Frank Beier

List of Publications by Year in Descending Order

134 papers	5,359 citations	44 h-index	67 g-index
180 ext. papers	6,035 ext. citations	5.6 avg, IF	5.81 L-index

#	Paper	IF	Citations
134	Expansion of myeloid-derived suppressor cells contributes to metabolic osteoarthritis through subchondral bone remodeling. *Arthritis Research and Therapy*, **2021**, 23, 287	5.7	0
133	Diet-induced obesity leads to behavioral indicators of pain preceding structural joint damage in wild-type mice. *Arthritis Research and Therapy*, **2021**, 23, 93	5.7	0
132	Polymer particles for the intra-articular delivery of drugs to treat osteoarthritis. *Biomedical Materials (Bristol)*, **2021**,	3.5	2
131	Keep your Sox on, chondrocytes!. *Nature Reviews Rheumatology*, **2021**, 17, 383-384	8.1	
130	The Role of Panx3 in Age-Associated and Injury-Induced Intervertebral Disc Degeneration. *International Journal of Molecular Sciences*, **2021**, 22,	6.3	3
129	Glycogen synthase kinase 3 alpha/beta deletion induces precocious growth plate remodeling in mice. *Journal of Molecular Medicine*, **2021**, 99, 831-844	5.5	4
128	Genetic Deletion of Interleukin-15 Is Not Associated with Major Structural Changes Following Experimental Post-Traumatic Knee Osteoarthritis in Rats. *Applied Sciences (Switzerland)*, **2021**, 11, 7118	2.6	
127	Targeting cartilage EGFR pathway for osteoarthritis treatment. *Science Translational Medicine*, **2021** , 13,	17.5	15
126	A Na/K ATPase Pump Regulates Chondrocyte Differentiation and Bone Length Variation in Mice.. *Frontiers in Cell and Developmental Biology*, **2021**, 9, 708384	5.7	
125	Overexpression of MIG-6 in the cartilage induces an osteoarthritis-like phenotype in mice. *Arthritis Research and Therapy*, **2020**, 22, 119	5.7	1
124	Liver X Receptor activation regulates genes involved in lipid homeostasis in developing chondrocytes. *Osteoarthritis and Cartilage Open*, **2020**, 2, 100030	1.5	0
123	Interplay between genetics and epigenetics in osteoarthritis. *Nature Reviews Rheumatology*, **2020**, 16, 268-281	8.1	38
122	Quantification of joint blood flow by dynamic contrast-enhanced near-infrared spectroscopy: application to monitoring disease activity in a rat model of rheumatoid arthritis. *Journal of Biomedical Optics*, **2020**, 25, 1-10	3.5	1
121	GSK3787-Loaded Poly(Ester Amide) Particles for Intra-Articular Drug Delivery. *Polymers*, **2020**, 12,	4.5	4
120	Poly(ester amide) particles for controlled delivery of celecoxib. *Journal of Biomedical Materials Research - Part A*, **2019**, 107, 1235-1243	5.4	13
119	ECM signaling in cartilage development and endochondral ossification. *Current Topics in Developmental Biology*, **2019**, 133, 25-47	5.3	18
118	Cholesterol and cartilage do not mix well. *Nature Reviews Rheumatology*, **2019**, 15, 253-254	8.1	0

117	EGFR Signaling: Friend or Foe for Cartilage?. *JBMR Plus*, **2019**, 3, e10177	3.9	16
116	Thermoresponsive and Covalently Cross-Linkable Hydrogels for Intra-Articular Drug Delivery.. *ACS Applied Bio Materials*, **2019**, 2, 3498-3507	4.1	9
115	Exposure to the RXR Agonist SR11237 in Early Life Causes Disturbed Skeletal Morphogenesis in a Rat Model. *International Journal of Molecular Sciences*, **2019**, 20,	6.3	5
114	Quantifying joint blood flow in a rat model of rheumatoid arthritis with dynamic contrast-enhanced near-infrared spectroscopy **2019**,		1
113	Nuclear receptors as potential drug targets in osteoarthritis. *Current Opinion in Pharmacology*, **2018** , 40, 81-86	5.1	7
