

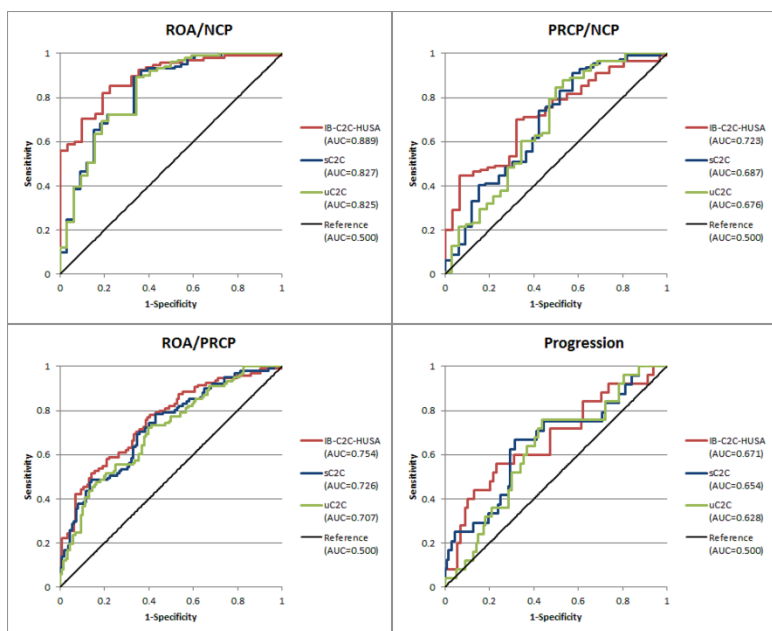
Supplementary Table 1. Baseline descriptive data on biomarkers in cross-sectional and longitudinal cohorts.

Cross-sectional cohort	Whole sample (Weighted N=252.5) Mean (SD); 25 th , median, 75 th	NCP (Weighted N=34.4) Mean (SD); 25 th , median, 75 th	PRCP (Weighted N=120.1) Mean (SD); 25 th , median, 75 th	ROA (Weighted N=98.0) Mean (SD); 25 th , median, 75 th
IB-C2C-HUSA	450.8 (292.2); 268.1, 383.2, 525.0	276.3 (92.4); 221.6, 240.4, 356.0	394.4 (241.2); 259.5, 338.5, 461.4	588.0 (334.9); 342.0, 478.6, 726.0
sC2C (/100)	248.9 (95.0); 181.9, 235.4, 282.6	245.4 (84.5); 180.3, 227.7, 292.3	233.2 (81.8); 178.1, 230.0, 274.0	268.9 (108.3); 195.5, 242.7, 301.0
uC2C (/10)	361.9 (265.2); 217.0, 320.2, 431.0	335.0 (257.4); 155.3, 281.5, 464.4	349.9 (182.2); 216.5, 334.2, 423.0	386.2 (338.7); 234.0, 321.5, 440.3

Supplementary Table 1 cont.			
Longitudinal cohort	Whole sample (Weighted N=160.5) Mean (SD); 25 th , median, 75 th	Non-progressors (Weighted N=136.1) Mean (SD); 25 th , median, 75 th	Progressors (Weighted N=24.4) Mean (SD); 25 th , median, 75 th
IB-C2C-HUSA	466.1 (277.4); 298.6, 409.1, 528.4	430.9 (215.5); 295.4, 383.5, 523.3	659.8 (446.5); 342.0, 489.5, 941.6
sC2C (/100)	244.7 (84.3); 182.0, 230.9, 281.9	247.9 (84.6); 189.3, 232.6, 286.5	226.5 (81.8); 167.6, 228.0, 271.3
uC2C (/10)	377.0 (306.0); 227.8, 333.3, 429.1	386.1 (327.1); 230.9, 337.8, 439.0	325.4 (144.8); 216.5, 303.4, 407.2

“/100” and “/10” indicates a change in factor by 100 and 10, respectively, for comparability of the scale of the numbers. Units are pg/ml for serum C2C and ng/mmol creatinine for urine C2C and urine IB-C2C-HUSA. NCP: no cartilage pathology; PRCP: preradiographic cartilage pathology; ROA: radiographic osteoarthritis; IB-C2C-HUSA: human urine sandwich assay; sC2C: serum C2C; uC2C: urine C2C.

Supplementary Figure 1.



Receiver-operating characteristic curves for prediction of ROA vs NCP, PRCP vs NCP, ROA vs PRCP and progression for urine IB-C2C-HUSA, serum C2C, and urine C2C. NCP: no cartilage pathology; PRCP: preradiographic cartilage pathology; ROA: radiographic osteoarthritis; AUC: area under the curve; IB-C2C-HUSA: human urine sandwich assay.

Supplementary Table 2. Pearson correlation coefficients of biomarkers for the whole cohort and subgroups.

		sC2C		uC2C	
		Pearson correlation coefficient	p-value	Pearson correlation coefficient	p-value
Whole cohort					
	IB-C2C-HUSA	0.123	0.059	0.052	0.418
	sC2C	-	-	-0.018	0.776
NCP					
	IB-C2C-HUSA	0.320	0.079	0.160	0.391
	sC2C	-	-	-0.191	0.294
PRCP					
	IB-C2C-HUSA	0.134	0.164	0.091	0.334
	sC2C	-	-	0.058	0.543

Online supplement to: Ability of a Urine Assay of Type II Collagen Cleavage by Collagenases to Detect Early Onset and Progression of Articular Cartilage Degeneration: Results from a Population-based Cohort Study, *The Journal of Rheumatology*; doi:10.3899/jrheum.150917

Supplementary Table 2 cont.					
ROA					
	IB-C2C-HUSA	0.019	0.858	-0.003	0.974
	sC2C	-	-	-0.044	0.669
Nonprogressor					
	IB-C2C-HUSA	0.165	0.063	0.034	0.700
	sC2C	-	-	-0.070	0.426
Progressors					
	IB-C2C-HUSA	0.112	0.611	-0.121	0.563
	sC2C	-	-	-0.418	0.047

NCP: no cartilage pathology; PRCP: preradiographic cartilage pathology; ROA: radiographic osteoarthritis; IB-C2C-HUSA: human urine sandwich assay; sC2C: serum C2C.