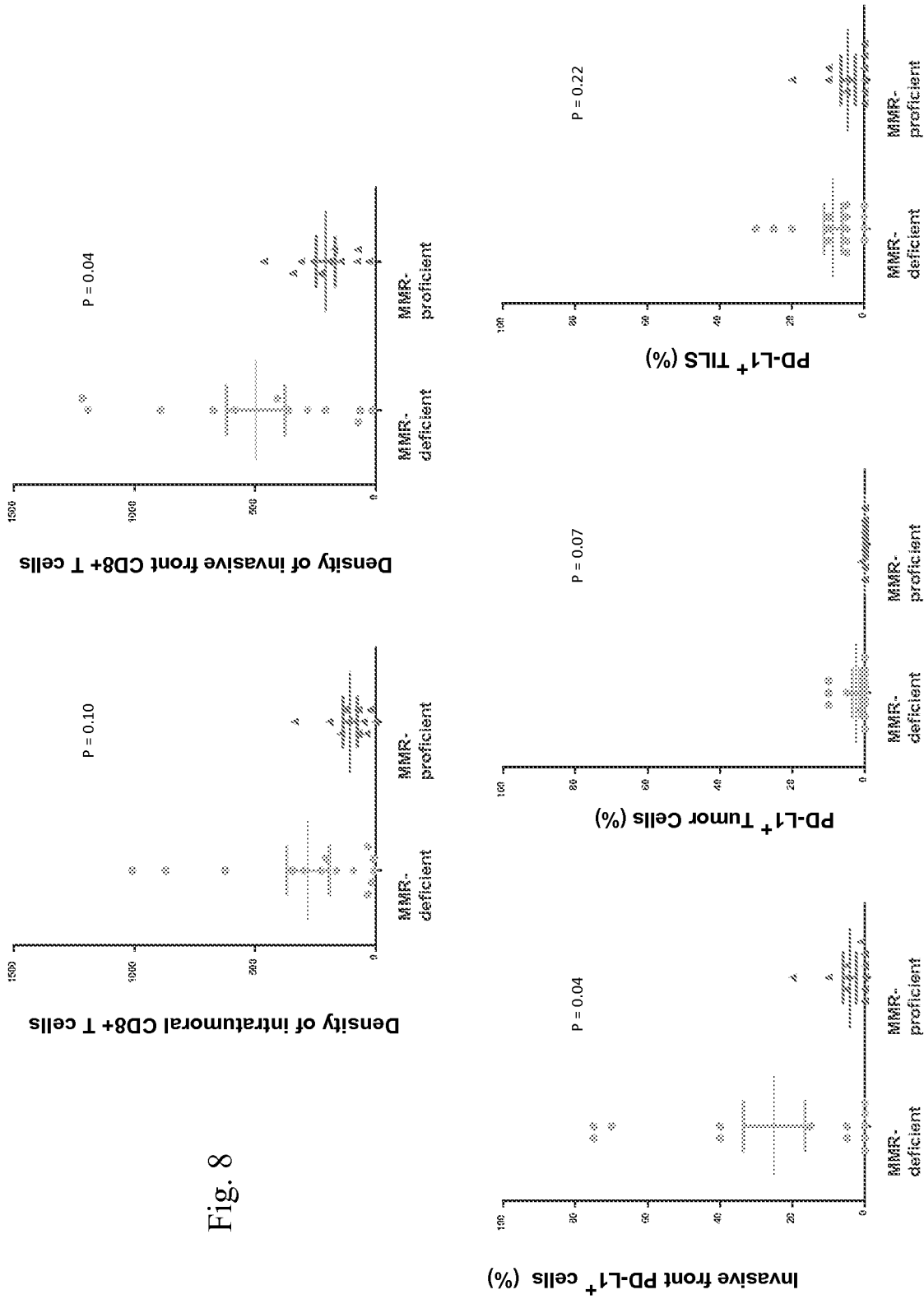


Fig. 8

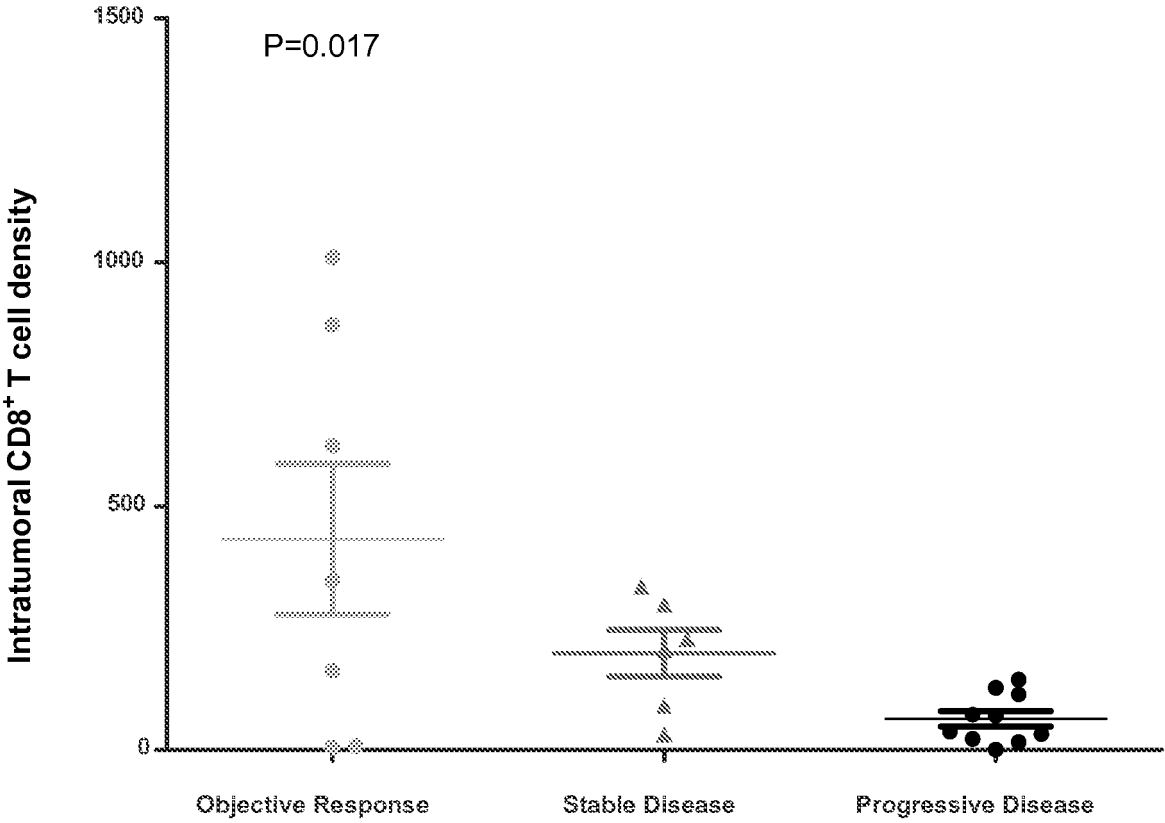


Fig. 9

Fig. 10. Comparison of immune-related and RECIST response criteria

CR		PR	SD	PD
RECIST 1.1	All lesions gone	> 30% decrease in sum of target lesion diameters from baseline	Neither	> 20% increase in sum of target lesion diameters from nadir
			R, or PD from nadir	
				Appearance of new lesion
irCR		irPR	irSD	irPD
irRC	All lesions gone	SPD of index + any new lesions decreases >50% from baseline	SPD of index + any new lesions neither irCR, irPR, or irPD	SPD of index + any new lesions increases > 25% from nadir
			CR, P	—
		New lesions allowed	New lesions allowed	irPD is based on SPD only
RECIST 1.1= Response Evaluation Criteria in Solid Tumors 1.1; irRC= Immune Related Response Criteria				
CR= complete response; PR= partial response; SD= stable disease; PD= progressive disease; SPD= sum of the product of the perpendicular diameters				

Fig. 11. Immune-related response to treatment

Type of immune-related responses-no (%)	MMR-deficient CRC n=10	MMR-proficient CRC n=18	MMR-deficient non-CRC n=7
Complete Response Partial Response Stable Disease (Week 12) Progressive Disease Not Evaluable ³	0 (0) 4 (40) 5 (50) 1 (10) 0 (0)	0 (0) 0 (0) 2 (11) 11 (61) 5 (28)	1 (14) ¹ 4 (57) ² 0 (0) 2 (29) 0 (0)
Immune-related objective response rate (%)	40	0	71
95% CI	12-74	0-19	29-96
Immune-related disease control rate (%) ⁴	90	11	71
95% CI	55-100	1-35	29-96
Immune-related PFS at 20 weeks (%)	78	11	67
95% CI	40-97	1-35	22-96

¹ Originally PR at 12 that was converted to CR at 20 weeks
² One PR at 12 weeks
³ Patients were considered not evaluable if they did not undergo a 12 week scan due to clinical progression. ⁴ The rate of disease control was defined as the percentage of patients who had a complete response, partial response or stable disease for 12 weeks or more.