112	Early Changes of Articular Cartilage and Subchondral Bone in The DMM Mouse Model of Osteoarthritis. *Scientific Reports*, **2018**, 8, 2855	4.9	76
111	Dicam promotes proliferation and maturation of chondrocyte through Indian hedgehog signaling in primary cilia. *Osteoarthritis and Cartilage*, **2018**, 26, 945-953	6.2	7
110	Inactivation of hepatic ATRX in Foxg1cre mice prevents reversal of aging-like phenotypes by thyroxine. *Aging*, **2018**, 10, 1223-1238	5.6	
109	The first international workshop on the epigenetics of osteoarthritis. *Connective Tissue Research*, **2017**, 58, 37-48	3.3	5
108	Mosaic expression of Atrx in the mouse central nervous system causes memory deficits. *DMM Disease Models and Mechanisms*, **2017**, 10, 119-126	4.1	9
107	Nuclear receptors regulate lipid metabolism and oxidative stress markers in chondrocytes. *Journal of Molecular Medicine*, **2017**, 95, 431-444	5.5	20
106	Recent developments in emerging therapeutic targets of osteoarthritis. *Current Opinion in Rheumatology*, **2017**, 29, 96-102	5.3	49
105	Rac1 Dosage Is Crucial for Normal Endochondral Bone Growth. *Endocrinology*, **2017**, 158, 3386-3398	4.8	4
104	Global deletion of Panx3 produces multiple phenotypic effects in mouse humeri and femora. *Journal of Anatomy*, **2016**, 228, 746-56	2.9	23
103	The role of bone sialoprotein in the tendon-bone insertion. *Matrix Biology*, **2016**, 52-54, 325-338	11.4	11
102	Context-specific protection of TGF□hull mice from osteoarthritis. *Scientific Reports*, **2016**, 6, 30434	4.9	16
101	Cartilage Differentiation and the Actin Cytoskeleton **2016**, 253-267		
100	Deletion of Panx3 Prevents the Development of Surgically Induced Osteoarthritis. *Journal of Molecular Medicine*, **2015**, 93, 845-56	5.5	32

99	A top-notch dilemma: The complex role of NOTCH signaling in osteoarthritis. *Science Signaling*, **2015**, 8, fs14	8.8	1
98	Elevated expression of periostin in human osteoarthritic cartilage and its potential role in matrix degradation via matrix metalloproteinase-13. *FASEB Journal*, **2015**, 29, 4107-21	0.9	33
97	Novel Insights into Osteoarthritis Joint Pathology from Studies in Mice. *Current Rheumatology Reports*, **2015**, 17, 50	4.9	21
96	Loss of bone sialoprotein leads to impaired endochondral bone development and mineralization. *Bone*, **2015**, 71, 145-54	4.7	36
95	Repeated exposure to high-frequency low-amplitude vibration induces degeneration of murine intervertebral discs and knee joints. *Arthritis and Rheumatology*, **2015**, 67, 2164-75	9.5	40
94	Reduction in disease progression by inhibition of transforming growth factor □CCL2 signaling in experimental posttraumatic osteoarthritis. *Arthritis and Rheumatology*, **2015**, 67, 2691-701	9.5	43
93	Deletion of Dual Specificity Phosphatase 1 Does Not Predispose Mice to Increased Spontaneous Osteoarthritis. *PLoS ONE*, **2015**, 10, e0142822	3.7	6
92	Chondrocyte hypertrophy in skeletal development, growth, and disease. *Birth Defects Research Part C: Embryo Today Reviews*, **2014**, 102, 74-82		82
91	Developmental biology: Is there such a thing as a cartilage-specific knockout mouse?. *Nature Reviews Rheumatology*, **2014**, 10, 702-4	8.1	7
90	Mouse models of osteoarthritis: modelling risk factors and assessing outcomes. *Nature Reviews Rheumatology*, **2014**, 10, 413-21	8.1	113
89	ADAMTS-7 forms a positive feedback loop with TNF-□in the pathogenesis of osteoarthritis. *Annals of the Rheumatic Diseases*, **2014**, 73, 1575-84	2.4	50
