

SUPPLEMENTARY TABLE S4. TRABECULAR VOLUME OF INTEREST DATA SET FOR BONE MICROCOMPUTED TOMOGRAPHY MEASUREMENTS AND CARTILAGE HISTOLOGICAL SCORES

Group	Time point (weeks)	BMD ( $g/cm^3$ )	BV/TV (%)	i.S. ( $mm^2$ )	BS/BV ( $mm^{-1}$ )	Tb.Th ( $\mu m$ )	Tb.N ( $mm^{-1}$ )	Tb.Sp ( $\mu m$ )	Obj.N	Cartilage morphology	Cartilage thickness	Cartilage regularity	Chondrocytes clustering	Neocartilage cell and GAG	Adjacent cell and GAG
IGF-1	6	0.07	12.48	12.21	31.74	113.53	1.10	1638.18	94	1.33	1.33	0.00	1.00	2.00	2.00
IGF-1	6	0.31	31.50	14.52	35.01	126.03	2.50	294.05	838	3.00	2.33	2.00	1.67	3.00	2.67
IGF-1	6	0.33	39.74	14.56	31.19	113.49	3.50	250.68	236	2.67	2.00	1.33	2.33	2.33	3.00
IGF-1	6	0.29	34.11	15.20	33.12	106.36	3.21	508.64	278	3.00	1.33	2.00	1.33	3.00	3.00
IGF-1	6	0.26	27.69	17.82	29.73	158.19	1.75	771.92	490	1.50	2.50	2.00	1.50	1.00	2.00
IGF-1	6	0.24	26.17	18.45	35.51	112.99	2.32	701.80	717	2.00	2.00	1.50	2.00	1.50	1.50
IGF-1	6	0.23	26.28	14.50	31.36	118.44	2.22	1074.95	129	1.33	2.33	2.00	2.00	1.00	3.00
IGF-1	6	-0.01	4.73	5.14	51.12	93.19	0.51	1362.89	374	2.00	2.00	1.33	1.33	2.33	3.00
IGF-1	6	0.06	12.43	11.06	39.44	102.14	1.22	1423.30	312	1.00	1.33	0.00	1.67	1.00	2.00
IGF-1	6	0.02	7.22	8.07	31.23	135.92	0.53	1189.79	127	3.00	2.00	0.00	1.67	3.00	2.00
IGF-1	6	0.35	37.36	14.10	39.03	96.40	3.88	205.77	349	3.00	2.00	2.00	2.00	3.00	3.00
IGF-1	6	0.38	42.30	18.28	27.76	129.36	3.27	267.30	370	2.67	2.00	1.33	2.00	2.33	2.00
IGF-1	6	0.08	10.31	7.78	53.57	92.31	1.12	839.17	1183	1.67	2.33	0.33	2.00	2.67	2.67
Both	6	0.11	15.03	9.25	40.68	104.33	1.44	687.30	487	2.00	2.00	1.50	2.50	2.00	2.00
Both	6	0.22	24.16	14.12	35.37	110.29	2.19	560.07	580	2.00	2.00	0.67	2.00	2.67	3.00
Both	6	0.16	18.89	11.17	48.21	84.27	2.24	692.98	890	2.67	2.00	1.33	1.67	2.67	3.00
Both	6	0.14	18.76	11.19	36.99	112.75	1.66	1007.67	252	1.33	1.67	1.67	1.67	1.00	1.33
Both	6	0.21	25.48	15.57	29.88	142.13	1.79	757.71	298	2.00	1.67	2.00	1.67	2.00	2.00
