

## Supplementary tables

Table SI. Appendix to Fig. 1.									
Target molecule	N wo			U0 vs. UC			U3 vs. UC		
	U0	U3	UC	P-value	D	G	P-value	D	G
G-CSF	25	19	9	0.01	1.18	0.91	0.47 ns	0.31	0.18
GM-CSF	15	14	7	0.02	1.30	0.86	0.003	1.72	0.97
IL-1Ra	28	21	9	<0.0001	2.50	0.99	<0.0001	2.15	0.99
IL-5	10	16	4	0.99 ns	0.01	0.05	0.03	1.55	0.85
IL-6	28	20	9	<0.0001	3.03	1.00	<0.0001	2.25	0.99
IL-15	27	21	9	<0.001	2.07	0.99	0.01	1.23	0.91
CXCL10	28	21	9	0.005	1.21	0.93	0.04	0.91	0.72
CCL2	28	21	9	<0.0001	1.86	0.99	<0.001	1.59	0.99
CCL3	18	16	7	0.04	0.95	0.66	0.01	1.38	0.90
CCL4	27	20	8	0.002	1.26	0.92	0.01	1.17	0.86
VEGF	23	18	9	0.83	0.08	0.07	0.02	1.13	0.85
PDGF-BB	23	18	5	0.01	1.57	0.93	0.007	1.76	0.96

G, statistical power; D, effect size according to Cohen (D<0.2, very small effect; D≥0.2<0.5, small effect; D≥0.5<0.8, medium effect; D≥0.8, large effect); N wo, number of samples without gross outliers; U0, preoperative urine; U3, postoperative day 3 urine; UC,

control urine; G-CSF, granulocyte colony stimulating factor; GM-CSF, granulocyte-macrophage colony stimulating factor; IL-1Ra, IL-1 receptor antagonist; CXCL, C-X-C motif ligand; CCL, chemokine (C-C motif) ligand; VEGF, vascular endothelial growth factor; PDGF-BB, platelet-derived growth factor-BB.

Table SII. Intraindividual differences in the urinary cytokine profile of patients with ccRCC before and after surgery.									
Target molecule	Mean $\pm$ SD		N wo	Diff. $\pm$ SEM (U3-U0)	95% CI	t (df)	P-value	R <sup>2</sup>	D
	U0	U3							
IL-17	0.11 $\pm$ 1.09	-0.86 $\pm$ 1.17	7	-0.98 $\pm$ 0.26	-1.60 to -0.35	3.82 (6)	0.009	0.71	0.86
PDGF-BB	3.00 $\pm$ 0.52	3.36 $\pm$ 0.40	12	0.36 $\pm$ 0.13	0.08 to 0.63	2.87 (11)	0.015	0.43	0.78

The table shows the results of a comparative analysis between the matched U0 and U3 urine samples from 18 patients with ccRCC. The data used in the analysis were logarithmically transformed. CI, confidence interval; ccRCC, clear cell renal cell carcinoma; D, effect size according to Cohen (D<0.2, very small effect; D $\geq$ 0.2<0.5, small effect; D $\geq$ 0.5<0.8, medium effect; D $\geq$ 0.8, large effect); df, degrees of freedom; Diff., difference between the means; N wo, number of pairs without gross outliers; SD, standard deviation; SEM, standard error of mean; t, a ratio of the difference between the groups and the difference within the groups; U3, postoperative day 3 urine; U0, preoperative urine; PDGF-BB, platelet-derived growth factor-BB.

Table SIII. Changes in the urinary cytokine profile of patients with ccRCC months after surgery.										
	UM		UC							
Target molecule	N wo	Mean ± SD	N wo	Mean ± SD	Diff. ± SEM (UC-UM)	95% CI	t (df)	P	R <sup>2</sup>	D
CCL2	5	3.92±1.43	9	2.45±0.86	-1.46±0.60	-2.78 to -0.15	2.42 (12)	0.03	0.33	1.25

The table shows the results of an unpaired t-test performed on the UM and UC samples. The data used in the analysis were logarithmically transformed. CI, confidence interval; ccRCC, clear cell renal cell carcinoma; D, effect size according to Cohen (D<0.2, very small effect; D≥0.2<0.5, small effect; D≥0.5<0.8, medium effect; D≥0.8, large effect); df, degrees of freedom; Diff., difference between the means; N wo, number of pairs without gross outliers; SD, standard deviation; SEM, standard error of mean; t, a ratio of the difference between the groups and the difference within the groups; UC, control urine; UM, urine from patients with ccRCC collected on average 10 months after the removal of tumor.

Table SIV. Appendix to Fig. 4.					
Target molecule	N wo		P-value	D	G
	Patients	Controls			
IL-6	10	6	0.03	1.38	0.82
CCL2	11	7	0.04	0.97	0.61

G, statistical power; D, effect size according to Cohen ( $D < 0.2$ , very small effect;  $D \geq 0.2 < 0.5$ , small effect;  $D \geq 0.5 < 0.8$ , medium effect;  $D \geq 0.8$ , large effect); N wo, number of samples without gross outliers; CCL, chemokine (C-C motif) ligand.

Table SV. Correlation between plasma and presurgical urine samples from patients with clear cell renal cell carcinoma.