Fig. 12. Correlation of total somatic mutations and mutation associated neoantigens (MANA) with clinical outcomes

Trend test to compare CR/PR vs. SD vs. PD

Variable	P value
Total Somatic Mutations	0.024
Mutation-associated neoantigens (MANAs)	0.028

Association of mutations and MANA with response rates

Variable (log scale*)	Odds Ratio	95% Confidence interval		P value
		Lower	Upper	
Total Somatic Mutations	3.312	0.500	21.924	0.214
Mutation-associated neoantigens (MANAs)	3.087	0.617	15.439	0.170

Association of mutations and MANA with PFS

Variable (log scale*)	Hazard Ratio	95% Confidence interval		P value
		Lower	Upper	
Total Somatic Mutations	0.628	0.424	0.931	0.021
Mutation-associated neoantigens (MANAs)	0.599	0.391	0.916	0.018

Association of mutations and MANA with OS

Variable (log scale*)	Hazard Ratio	95% Confidence interval		P value
		Lower	Upper	
Total Somatic Mutations	0.707	0.481	1.038	0.077
Mutation-associated neoantigens (MANAs)	0.676	0.453	1.008	0.055

Fig. 13. Correlation of immune markers with clinical outcome

Trend test to compare CR/PR vs. SD vs. PD

Variable	P value
PD-L1 membranous expression within tumor ($\geq 5\%$ vs. $< 5\%$)	0.208
PD-L1 expression by TIL and associated macrophages at invasive front (%)	0.043
PD-L1 expression by TIL and associated macrophages on TILS within tumor (%)	0.024
CD8 density (cells/mm ²) within tumor	0.017
CD8 density (cells/mm ²) at Invasive front	0.768
CD8 density (cells/mm ²) in non-tumor tissue	0.346

* except for PD-L1 Expression on Tumor ($> 5\%$ vs. $< 5\%$), which is represented as a binary variable

Association of immune markers with response rates

Variable (log scale*)	Odds Ratio	95% Confidence interval		P value
		Lower	Upper	
PD-L1 membranous expression within tumor ($\geq 5\%$ vs. $< 5\%$)	3.200	0.354	28.945	0.301
PD-L1 expression by TIL and associated macrophages at invasive front (%)	1.075	0.820	1.411	0.600
PD-L1 expression by TIL and associated macrophages on TILS within tumor (%)	1.139	0.862	1.506	0.361
CD8 density (cells/mm ²) within tumor	1.337	0.706	2.531	0.372
CD8 density (cells/mm ²) at Invasive front	0.515	0.193	1.374	0.185
CD8 density (cells/mm ²) in non-tumor tissue	1.219	0.535	2.777	0.637

* except for PD-L1 Expression on Tumor ($> 5\%$ vs. $< 5\%$), which is represented as a binary variable

Association of immune markers with PFS

Variable (log scale*)	Hazard Ratio	95% Confidence interval		P value
		Lower	Upper	
PD-L1 membranous expression within tumor ($\geq 5\%$ vs. $< 5\%$)	0.196	0.025	1.518	0.119
PD-L1 expression by TIL and associated macrophages at invasive front (%)	0.899	0.784	1.031	0.126
PD-L1 expression by TIL and associated macrophages on TILS within tumor (%)	0.888	0.765	1.031	0.118
CD8 density (cells/mm ²) within tumor	0.900	0.794	1.020	0.100
CD8 density (cells/mm ²) at Invasive front	1.017	0.607	1.706	0.948
CD8 density (cells/mm ²) in non-tumor tissue	1.144	0.780	1.677	0.492

* except for PD-L1 Expression on Tumor ($> 5\%$ vs. $< 5\%$), which is represented as a binary variable

Association of immune markers with OS

Variable (log scale*)	Hazard Ratio	95% Confidence interval		P value
		Lower	Upper	
PD-L1 membranous expression within tumor ($\geq 5\%$ vs. $< 5\%$)	0.513	0.062	4.232	0.535
PD-L1 expression by TIL and associated macrophages at invasive front (%)	0.978	0.816	1.173	0.813
PD-L1 expression by TIL and associated macrophages on TILS within tumor (%)	0.931	0.762	1.138	0.487
CD8 density (cells/mm ²) within tumor	0.918	0.813	1.036	0.167
CD8 density (cells/mm ²) at Invasive front	0.986	0.502	1.934	0.967
CD8 density (cells/mm ²) in non-tumor tissue	1.018	0.635	1.631	0.941

* except for PD-L1 Expression on Tumor ($> 5\%$ vs. $< 5\%$), which is represented as a binary variable