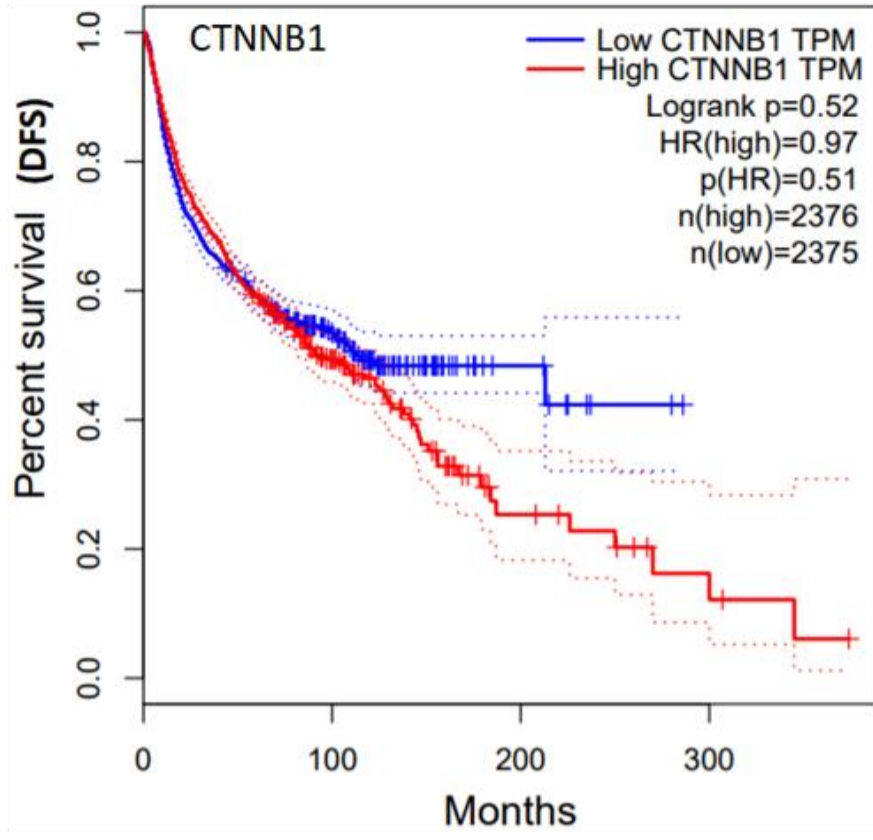
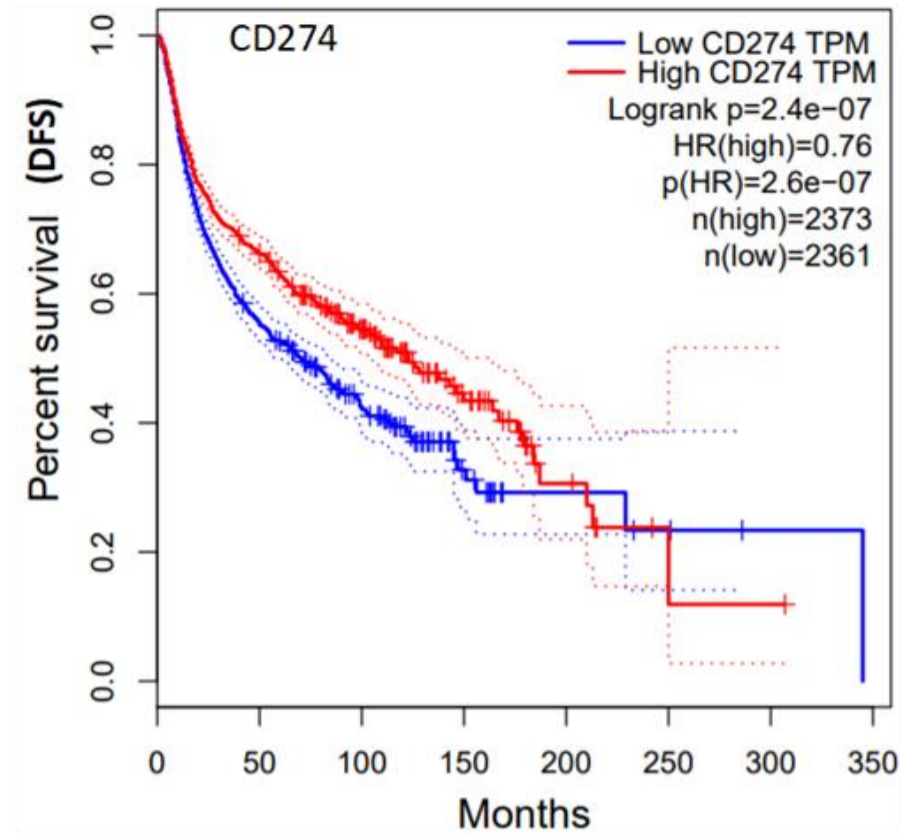