88	Choline kinase beta is required for normal endochondral bone formation. *Biochimica Et Biophysica Acta - General Subjects*, **2014**, 1840, 2112-22	4	20
87	Reduced EGFR signaling enhances cartilage destruction in a mouse osteoarthritis model. *Bone Research*, **2014**, 2, 14015	13.3	36
86	F-spondin deficient mice have a high bone mass phenotype. *PLoS ONE*, **2014**, 9, e98388	3.7	17
85	Cartilage-specific deletion of Mig-6 results in osteoarthritis-like disorder with excessive articular chondrocyte proliferation. *Proceedings of the National Academy of Sciences of the United States of America*, **2014**, 111, 2590-5	11.5	37
84	Loss of the mammalian DREAM complex deregulates chondrocyte proliferation. *Molecular and Cellular Biology*, **2014**, 34, 2221-34	4.8	20
83	Osteopontin mediates mineralization and not osteogenic cell development in□vitro. *Biochemical Journal*, **2014**, 464, 355-64	3.8	34
82	Disturbed cartilage and joint homeostasis resulting from a loss of mitogen-inducible gene 6 in a mouse model of joint dysfunction. *Arthritis and Rheumatology*, **2014**, 66, 2816-27	9.5	33

81	TGF-□and osteoarthritis--the good and the bad. *Nature Medicine*, **2013**, 19, 667-9	50.5	41
80	Role of interleukin-10 in endochondral bone formation in mice: anabolic effect via the bone morphogenetic protein/Smad pathway. *Arthritis and Rheumatism*, **2013**, 65, 3153-64		28
79	Adult cartilage-specific peroxisome proliferator-activated receptor gamma knockout mice exhibit the spontaneous osteoarthritis phenotype. *American Journal of Pathology*, **2013**, 182, 1099-106	5.8	51
78	Targeted loss of the ATR-X syndrome protein in the limb mesenchyme of mice causes brachydactyly. *Human Molecular Genetics*, **2013**, 22, 5015-25	5.6	16
77	Loss of ATRX does not confer susceptibility to osteoarthritis. *PLoS ONE*, **2013**, 8, e85526	3.7	4
76	Atrx deficiency induces telomere dysfunction, endocrine defects, and reduced life span. *Journal of Clinical Investigation*, **2013**, 123, 2049-63	15.9	74
75	Transforming growth factor alpha controls the transition from hypertrophic cartilage to bone during endochondral bone growth. *Bone*, **2012**, 51, 131-41	4.7	47
74	Time-series transcriptional profiling yields new perspectives on susceptibility to murine osteoarthritis. *Arthritis and Rheumatism*, **2012**, 64, 3256-66		41
73	An in vivo investigation of the initiation and progression of subchondral cysts in a rodent model of secondary osteoarthritis. *Arthritis Research and Therapy*, **2012**, 14, R26	5.7	51
72	Transforming growth factor-alpha induces endothelin receptor A expression in osteoarthritis. *Journal of Orthopaedic Research*, **2012**, 30, 1391-7	3.8	11
71	Association of cartilage-specific deletion of peroxisome proliferator-activated receptor □with abnormal endochondral ossification and impaired cartilage growth and development in a murine model. *Arthritis and Rheumatism*, **2012**, 64, 1551-61		46
70	Cartilage biology in osteoarthritis--lessons from developmental biology. *Nature Reviews Rheumatology*, **2011**, 7, 654-63	8.1	140
69	Rac1 activation induces tumour necrosis factor-□expression and cardiac dysfunction in endotoxemia. *Journal of Cellular and Molecular Medicine*, **2011**, 15, 1109-21	5.6	13
68	Emerging Frontiers in cartilage and chondrocyte biology. *Best Practice and Research in Clinical Rheumatology*, **2011**, 25, 751-66	5.3	51
67	The critical role of the epidermal growth factor receptor in endochondral ossification. *Journal of Bone and Mineral Research*, **2011**, 26, 2622-33	6.3	72
