

Supplementary material

High Pretreatment Serum PD-L1 Levels are Associated with Muscle Invasion and Shorter Survival in Upper Tract Urothelial Carcinoma

Ádám Széles ^{1,2}, Petra Terézia Kovács ¹, Anita Csizmarik ¹, Melinda Váradi ¹, Péter Riesz ¹, Tamás Fazekas ^{1,2}, Szilárd Váncsa ^{2,3,4}, Péter Hegyi ^{2,3,4}, Csilla Oláh ⁵, Stephan Tschirdewahn ⁵, Christopher Darr ⁵, Ulrich Krafft ⁵, Viktor Grünwald ⁵, Boris Hadaschik ⁵, Orsolya Horváth ⁶, Péter Nyirády ¹ and Tibor Szarvas ^{1,5,*}

¹ Department of Urology, Semmelweis University, Ulloi ut 78/b, 1082 Budapest, Hungary

² Centre for Translational Medicine, Ulloi ut 26, 1085 Budapest, Hungary

³ Institute for Translational Medicine, Medical School, University of Pécs, Szigeti út 12., 7624, Pécs, Hungary

⁴ Division of Pancreatic Diseases, Heart and Vascular Center, Semmelweis University, Budapest, Hungary

⁵ Department of Urology, University of Duisburg-Essen and German Cancer Consortium (DTKK)-University Hospital Essen, Hufelandstraße 55, D-45147 Essen, Germany

⁶ Department of Genitourinary Medical Oncology and Clinical Pharmacology, National Institute of Oncology, Ráth György utca 7-9., 1122 Budapest, Hungary

* Correspondence: szarvas.tibor@med.semmelweis-univ.hu

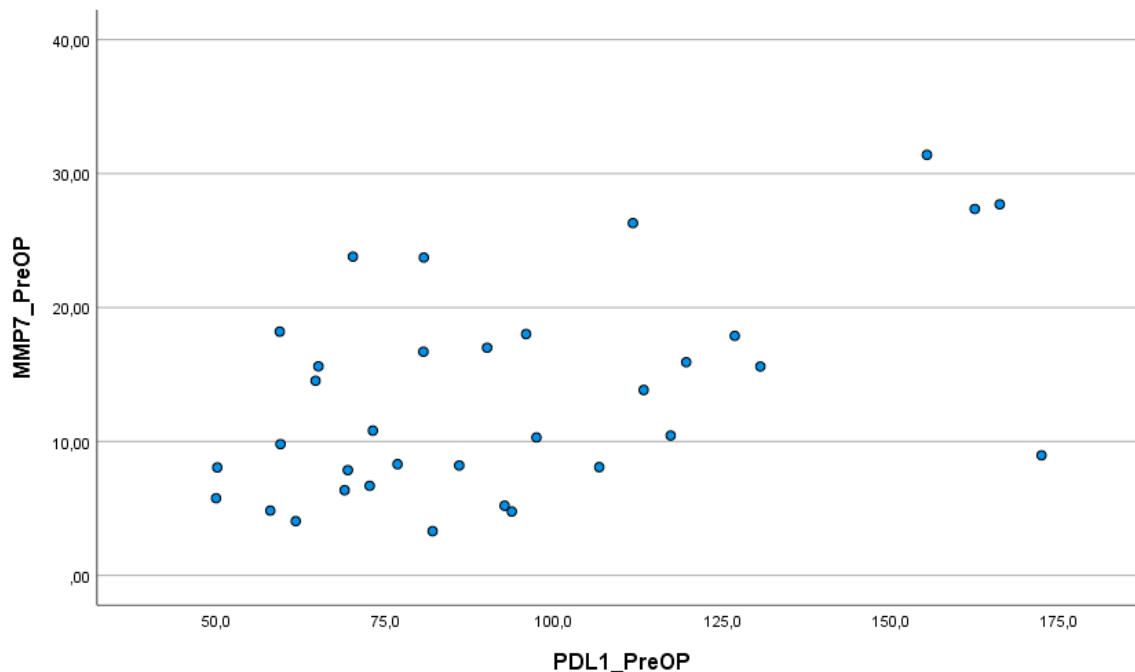


Figure S1. Spearman's rank correlation analysis between preoperative sPD-L1 and MMP-7 levels in the RNU cohort. ($r_s=0.445$, $p=0.008$)