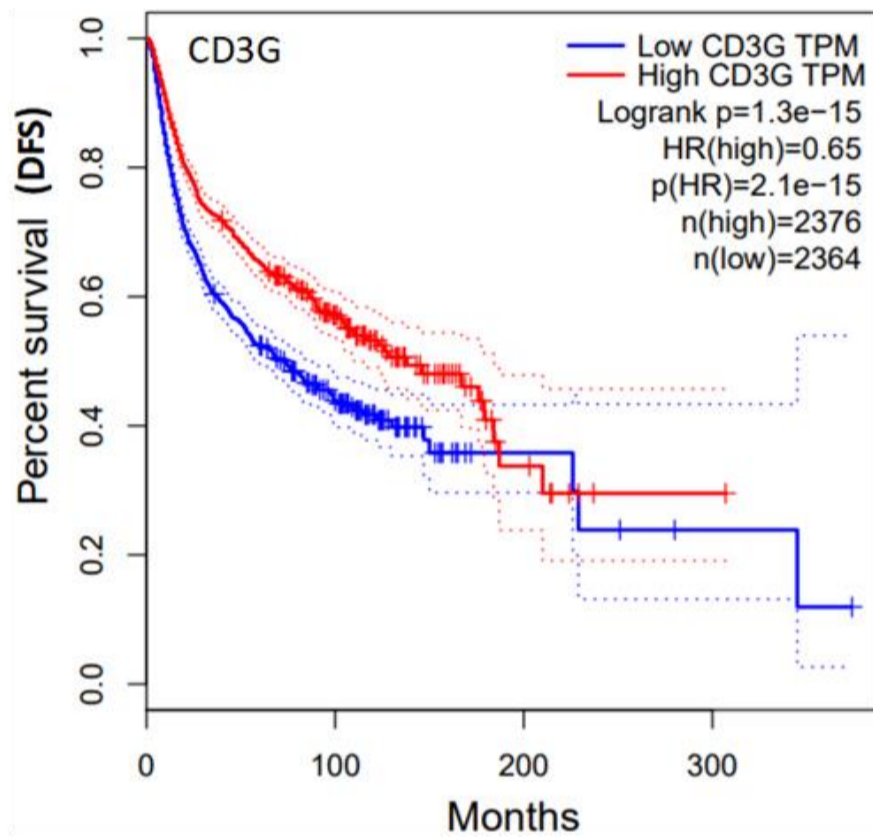
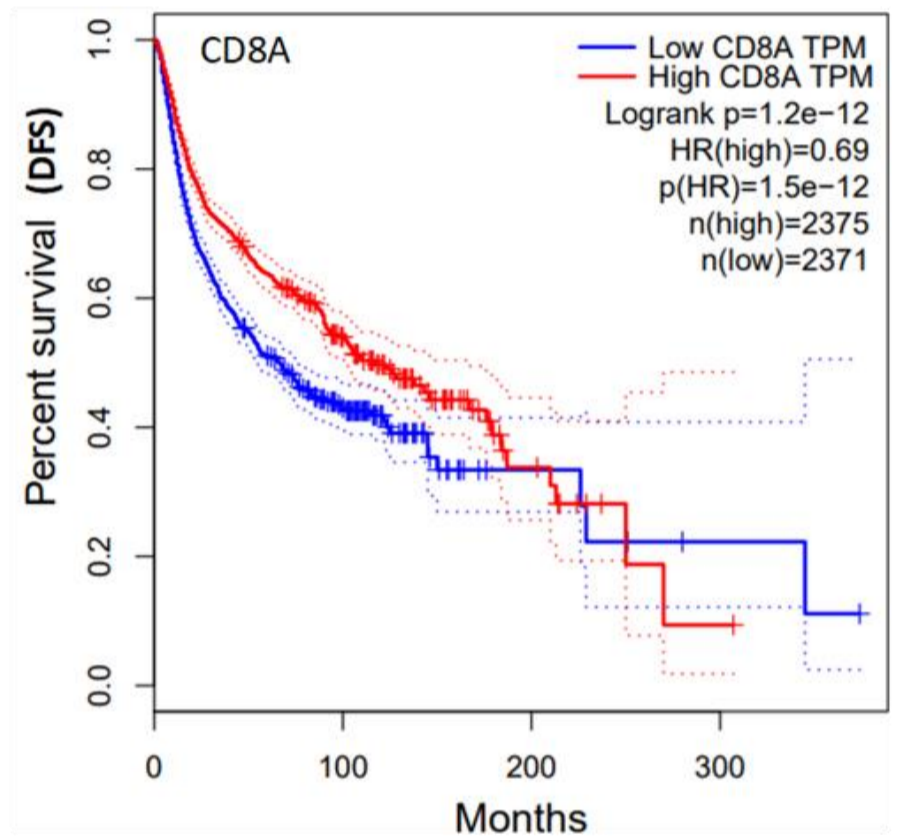