Both	6	0.15	18.88	12.02	34.84	130.82	1.44	757.12	740	1.67	2.00	0.00	2.00	1.00	2.00
Both	6	0.30	33.55	16.38	30.03	150.46	2.23	357.36	966	2.00	2.00	1.33	2.33	2.33	2.67
Both	6	0.22	29.01	15.47	30.31	141.39	2.05	560.17	435	2.33	2.00	2.00	1.67	1.67	2.00
Both	6	0.31	33.99	19.12	34.64	122.68	2.77	344.80	467	2.33	2.00	2.00	2.33	2.33	2.33
Both	6	0.17	16.37	11.71	44.38	104.24	1.57	689.76	937	2.67	1.67	1.33	1.33	3.00	3.00
Both	6	0.38	40.42	18.66	36.48	106.39	3.80	201.85	675	2.00	2.00	2.00	1.33	2.00	2.00
BMP-2	6	0.14	13.90	10.30	57.74	79.21	1.75	821.30	1468	2.00	2.00	1.00	2.33	2.33	2.33
BMP-2	6	0.16	15.48	9.56	43.22	120.09	1.29	777.96	1120	1.00	1.00	0.67	2.33	0.33	1.00
BMP-2	6	0.08	11.72	8.26	39.63	126.10	0.93	938.11	1179	1.67	1.67	0.67	1.67	1.67	2.33
BMP-2	6	0.19	16.87	10.48	56.88	78.97	2.14	444.20	1529	2.50	2.00	2.00	1.50	2.00	1.00
BMP-2	6	0.32	31.38	16.03	38.02	106.60	2.94	314.78	828	3.00	2.00	3.00	2.00	3.00	3.00
BMP-2	6	0.33	34.62	17.05	34.11	113.61	3.05	419.97	557	3.00	2.00	2.33	1.33	3.00	3.00
BMP-2	6	0.18	22.68	9.09	40.26	98.21	2.31	514.65	405	2.67	1.67	1.00	1.33	2.33	2.00
BMP-2	6	0.28	31.51	15.31	36.73	104.03	3.03	458.46	567	2.67	2.00	2.00	1.33	2.67	1.33
BMP-2	6	0.24	27.88	13.97	33.23	126.27	2.21	403.50	489	2.00	2.00	2.00	2.00	2.00	2.33
BMP-2	6	0.31	30.93	15.01	36.19	114.80	2.69	291.11	674	3.00	2.00	2.67	2.33	3.00	2.67
IGF-1	12	0.34	40.05	16.25	26.35	139.34	2.87	426.26	466	3.00	1.33	1.33	1.67	2.67	2.67
IGF-1	12	0.36	46.10	15.17	25.29	124.55	3.70	267.88	130	1.33	1.00	1.00	1.67	1.33	2.33
IGF-1	12	0.24	33.27	10.44	50.05	81.88	2.84	282.50	958	1.00	1.67	0.67	2.00	2.00	2.33
IGF-1	12	0.24	29.50	11.14	32.76	106.60	2.77	335.82	150	1.67	1.67	1.67	1.67	2.00	3.00
IGF-1	12	0.23	26.05	12.50	42.66	93.84	2.78	682.41	664	1.67	2.00	1.00	2.00	2.00	2.67
IGF-1	12	0.27	33.84	14.87	25.28	138.80	2.44	661.39	228	2.33	2.33	2.00	1.67	2.00	3.00
IGF-1	12	0.32	40.71	18.44	27.85	122.83	3.31	373.76	258	1.00	1.67	2.00	2.33	1.33	3.00