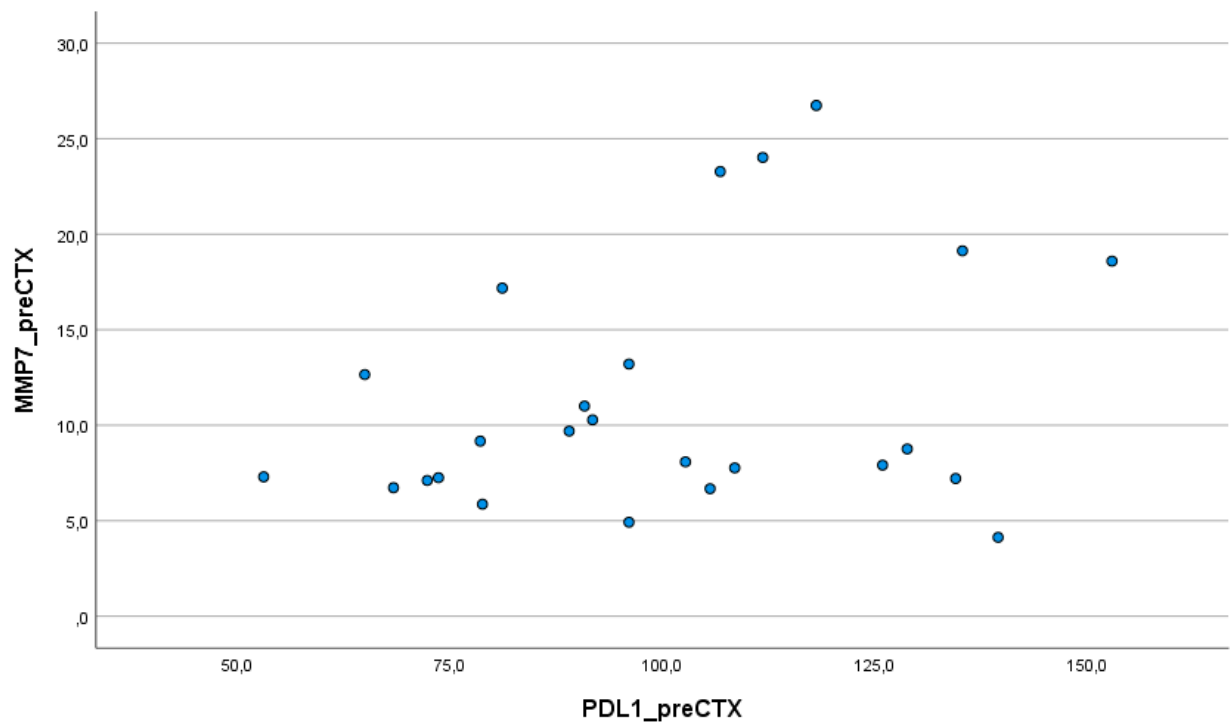


Figure S2. Spearman's rank correlation analysis between pretreatment sPD-L1 and MMP-7 levels in the CTX cohort. ($r_s=0.217$, $p=0.297$)

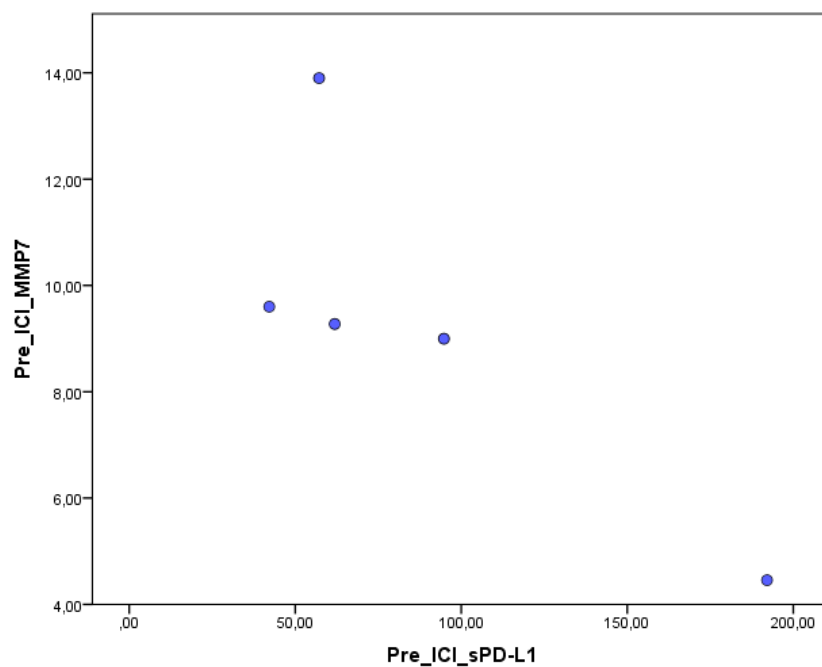


Figure S3. Spearman's rank correlation analysis between pretreatment sPD-L1 and MMP-7 levels in the ICI cohort. ($r_s=0.900$, $p=0.307$)

