

Appendix Table A1. Pearson correlation coefficients among the biomarkers. Box-Cox transformed data were used.

	IL-1ra	IL-1a	IFN- $\gamma$	IL-10	IL-6	IL-8	TNF- $\alpha$	NTX	CTXII	COMP	sGAG	MMP-1	MMP-3	MMP-9	CPII
IL-1a	.29														
IFN- $\gamma$	.13	.20													
IL-10	.01	.14	.42*												
IL-6	.22	.06	.33	.46*											
IL-8	.18	.03	.15	.48*	.53**										
TNF- $\alpha$	.17	.03	.43*	.76**	.61**	.71**									
NTX	.04	.13	.19	-.19	-.22	.07	-.16								
CTXII	.14	.05	-.22	-.06	-.20	-.04	-.03	.17							
COMP	.05	.21	-.25	-.12	-.29	.18	-.03	.44*	.54**						
sGAG	.28	-.10	-.35	-.31	-.27	-.18	-.32	.15	.44*	.36					
MMP-1	-.23	.07	.01	.45*	.50**	.58**	.43*	-.13	0.0	.07	-.32				
MMP-3	-.12	.07	.19	.54**	.49*	.68**	.56**	.06	.12	.22	-.41*	.87**			
MMP-9	-.11	.16	.11	.01	.06	.01	-.08	.12	-.22	.07	-.19	.20	.25		
CPII	-.24	-.16	-.15	-.20	-.02	.05	-.01	-.20	.15	.03	.07	.30	.04	-.34	
B + B	-.20	.25	.28	.28	-.12	.14	.28	-.04	-.10	-.03	0.0	.03	.04	.26	.02

\* p < 0.05; \*\* p < 0.01. B+B = bilirubin + biliverdin. Light yellow=weak correlation (R  $\leq$  0.5); orange=moderate correlation (0.5 < R  $\leq$  0.8); red=strong correlation (R > 0.8).

Appendix Table A2. Mean and standard deviation of T1 $\rho$  and T2 relaxation times at each time point. All units are measured in milliseconds.

A. T1 $\rho$	MF	LF	MT	LT	P	TrF
BL (n=26)	39.0 $\pm$ 2.9	39.2 $\pm$ 2.8	35.7 $\pm$ 3.0	34.6 $\pm$ 3.0	39.0 $\pm$ 3.7	40.4 $\pm$ 2.9
6M (n=23)	42.0 $\pm$ 2.7	40.7 $\pm$ 2.9	36.3 $\pm$ 3.2	34.5 $\pm$ 3.6	39.0 $\pm$ 3.2	41.6 $\pm$ 2.8
1Y (n=21)	41.8 $\pm$ 2.5	40.8 $\pm$ 3.2	36.7 $\pm$ 4.1	34.5 $\pm$ 2.6	38.9 $\pm$ 3.7	42.0 $\pm$ 3.3
2Y (n=19)	41.8 $\pm$ 1.9	40.4 $\pm$ 2.4	36.9 $\pm$ 3.2	34.7 $\pm$ 3.5	39.4 $\pm$ 2.6	42.4 $\pm$ 3.4
3Y (n=18)	42.2 $\pm$ 2.5	40.9 $\pm$ 3.0	36.5 $\pm$ 2.8	34.8 $\pm$ 4.1	40.0 $\pm$ 3.8	43.1 $\pm$ 4.2

B. T2	MF	LF	MT	LT	P	TrF
BL (n=26)	30.3 $\pm$ 2.4	30.0 $\pm$ 2.8	27.1 $\pm$ 2.7	25.5 $\pm$ 2.6	28.6 $\pm$ 3.1	31.4 $\pm$ 2.7
6M (n=23)	30.8 $\pm$ 2.5	30.8 $\pm$ 2.5	28.0 $\pm$ 2.5	25.1 $\pm$ 1.8	28.5 $\pm$ 2.2	32.3 $\pm$ 2.8
1Y (n=21)	32.5 $\pm$ 3.1	31.1 $\pm$ 3.0	28.1 $\pm$ 2.9	25.0 $\pm$ 2.7	28.3 $\pm$ 3.3	32.9 $\pm$ 3.2
2Y (n=19)	33.2 $\pm$ 2.1	31.3 $\pm$ 2.7	27.9 $\pm$ 2.6	26.1 $\pm$ 2.7	29.4 $\pm$ 3.9	34.0 $\pm$ 3.6
3Y (n=18)	33.0 $\pm$ 2.1	31.1 $\pm$ 2.2	27.9 $\pm$ 3.0	25.8 $\pm$ 2.4	28.7 $\pm$ 2.9	34.2 $\pm$ 2.8

MF=medial femur, LF=lateral femur, MT=medial tibia, LT=lateral tibia, P=patella, TrF=trochlea