

# Hee-Jeong Im

## List of Publications by Year in descending order

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103  
papers

7,966  
citations

47006

47  
h-index

51608

86  
g-index

107  
all docs

107  
docs citations

107  
times ranked

9588  
citing authors

#	ARTICLE	IF	CITATIONS
1	Osteoarthritis: toward a comprehensive understanding of pathological mechanism. Bone Research, 2017, 5, 16044.	11.4	731
2	MMP13 is a critical target gene during the progression of osteoarthritis. Arthritis Research and Therapy, 2013, 15, R5.	3.5	385
3	A current review of molecular mechanisms regarding osteoarthritis and pain. Gene, 2013, 527, 440-447.	2.2	328
4	Repetitive mechanical stretching modulates IL-1 $\beta$ induced COX-2, MMP-1 expression, and PGE2 production in human patellar tendon fibroblasts. Gene, 2005, 363, 166-172.	2.2	246
5	Mechanoregulation of gene expression in fibroblasts. Gene, 2007, 391, 1-15.	2.2	225
6	Articular chondrocytes express the receptor for advanced glycation end products: Potential role in osteoarthritis. Arthritis and Rheumatism, 2005, 52, 2376-2385.	6.7	206
7	NF- $\kappa$ B Mediates the Stimulation of Cytokine and Chemokine Expression by Human Articular Chondrocytes in Response to Fibronectin Fragments. Journal of Immunology, 2005, 174, 5781-5788.	0.8	193
8	MicroRNA Functions in Osteogenesis and Dysfunctions in Osteoporosis. Current Osteoporosis Reports, 2013, 11, 72-82.	3.6	192
9	MicroRNA-146a is linked to pain-related pathophysiology of osteoarthritis. Gene, 2011, 480, 34-41.	2.2	181
10	Targeting VEGF and Its Receptors for the Treatment of Osteoarthritis and Associated Pain. Journal of Bone and Mineral Research, 2016, 31, 911-924.	2.8	181
11	Recent progress in understanding molecular mechanisms of cartilage degeneration during osteoarthritis. Annals of the New York Academy of Sciences, 2011, 1240, 61-69.	3.8	160
12	Deletion of the Transforming Growth Factor $\beta$ 2 Receptor Type II Gene in Articular Chondrocytes Leads to a Progressive Osteoarthritis-Like Phenotype in Mice. Arthritis and Rheumatism, 2013, 65, 3107-3119.	6.7	159
13	HGF Mediates the Anti-inflammatory Effects of PRP on Injured Tendons. PLoS ONE, 2013, 8, e67303.	2.5	159
14	Basic Fibroblast Growth Factor Stimulates Matrix Metalloproteinase-13 via the Molecular Cross-talk between the Mitogen-activated Protein Kinases and Protein Kinase C $\gamma$ Pathways in Human Adult Articular Chondrocytes. Journal of Biological Chemistry, 2007, 282, 11110-11121.	3.4	156
15	The chondrocyte clock gene Bmal1 controls cartilage homeostasis and integrity. Journal of Clinical Investigation, 2015, 126, 365-376.	8.2	151
16	Biological impact of the fibroblast growth factor family on articular cartilage and intervertebral disc homeostasis. Gene, 2008, 420, 82-89.	2.2	150
17	Alteration of sensory neurons and spinal response to an experimental osteoarthritis pain model. Arthritis and Rheumatism, 2010, 62, 2995-3005.	6.7	149
18	High-Resolution Molecular Validation of Self-Renewal and Spontaneous Differentiation in Clinical-Grade Adipose-Tissue Derived Human Mesenchymal Stem Cells. Journal of Cellular Biochemistry, 2014, 115, 1816-1828.	2.6	142