66	Inducible nitric oxide synthase-nitric oxide signaling mediates the mitogenic activity of Rac1 during endochondral bone growth. *Journal of Cell Science*, **2011**, 124, 3405-13	5.3	23
65	Rho/ROCK and MEK/ERK activation by transforming growth factor-alpha induces articular cartilage degradation. *Laboratory Investigation*, **2010**, 90, 20-30	5.9	87
64	Human stanniocalcin-1 or -2 expressed in mice reduces bone size and severely inhibits cranial intramembranous bone growth. *Transgenic Research*, **2010**, 19, 1017-39	3.3	29

63	PPARgamma2 expression in growth plate chondrocytes is regulated by p38 and GSK-3. *Journal of Cellular and Molecular Medicine*, **2010**, 14, 242-56	5.6	10
62	Biology and pathology of Rho GTPase, PI-3 kinase-Akt, and MAP kinase signaling pathways in chondrocytes. *Journal of Cellular Biochemistry*, **2010**, 110, 573-80	4.7	107
61	Endothelial nitric oxide synthase deficiency in mice results in reduced chondrocyte proliferation and endochondral bone growth. *Arthritis and Rheumatism*, **2010**, 62, 2013-22		23
60	Genome-wide analyses of gene expression during mouse endochondral ossification. *PLoS ONE*, **2010**, 5, e8693	3.7	38
59	Regulation of gene expression by PI3K in mouse growth plate chondrocytes. *PLoS ONE*, **2010**, 5, e8866	3.7	20
58	Loss of ATRX in chondrocytes has minimal effects on skeletal development. *PLoS ONE*, **2009**, 4, e7106	3.7	25
57	The pattern recognition receptor CD36 is a chondrocyte hypertrophy marker associated with suppression of catabolic responses and promotion of repair responses to inflammatory stimuli. *Journal of Immunology*, **2009**, 182, 5024-31	5.3	46
56	F-spondin, a neuroregulatory protein, is up-regulated in osteoarthritis and regulates cartilage metabolism via TGF-beta activation. *FASEB Journal*, **2009**, 23, 79-89	0.9	46
55	The CPPDD-associated ANKH M48T mutation interrupts the interaction of ANKH with the sodium/phosphate cotransporter PiT-1. *Journal of Rheumatology*, **2009**, 36, 1265-72	4.1	17
54	Control of chondrocyte gene expression by actin dynamics: a novel role of cholesterol/Ror-alpha signalling in endochondral bone growth. *Journal of Cellular and Molecular Medicine*, **2009**, 13, 3497-516	5.6	21
53	The role of Akt1 in terminal stages of endochondral bone formation: angiogenesis and ossification. *Bone*, **2009**, 45, 1133-45	4.7	76
52	The retinoic acid binding protein CRABP2 is increased in murine models of degenerative joint disease. *Arthritis Research and Therapy*, **2009**, 11, R14	5.7	36
51	Nitric oxide, C-type natriuretic peptide and cGMP as regulators of endochondral ossification. *Developmental Biology*, **2008**, 319, 171-8	3.1	56
50	Focal adhesion kinase/Src suppresses early chondrogenesis: central role of CCN2. *Journal of Biological Chemistry*, **2008**, 283, 9239-47	5.4	44
49	Rho-ROCK signaling differentially regulates chondrocyte spreading on fibronectin and bone sialoprotein. *American Journal of Physiology - Cell Physiology*, **2008**, 295, C38-49	5.4	11
48	The PI3K pathway regulates endochondral bone growth through control of hypertrophic chondrocyte differentiation. *BMC Developmental Biology*, **2008**, 8, 40	3.1	68
47	Transcriptional regulators of chondrocyte hypertrophy. *Birth Defects Research Part C: Embryo Today Reviews*, **2008**, 84, 123-30		42
46	Transforming growth factor alpha suppression of articular chondrocyte phenotype and Sox9 expression in a rat model of osteoarthritis. *Arthritis and Rheumatism*, **2007**, 56, 3693-705		55

