

**Table S3. Parameters of OPLS–DA models applying various normalization and scaling methods for discriminating baseline fecal samples in three comparison cases.**

Models	Parameters	Normalization methods				
		Area	Min-max	Amide	Vecto r (1st)	Vector (2nd)
HC vs. UC	Scaling method	<b>Par</b>	UV	Par	Par	UV
	Component number (orthogonal + predictive)	<b>1+10</b>	1+11	1+8	1+8	1+5
	R <sup>2</sup> Y	<b>0.890</b>	0.890	0.857	0.986	0.989
	Q <sup>2</sup> Y	<b>0.870</b>	0.860	0.834	0.969	0.959
	R <sup>2</sup> Y intercept	<b>0.119</b>	0.15	0.087	0.46	0.681
	Q <sup>2</sup> Y intercept	<b>−0.258</b>	−0.284	−0.207	−0.606	−0.732
	CV-ANOVA ( <i>p</i> -value)	<b>0</b>	0	0	0	0
RM vs. NRM (W8)	Scaling method	<b>Par</b>	Par	UV	Par	UV
	Component number (orthogonal + predictive)	<b>1+21</b>	1+6	1+8	1+10	1+6
	R <sup>2</sup> Y	<b>0.954</b>	0.504	0.553	0.985	0.981
	Q <sup>2</sup> Y	<b>0.888</b>	0.408	0.457	0.947	0.915
	R <sup>2</sup> Y intercept	<b>0.374</b>	0.118	0.158	0.606	0.786
	Q <sup>2</sup> Y intercept	<b>−0.656</b>	−0.211	−0.277	−0.801	−0.659
	CV-ANOVA ( <i>p</i> -value)	<b>0</b>	1.22E-13	1.34E-14	0	0
RM vs. NRM (W56)	Scaling method	UV	UV	<b>UV</b>	UV	UV
	Component number (orthogonal + predictive)	1+7	1+8	<b>1+8</b>	1+8	1+6
	R <sup>2</sup> Y	0.402	0.428	<b>0.461</b>	0.983	0.983
	Q <sup>2</sup> Y	0.268	0.274	<b>0.327</b>	0.929	0.922
	R <sup>2</sup> Y intercept	0.156	0.175	<b>0.161</b>	0.699	0.783
	Q <sup>2</sup> Y intercept	−0.247	−0.271	<b>−0.273</b>	−0.712	−0.661
	CV-ANOVA ( <i>p</i> -value)	3.69E−06	8.73E−06	<b>6.05E−08</b>	0	0

CV-ANOVA, cross validated-analysis of variance; HC, healthy controls; OPLS-DA, orthogonal partial least squares-discriminant analysis; UC, ulcerative colitis; UV, unit variance; RM, patients in remission; NRM, patients not in remission. W8, baseline fecal samples from patients after 8 weeks of adalimumab treatment; W56, baseline fecal samples from patients after 56 weeks of adalimumab treatment. Bold characters represent the best parameters of the selected model.