Target molecule	N wo	r	95% CI	P-value	R <sup>2</sup>	Signif.
bFGF	4	0.93	-0.33 to 1.00	0.08	0.86	ns
G-CSF	9	0.06	-0.63 to 0.69	0.09	0.003	ns
GM-CSF	NA	NA	NA	NA	NA	NA
IFN $\gamma$	8	-0.01	-0.71 to 0.70	0.98	1.3x10 <sup>-4</sup>	ns
IL-1 $\beta$	NA	NA	NA	NA	NA	NA
IL-1Ra	6	-0.66	-0.96 to 0.33	0.15	0.44	ns
IL-2	NA	NA	NA	NA	NA	NA
IL-4	11	-0.27	-0.75 to 0.40	0.43	0.07	ns
IL-5	NA	NA	NA	NA	NA	NA
IL-6	7	0.47	-0.44 to 0.90	0.28	0.22	ns
IL-7	6	0.48	-0.55 to 0.93	0.34	0.23	ns
IL-8	NA	NA	NA	NA	NA	NA
IL-9	10	0.29	-0.41 to 0.78	0.41	0.09	ns
IL-10	4	0.73	-0.78 to 0.99	0.27	0.53	ns
IL-12	NA	NA	NA	NA	NA	NA
IL-13	7	0.02	-0.75 to 0.76	0.97	3.3x10 <sup>-4</sup>	ns
IL-15	NA	NA	NA	NA	NA	NA

IL-17	NA	NA	NA	NA	NA	NA
CXCL10	9	-0.01	-0.67 to 0.66	0.98	1.3x10 <sup>-4</sup>	ns
CCL2	11	-0.27	-0.75 to 0.39	0.42	0.07	ns
CCL3	4	0.61	-0.85 to 0.99	0.39	0.37	ns
CCL4	10	-0.03	-0.65 to 0.61	0.93	8.9x10 <sup>-4</sup>	ns
CCL5	10	-0.34	-0.80 to 0.37	0.34	0.12	ns
TNF $\alpha$	10	0.15	-0.53 to 0.71	0.69	0.02	ns
VEGF	NA	NA	NA	NA	NA	NA
CCL11	11	-0.46	-0.83 to 0.19	0.15	0.22	ns
PDGF-BB	NA	NA	NA	NA	NA	NA

Correlation between the matched preoperative plasma and urine samples from 11 patients with clear cell renal cell carcinoma. The mean concentrations of cytokines (in pg/ml) are expressed on a logarithmic scale. CI, confidence interval; N wo, number of samples without gross outliers; NA, not analyzed; ns, not significant; Signif, significance of the finding; bFGF, basic fibroblast growth factor; G-CSF, granulocyte colony stimulating factor; GM-CSF, granulocyte-macrophage colony stimulating factor; IL-1Ra, IL-1 receptor antagonist; CXCL, C-X-C motif ligand; CCL, chemokine (C-C motif) ligand; VEGF, vascular endothelial growth factor; PDGF-BB, platelet-derived growth factor-BB.

Table SVI. Differences in plasma cytokines according to sex of the patients.

Target molecule	Mean, pg/ml		Diff. $\pm$ SEM	t (df)	P-value	Signif.
	F	M				
bFGF	3.86	3.09	0.77 $\pm$ 0.90	0.85 (9)	0.42	ns
G-CSF	15.4	11.9	3.51 $\pm$ 6.11	0.58 (10)	0.58	ns
GM-CSF	NA	NA	NA	NA	NA	NA
IFN- $\gamma$	0.61	1.11	-0.50 $\pm$ 0.47	1.07 (8)	0.32	ns
IL-1 $\beta$	0.61	1.11	-0.50 $\pm$ 0.47	1.07 (8)	0.32	ns
IL-1Ra	56.3	106	-49.50 $\pm$ 26	1.90 (7)	0.10	ns
IL-2	NA	NA	NA	NA	NA	NA
IL-4	0.84	1.03	-0.19 $\pm$ 0.22	0.86 (12)	0.41	ns
IL-5	NA	NA	NA	NA	NA	NA
IL-6	7.65	7.24	0.42 $\pm$ 4.82	0.09 (8)	0.93	ns
IL-7	3.9	4.38	-0.47 $\pm$ 1.43	0.33 (12)	0.75	ns
IL-8	NA	NA	NA	NA	NA	NA
IL-9	46.8	40.7	6.14 $\pm$ 12.50	0.49 (12)	0.63	ns
IL-10	NA	NA	NA	NA	NA	NA
IL-12p70	NA	NA	NA	NA	NA	NA
IL-13	0.79	0.94	-0.15 $\pm$ 0.30	0.51 (12)	0.62	ns



IL-15	NA	NA	NA	NA	NA	NA
IL-17	NA	NA	NA	NA	NA	NA
CXCL10	77.1	87.1	-9.99±10.1	0.99 (11)	0.35	ns
CCL2	2.47	2.68	-0.21±0.42	0.49 (9)	0.64	ns
CCL3	0.45	0.513	-0.07±0.19	0.35 (12)	0.73	ns
CCL4	22.6	23	-0.42±5.25	0.08 (12)	0.94	ns
CCL5	110	172	-62.5±43.20	1.45 (12)	0.17	ns
TNF $\alpha$	5.74	5.18	0.56±1.99	0.28 (12)	0.78	ns
VEGF	NA	NA	NA	NA	NA	NA
CCL11	11.4	14.7	-3.30±3.60	0.92 (12)	0.38	ns
PDGF-BB	NA	NA	NA	NA	NA	NA

Diff., difference; df, degrees of freedom; NA, not analyzed; ns, not significant; P, P-value; SEM, standard error of mean; Signif, significance of the finding; t, a ratio of the difference between the groups and the difference within the groups; bFGF, basic fibroblast growth factor; G-CSF, granulocyte colony stimulating factor; GM-CSF, granulocyte-macrophage colony stimulating factor; IL-1Ra, IL-1 receptor antagonist; CXCL, C-X-C motif ligand; CCL, chemokine (C-C motif) ligand; VEGF, vascular endothelial growth factor; PDGF-BB, platelet-derived growth factor-BB.