45	Activating transcription factor 2 controls Bcl-2 promoter activity in growth plate chondrocytes. *Journal of Cellular Biochemistry*, **2007**, 101, 477-87	4.7	28
44	Regulation of chondrocyte differentiation by the actin cytoskeleton and adhesive interactions. *Journal of Cellular Physiology*, **2007**, 213, 1-8	7	196
43	C-type natriuretic peptide regulates endochondral bone growth through p38 MAP kinase-dependent and -independent pathways. *BMC Developmental Biology*, **2007**, 7, 18	3.1	70
42	Expression profiling of Dexamethasone-treated primary chondrocytes identifies targets of glucocorticoid signalling in endochondral bone development. *BMC Genomics*, **2007**, 8, 205	4.5	54
41	Inhibition of p38 MAPK signaling in chondrocyte cultures results in enhanced osteogenic differentiation of perichondral cells. *Experimental Cell Research*, **2007**, 313, 146-55	4.2	29
40	Molecular and histological analysis of a new rat model of experimental knee osteoarthritis. *Annals of the New York Academy of Sciences*, **2007**, 1117, 165-74	6.5	31
39	Rac1 signaling stimulates N-cadherin expression, mesenchymal condensation, and chondrogenesis. *Journal of Biological Chemistry*, **2007**, 282, 23500-8	5.4	93
38	C-type natriuretic peptide regulates cellular condensation and glycosaminoglycan synthesis during chondrogenesis. *Endocrinology*, **2007**, 148, 5030-41	4.8	36
37	Genetic ablation of Rac1 in cartilage results in chondrodysplasia. *Developmental Biology*, **2007**, 306, 612-23	3.1	82
36	Src kinase inhibition promotes the chondrocyte phenotype. *Arthritis Research and Therapy*, **2007**, 9, R105	5.7	33
35	Forced mobilization accelerates pathogenesis: characterization of a preclinical surgical model of osteoarthritis. *Arthritis Research and Therapy*, **2007**, 9, R13	5.7	98
34	Dexamethasone stimulates expression of C-type Natriuretic Peptide in chondrocytes. *BMC Musculoskeletal Disorders*, **2006**, 7, 87	2.8	13
33	Regulator of G-protein signaling (RGS) proteins differentially control chondrocyte differentiation. *Journal of Cellular Physiology*, **2006**, 207, 735-45	7	25
32	RhoA/ROCK signaling regulates chondrogenesis in a context-dependent manner. *Journal of Biological Chemistry*, **2006**, 281, 13134-13140	5.4	145
31	CCN2 is necessary for adhesive responses to transforming growth factor-beta1 in embryonic fibroblasts. *Journal of Biological Chemistry*, **2006**, 281, 10715-26	5.4	130
30	The transcription factor ATF3 is upregulated during chondrocyte differentiation and represses cyclin D1 and A gene transcription. *BMC Molecular Biology*, **2006**, 7, 30	4.5	68
29	Rac1/Cdc42 and RhoA GTPases antagonistically regulate chondrocyte proliferation, hypertrophy, and apoptosis. *Journal of Bone and Mineral Research*, **2005**, 20, 1022-31	6.3	78
28	Cell-cycle control and the cartilage growth plate. *Journal of Cellular Physiology*, **2005**, 202, 1-8	7	75

27	Microarray analyses of gene expression during chondrocyte differentiation identifies novel regulators of hypertrophy. *Molecular Biology of the Cell*, **2005**, 16, 5316-33	3.5	111
26	RhoA/ROCK signaling regulates Sox9 expression and actin organization during chondrogenesis. *Journal of Biological Chemistry*, **2005**, 280, 11626-34	5.4	220
25	RhoA/ROCK signaling suppresses hypertrophic chondrocyte differentiation. *Journal of Biological Chemistry*, **2004**, 279, 13205-14	5.4	104