(continued)

SUPPLEMENTARY TABLE S4. (CONTINUED)

Group	Time point (weeks)	BMD ( $g/cm^3$ )	BV/TV (%)	i.S. ( $mm^2$ )	BS/BV ( $mm^{-1}$ )	Tb.Th ( $\mu m$ )	Tb.N ( $mm^{-1}$ )	Tb.Sp ( $\mu m$ )	Obj.N	Cartilage morphology	Cartilage thickness	Cartilage regularity	Chondrocytes clustering	Neocartilage cell and GAG	Adjacent cell and GAG
IGF-1	12	0.34	44.60	21.20	18.31	169.11	2.64	625.09	83	2.67	1.00	2.33	1.67	1.67	3.00
IGF-1	12	0.22	31.66	15.13	17.29	239.75	1.32	978.69	97	1.00	2.33	1.33	1.67	1.33	3.00
IGF-1	12	0.45	53.71	19.75	21.12	160.27	3.35	250.16	175	3.00	2.33	2.33	2.00	3.00	3.00
IGF-1	12	0.37	41.47	18.71	29.37	115.85	3.58	586.02	439	2.67	2.33	2.33	2.00	2.00	3.00
IGF-1	12	0.44	53.83	17.63	14.95	198.16	2.72	328.29	40	2.00	2.33	3.00	1.67	1.33	2.67
BMP-2	12	0.42	51.97	21.68	22.86	137.91	3.77	320.69	154	1.67	1.00	0.67	1.67	0.67	2.67
BMP-2	12	0.32	40.57	24.06	19.58	168.50	2.41	644.28	282	2.00	2.00	2.00	1.67	1.67	2.67
BMP-2	12	0.37	41.63	16.22	33.69	108.70	3.83	201.96	366	1.67	1.67	1.67	2.00	1.33	3.00
BMP-2	12	0.45	52.93	20.17	24.69	133.03	3.98	214.95	255	2.67	1.33	1.67	1.67	1.33	3.00
BMP-2	12	0.33	38.85	17.29	26.50	150.50	2.58	275.42	339	3.00	2.00	1.00	2.00	2.00	2.00
BMP-2	12	0.25	32.55	13.46	26.04	161.17	2.02	342.23	235	3.33	1.00	2.00	1.33	2.67	3.00
BMP-2	12	0.40	48.98	19.83	25.45	130.54	3.75	332.81	289	2.33	1.67	2.00	1.67	2.00	3.00
BMP-2	12	0.44	52.87	22.19	20.58	166.82	3.17	275.41	260	1.67	2.00	1.33	2.00	0.67	2.33
BMP-2	12	0.35	39.92	19.89	25.02	152.53	2.62	576.61	335	1.00	2.00	2.50	2.00	2.50	2.00
BMP-2	12	0.48	57.49	20.37	24.41	144.96	3.97	163.40	291	2.00	2.00	2.00	1.67	1.67	2.00
BMP-2	12	0.31	40.42	13.10	20.72	154.46	2.62	335.61	53	2.33	1.00	0.00	1.00	1.33	2.00
BMP-2	12	0.28	34.58	14.47	18.78	174.99	1.98	456.56	17	2.67	1.67	1.33	1.33	2.00	3.00
Both	12	0.32	40.45	18.34	20.44	157.40	2.57	789.97	51	1.67	1.00	2.00	2.00	1.33	2.00
Both	12	0.40	51.60	26.47	15.13	185.04	2.79	983.87	41	2.33	1.00	1.67	1.67	1.00	2.00
Both	12	0.26	27.83	14.69	38.12	102.06	2.73	669.33	569	1.33	1.33	0.00	2.33	1.33	3.00
Both	12	0.26	29.62	14.56	19.14	189.39	1.56	642.16	69	2.00	1.00	0.50	1.00	2.00	3.00
Both	12	0.55	62.16	21.98	13.18	228.32	2.72	323.47	40	2.50	2.00	3.00	1.50	1.50	3.00
Both	12	0.42	49.44	20.01	27.73	122.35	4.04	261.51	449	3.33	2.00	2.33	2.67	2.67	3.00
Both	12	0.24	31.76	16.79	16.69	189.11	1.68	924.95	44	2.33	2.67	0.67	1.67	1.67	2.00
Both	12	0.24	30.77	12.68	13.82	220.24	1.40	889.62	36	1.67	1.00	1.33	2.33	0.67	2.67
Both	12	0.28	34.94	19.34	23.83	153.45	2.28	626.53	397	2.67	1.67	2.00	2.33	1.67	2.67
Both	12	0.37	39.30	20.54	16.05	218.07	1.80	840.10	120	3.33	2.33	2.00	2.33	2.33	2.33
Both	12	0.50	51.22	21.60	12.70	266.33	1.92	472.01	29	3.67	2.33	3.00	1.67	2.67	3.00
Both	12	0.36	39.07	20.54	25.36	142.32	2.74	721.20	327	1.67	1.33	2.67	2.00	1.67	2.67