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19	Prostaglandin E <sub>2</sub> and its cognate EP receptors control human adult articular cartilage homeostasis and are linked to the pathophysiology of osteoarthritis. <i>Arthritis and Rheumatism</i> , 2009, 60, 513-523.	6.7	137
20	Inhibitory Effects of Insulin-like Growth Factor-1 and Osteogenic Protein-1 on Fibronectin Fragment- and Interleukin-1 $\beta$ -stimulated Matrix Metalloproteinase-13 Expression in Human Chondrocytes. <i>Journal of Biological Chemistry</i> , 2003, 278, 25386-25394.	3.4	126
21	Fibronectin Fragment Activation of Proline-rich Tyrosine Kinase PYK2 Mediates Integrin Signals Regulating Collagenase-3 Expression by Human Chondrocytes through a Protein Kinase C-dependent Pathway. <i>Journal of Biological Chemistry</i> , 2003, 278, 24577-24585.	3.4	126
22	Fibroblast growth factor receptor 1 is principally responsible for fibroblast growth factor 2-induced catabolic activities in human articular chondrocytes. <i>Arthritis Research and Therapy</i> , 2011, 13, R130.	3.5	124
23	Increased Matrix Metalloproteinase-13 Production With Aging by Human Articular Chondrocytes in Response to Catabolic Stimuli. <i>Journals of Gerontology - Series A Biological Sciences and Medical Sciences</i> , 2005, 60, 1118-1124.	3.6	104
24	Basic fibroblast growth factor inhibits the anabolic activity of insulin-like growth factor 1 and osteogenic protein 1 in adult human articular chondrocytes. <i>Arthritis and Rheumatism</i> , 2005, 52, 3910-3917.	6.7	98
25	Hyaluronan Oligosaccharides Induce Matrix Metalloproteinase 13 via Transcriptional Activation of NF $\kappa$ B and p38 MAP Kinase in Articular Chondrocytes. <i>Journal of Biological Chemistry</i> , 2006, 281, 17952-17960.	3.4	95
26	EP4 receptor regulates collagen type-I, MMP-1, and MMP-3 gene expression in human tendon fibroblasts in response to IL-1 $\beta$ treatment. <i>Gene</i> , 2007, 386, 154-161.	2.2	95
27	Pain assessment in animal models of osteoarthritis. <i>Gene</i> , 2014, 537, 184-188.	2.2	94
28	Kindlin-2 controls TGF- $\beta$ 2 signalling and Sox9 expression to regulate chondrogenesis. <i>Nature Communications</i> , 2015, 6, 7531.	12.8	93
29	Conditional activation of $\beta$ -catenin signaling in mice leads to severe defects in intervertebral disc tissue. <i>Arthritis and Rheumatism</i> , 2012, 64, 2611-2623.	6.7	92
30	MicroRNA-146a reduces IL-1 dependent inflammatory responses in the intervertebral disc. <i>Gene</i> , 2015, 555, 80-87.	2.2	91
31	Basic Fibroblast Growth Factor Activates the MAPK and NF $\kappa$ B Pathways That Converge on Elk-1 to Control Production of Matrix Metalloproteinase-13 by Human Adult Articular Chondrocytes. <i>Journal of Biological Chemistry</i> , 2007, 282, 31409-31421.	3.4	90
32	Basic fibroblast growth factor accelerates matrix degradation via a neuroendocrine pathway in human adult articular chondrocytes. <i>Journal of Cellular Physiology</i> , 2008, 215, 452-463.	4.1	84
33	Increased expression of the Akt/PKB inhibitor TRB3 in osteoarthritic chondrocytes inhibits insulin-like growth factor 1-mediated cell survival and proteoglycan synthesis. <i>Arthritis and Rheumatism</i> , 2009, 60, 492-500.	6.7	80
34	Vascular Endothelial Growth Factor in Cartilage Development and Osteoarthritis. <i>Scientific Reports</i> , 2017, 7, 13027.	3.3	75
35	Altered Spinal MicroRNA-146a and the MicroRNA-183 Cluster Contribute to Osteoarthritic Pain in Knee Joints. <i>Journal of Bone and Mineral Research</i> , 2013, 28, 2512-2522.	2.8	73
36	Lactoferricin mediates anti-inflammatory and anti-catabolic effects via inhibition of IL-1 and LPS activity in the intervertebral disc. <i>Journal of Cellular Physiology</i> , 2013, 228, 1884-1896.	4.1	68