24	p38 MAP kinase signaling is necessary for rat chondrosarcoma cell proliferation. *Oncogene*, **2004**, 23, 3726-31	9.2	45
23	p38 MAP kinase signalling is required for hypertrophic chondrocyte differentiation. *Biochemical Journal*, **2004**, 378, 53-62	3.8	118
22	Identification of the putative collagen X gene from the pufferfish Fugu rubripes. *Gene*, **2004**, 342, 77-83	3.8	4
21	p38 MAPK signaling during murine preimplantation development. *Developmental Biology*, **2004**, 268, 76-88	3.1	84
20	MAP kinases in chondrocyte differentiation. *Developmental Biology*, **2003**, 263, 165-75	3.1	128
19	The role of activating transcription factor-2 in skeletal growth control. *Journal of Bone and Joint Surgery - Series A*, **2003**, 85-A Suppl 2, 133-6	5.6	8
18	Role of c-fos in the regulation of type X collagen gene expression by PTH and PTHrP: localization of a PTH/PTHrP-responsive region in the human COL10A1 enhancer. *Journal of Cellular Biochemistry*, **2002**, 86, 688-99	4.7	41
17	The cyclin D1 and cyclin A genes are targets of activated PTH/PTHrP receptors in Jansen's metaphyseal chondrodysplasia. *Molecular Endocrinology*, **2002**, 16, 2163-73		39
16	TGFbeta and PTHrP control chondrocyte proliferation by activating cyclin D1 expression. *Molecular Biology of the Cell*, **2001**, 12, 3852-63	3.5	113
15	Activating transcription factor 2 is necessary for maximal activity and serum induction of the cyclin A promoter in chondrocytes. *Journal of Biological Chemistry*, **2000**, 275, 12948-53	5.4	63
14	The Raf-1/MEK/ERK pathway regulates the expression of the p21(Cip1/Waf1) gene in chondrocytes. *Journal of Biological Chemistry*, **1999**, 274, 30273-9	5.4	76
13	Raf signaling stimulates and represses the human collagen X promoter through distinguishable elements. *Journal of Cellular Biochemistry*, **1999**, 72, 549-57	4.7	16
12	Cell cycle genes in chondrocyte proliferation and differentiation. *Matrix Biology*, **1999**, 18, 109-20	11.4	39
11	Serum induction of the collagen X promoter requires the Raf/MEK/ERK and p38 pathways. *Biochemical and Biophysical Research Communications*, **1999**, 262, 50-4	3.4	12
10	Skeletal development and regeneration. *Current Opinion in Orthopaedics*, **1999**, 10, 466-471		1

9	Characterization of human type X procollagen and its NC-1 domain expressed as recombinant proteins in HEK293 cells. *Journal of Biological Chemistry*, **1998**, 273, 4547-55	5.4	48
8	Type X collagen expression and hypertrophic differentiation in chondrogenic neoplasias. *Histochemistry and Cell Biology*, **1997**, 107, 435-40	2.4	30
7	Localization of silencer and enhancer elements in the human type X collagen gene. *Journal of Cellular Biochemistry*, **1997**, 66, 210-8	4.7	31
6	Variability in the upstream promoter and intron sequences of the human, mouse and chick type X collagen genes. *Matrix Biology*, **1996**, 15, 415-22	11.4	17
5	Upregulation of type X collagen expression in osteoarthritic cartilage. *Acta Orthopaedica*, **1995**, 66, 125-129		28
4	Genomic organization and full-length cDNA sequence of human collagen X. *FEBS Letters*, **1992**, 311, 305-10	3.8	48
3	Control of chondrocyte gene expression by actin dynamics: a novel role of cholesterol/Ror-□ signalling in endochondral bone growth. *Journal of Cellular and Molecular Medicine*,13, 3497-3516	5.6	20
2	Exposure to the RXR agonist SR11237 in early life causes disturbed skeletal morphogenesis in a rat model		1
1	Glycogen synthase kinase 3 alpha/beta deletion induces precocious growth plate remodeling and cell loss in mice		1