Supplementary Figure S1

**A****B****C****D**

Supplementary Figure S2

**Supplementary Table S1.** Multiple regression analysis of cohort proteome profile show protein factors relevant for the prediction model and their statistical significance

Dependent Y		CTNNB1		
Method		Forward		
Enter variable if P <		0.05		
Remove variable if P >		0.1		
Sample size		23		
Coefficient of determination R <sup>2</sup>		0.415		
R <sup>2</sup> -adjusted		0.356		
Multiple correlation coefficient		0.644		
Residual standard deviation		10.538		
<b>Regression Equation</b>				
Independent variables	Coefficient	Std. Error	t	P
(Constant)	38.886			
CD274	0.527	0.232	2.267	0.035
CD8A	-2.301	0.612	-3.760	0.001
<b>Variables not included in the model</b>				
CD3G				
CD3G/CD8A				
<b>Analysis of Variance</b>				
Source	DF	Sum of Squares	Mean Square	
Regression	2	1572.938	786.469	
Residual	20	2221.094	111.055	
F-ratio		7.0818		
Significance level		P = 0.005		
<b>Zero order correlation coefficients</b>				
Variable	r			
CD274	0.028			
CD3G	-0.446			
CD8A	-0.514			
CD3G/CD8A	-0.096			

**Supplementary Table S2.** Analyses of the quality of our novel patient specific mathematical ICBT response prediction algorithm

<b>Model :</b>	<b>Predict Response = 0.111 + 0.438*CD8A + -5.7284/CTNNB1 + 0.005*CD274^2 + -0.757/CD274^2 - 0.017*CD274*CD8A - 6.003e-5*CD8A^4 - 0.0006*CTNNB1^2</b>
<b>'Fit' Analysis</b>	
<b>R<sup>2</sup> Goodness of Fit</b>	0.99998393
<b>Correlation Coefficient</b>	0.99999219
<b>Maximum Error (ME)</b>	0.011190485
<b>Mean Squared Error (MSE)</b>	1.3388473e-5
<b>Mean Absolute Error (MAE)</b>	0.001940829
<b>Coefficients</b>	8
<b>Complexity</b>	45
<b>Primary Objective</b>	0.001940829
<b>Fit (Normalized Primary Objective)</b>	0.0023406983