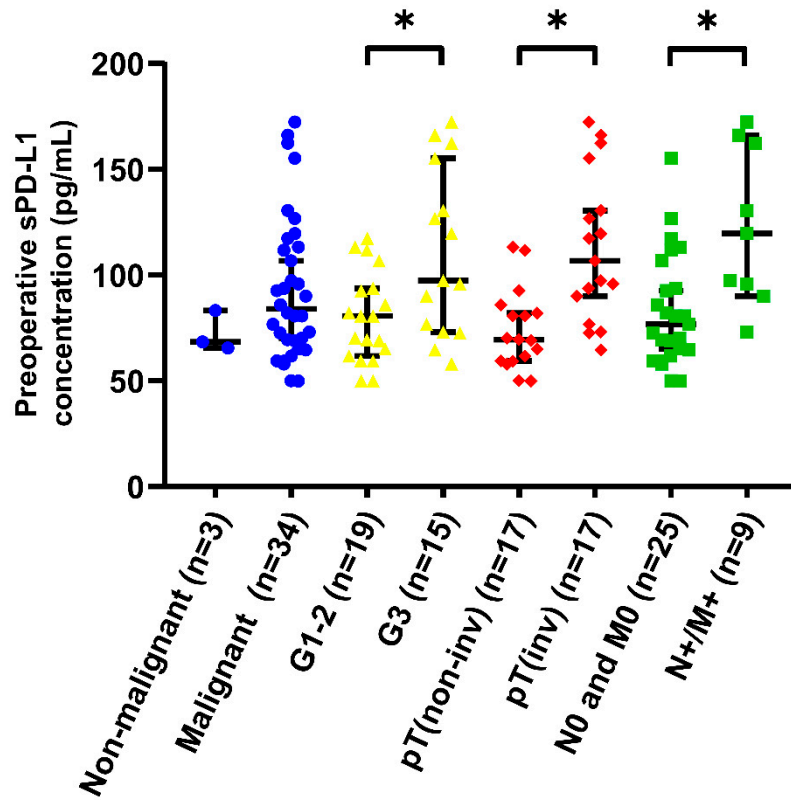


Figure S4. Scatter plot of the association of preoperative sPD-L1 concentration and clinicopathological parameters in the RNU cohort. * significant difference, pT(non-inv): pTa-pT1, pT(inv): pT2-pT4.

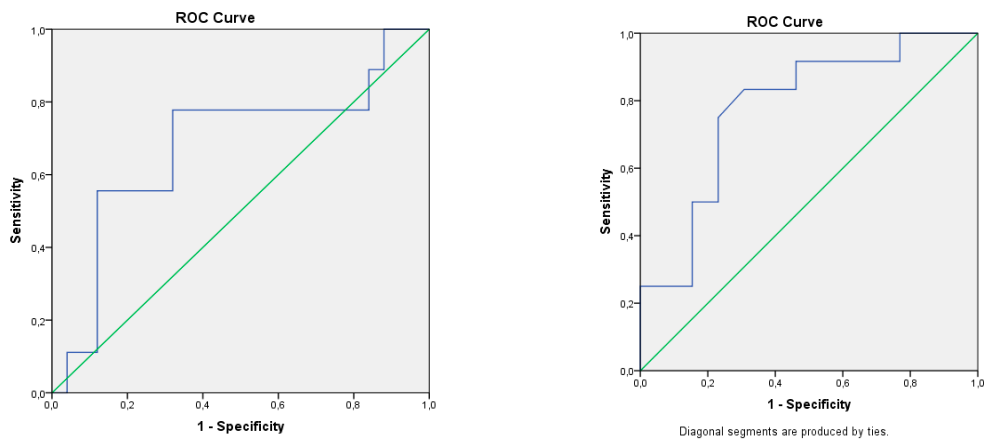


Figure S5. Receiver operating curve (ROC) analysis of the cut-off levels in the RNU and CTX cohorts. RNU cut-off : 118.5 pg/ml (Sensitivity: 0.556, 1-Specificity: 0.120), CTX cut-off: 93.9 pg/ml (Sensitivity: 0.833, 1-Specificity: 0.308),

median cut-off*	17	ref.			ref.			11	ref.			ref.			
median cut-off*	17	4.023	1.060 - 15.269	0.041	2.793	1.011 - 7.716	0.048	14	6.956	1.461 - 33.110	0.015	1.584	0.560 - 4.478	0.386	
ROC cut-off**	27	ref.			ref.			11	ref.			ref.			
ROC cut-off**	7	12.114	2.990 - 49.082	<0.001	6.667	2.140 - 20.764	0.001	14	6.956	1.461 - 33.110	0.015	1.584	0.560 - 4.478	0.386	

Table S1. Correlation of clinicopathological parameters and pretreatment sPD-L1 concentrations with patients' prognosis * - median cut-off value for RNU is 84.0 pg/ml, median cut-off value for CTX is 96.1 pg/ml; ** ROC cut-off value for RNU is 118.5 pg/ml, ROC cut-off value for CTX is 93.9 pg/ml; RNU – radical nephroureterectomy, CTX – chemotherapy; OS – overall survival; PFS – progression-free survival; ECOG PS – Eastern Cooperative Oncology Group performance status, Gem/Cis – gemcitabine + cisplatin; Gem/Carbo – gemcitabine + carboplatin; bold font represents significant value.