

Supplementary Material

Serum biomarkers confirming stable remission in inflammatory bowel disease

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SUPPLEMENTARY TABLE S1. Comparison of fecal biomarkers (in mg/kg)

Marker	IBD (n=40)			P ^a	UC (n=30)			P ^a
	Stable Remission Median (95%CI)	Unstable Remission Median (95%CI)	AUC (95%CI)		Stable Remission Median (95%CI)	Unstable Remission Median (95%CI)	AUC (95%CI)	
fecal S100A12	0.90 (0.09-15.50)	1.20 (0.04-11.70)	0.558 (0.36-0.75)	0.567	0.86 (0.09-4.15)	1.25 (0.11-11.70)	0.661 (0.45-0.87)	0.169
Fecal Calprotectin	30.4 (1.3-365.5)	62.1 (13.2-350.0)	0.674 (0.49- 0.86)	0.089	25.9 (13.2-128.5)	54.5 (1.5-365.5)	0.591 (0.38-0.80)	0.395

CI, confidence interval; AUC, area under curve; ^a significance of ROC analyses

SUPPLEMENTARY TABLE S2. Performance of significant serum biomarkers in UC (T2<60 days, n=27) with significant differences at T1

UC (with T2 in < 60 days, n=27)					
Marker	Stable Remission Median (95%CI)	Unstable Remission Median (95%CI)	AUC (95%CI)	P ^a	P adj. ^b
IL-1β	1.38 (0.4-2.25)	3.62 (1.03-8.63)	0.761 (0.58-0.94)	0.022	<i>n.s.</i>
IL-8	15.62 (12.51-43.53)	28.06 (20.60-68.36)	0.739 (0.54-0.94)	0.036	<i>n.s.</i>
IL-15	3.99 (2.99-5.63)	8.17 (4.91-9.40)	0.800 (0.63-0.97)	0.008	0.045
IL-21	925 (10-2857)	2182 (1326-6266)	0.767 (0.59-0.95)	0.019	<i>n.s.</i>
IL-25	962 (28.28-1683)	2847 (617-8210)	0.789 (0.62-0.96)	0.011	<i>n.s.</i>
IFNβ	73.41 (10-1260)	2501 (10-4492)	0.756 (0.57-0.94)	0.025	<i>n.s.</i>
CXCL9	26.32 (13.51-42.15)	62.97 (35.6-116.5)	0.794 (0.61-0.97)	0.009	0.040
CXCL10	212 (124-277)	322 (238-597)	0.783 (0.61-0.96)	0.013	0.017
CXCL11	26.6 (12.05-84.27)	151 (46.53-192)	0.822 (0.66-0.99)	0.005	0.007
G-CSF	15.99 (9.6-27.00)	61.4 (20.1-194)	0.756 (0.56-0.95)	0.025	<i>n.s.</i>
S100A8/A9	2215 (1480-3300)	3920 (3270-6100)	0.822 (0.64-1.00)	0.005	0.017

All in pg/ml, except for S100A8/A9 (ng/ml) and IFN β (U/ml); CI, confidence interval; AUC, area under curve; ^asignificance of ROC analyses; ^badjusted significance using Kruskal Wallis test with Bonferroni post-hoc correction for multiple comparisons

SUPPLEMENTARY TABLE S3. IBD relapse prediction model according to binary logistic regression

Step 0			Step 1		
Variable	Score	P	Change in -2 Log Likelihood	P	Model correct prediction (%)
S100A8/A9	5.548	0.019	5.883	0.015	70
CXCL9	5.312	0.021	2.898	0.089	
CXCL10	4.011	0.045	2.774	0.096	
CXCL11	2.720	0.099	2.718	0.099	
IL-21	2.064	0.151	2.207	0.137	
Galectin-1	1.630	0.202	0.300	0.584	

SUPPLEMENTARY TABLE S4. UC relapse prediction model according to binary logistic regression

Step 0			Step 1			Step 2		
Variable	Score	P	Change in -2 Log Likelihood	P	Model correct prediction (%)	Change in -2 Log Likelihood	P	Model correct prediction (%)
CXCL11	8.373	0.004	9.563	0.002	67	5.956	0.015	80
S100A8/A9	8.061	0.005	5.211	0.022	-	5.509	0.019	80
CXCL9	5.908	0.015	1.570	0.210		0.155	0.693	
IL-21	5.638	0.018	2.048	0.152		1.483	0.223	
CXCL10	5.166	0.023	2.050	0.152		3.121	0.077	
Galectin-1	2.830	0.093	2.071	0.150		2.072	0.150	

SUPPLEMENTARY TABLE S5. Performance of markers with predictive potential

Marker	IBD (n=40)					UC (n=30)				
	AUC (95%CI)	Cut-Off	Sensitivity	Specificity	LR	AUC (95%CI)	Cut-Off	Sensitivity	Specificity	LR
CXCL11	0.700 (0.53-0.87)	131 pg/ml	58%	85%	3.5	0.787 (0.61-0.96)	102 pg/ml	67%	87%	5.0
S100A8/A9	0.757 (0.60-0.91)	3205 ng/ml	70%	80%	3.5	0.849 (0.69-0.99)	3475 ng/ml	73%	87%	5.5

CI, confidence interval; AUC, area under curve; LR, likelihood ratio