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37	The Action of Resveratrol, a Phytoestrogen Found in Grapes, on the Intervertebral Disc. Spine, 2008, 33, 2586-2595.	2.0	64
38	Species-specific biological effects of FGF-2 in articular cartilage: Implication for distinct roles within the FGF receptor family. Journal of Cellular Biochemistry, 2012, 113, 2532-2542.	2.6	63
39	The rat intervertebral disk degeneration pain model: relationships between biological and structural alterations and pain. Arthritis Research and Therapy, 2011, 13, R165.	3.5	60
40	Critical Role of Filamin-binding LIM Protein 1 (FBLP-1)/Migfilin in Regulation of Bone Remodeling. Journal of Biological Chemistry, 2012, 287, 21450-21460.	3.4	57
41	Targeting Runx2 expression in hypertrophic chondrocytes impairs endochondral ossification during early skeletal development. Journal of Cellular Physiology, 2012, 227, 3446-3456.	4.1	57
42	ATF4 promotes bone angiogenesis by increasing vegf expression and release in the bone environment. Journal of Bone and Mineral Research, 2013, 28, 1870-1884.	2.8	57
43	Critical Role of AKT Protein in Myeloma-induced Osteoclast Formation and Osteolysis. Journal of Biological Chemistry, 2013, 288, 30399-30410.	3.4	56
44	Hyaluronan oligosaccharide-induced activation of transcription factors in bovine articular chondrocytes. Arthritis and Rheumatism, 2005, 52, 800-809.	6.7	54
45	Insulin-like growth factor 1 synergizes with bone morphogenetic protein 7-mediated anabolism in bovine intervertebral disc cells. Arthritis and Rheumatism, 2010, 62, 3706-3715.	6.7	53
46	Toll-like receptor adaptor signaling molecule MyD88 on intervertebral disk homeostasis: In vitro, ex vivo studies. Gene, 2012, 505, 283-290.	2.2	51
47	ATF4 Promotes $\beta$ -Catenin Expression and Osteoblastic Differentiation of Bone Marrow Mesenchymal Stem Cells. International Journal of Biological Sciences, 2013, 9, 256-266.	6.4	50
48	MicroRNA-218-5p as a Potential Target for the Treatment of Human Osteoarthritis. Molecular Therapy, 2017, 25, 2676-2688.	8.2	50
49	Loss of histone methyltransferase Ezh2 stimulates an osteogenic transcriptional program in chondrocytes but does not affect cartilage development. Journal of Biological Chemistry, 2018, 293, 19001-19011.	3.4	50
50	Divergent Regulation of the Growth-promoting Gene IEX-1 by the p53 Tumor Suppressor and Sp1. Journal of Biological Chemistry, 2002, 277, 14612-14621.	3.4	49
51	Environmental Disruption of Circadian Rhythm Predisposes Mice to Osteoarthritis-like Changes in Knee Joint. Journal of Cellular Physiology, 2015, 230, 2174-2183.	4.1	47
52	Licochalcone-A induces intrinsic and extrinsic apoptosis via ERK1/2 and p38 phosphorylation-mediated TRAIL expression in head and neck squamous carcinoma FaDu cells. Food and Chemical Toxicology, 2015, 77, 34-43.	3.6	47
53	<i>PKC<math>\delta</math></i> null mutations in a mouse model of osteoarthritis alter osteoarthritic pain independently of joint pathology by augmenting NCF/TrkA-induced axonal outgrowth. Annals of the Rheumatic Diseases, 2016, 75, 2133-2141.	0.9	45
54	Action of fibroblast growth factor-2 on the intervertebral disc. Arthritis Research and Therapy, 2008, 10, R48.	3.5	44

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55	Biochanin-A antagonizes the interleukin-1 $\beta$ -induced catabolic inflammation through the modulation of NF $\kappa$ B cellular signaling in primary rat chondrocytes. <i>Biochemical and Biophysical Research Communications</i> , 2016, 477, 723-730.	2.1	43
56	Characterization of a new animal model for evaluation and treatment of back pain due to lumbar facet joint osteoarthritis. <i>Arthritis and Rheumatism</i> , 2011, 63, 2966-2973.	6.7	42
57	Fibroblast growth factor $\beta$ promotes catabolism via FGFR1 $\rightarrow$ Ras $\rightarrow$ Raf $\rightarrow$ MEK1/2 $\rightarrow$ ERK1/2 axis that coordinates with the PKC $\delta$ pathway in human articular chondrocytes. <i>Journal of Cellular Biochemistry</i> , 2012, 113, 2856-2865.	2.6	42
58	Animal models for studying the etiology and treatment of low back pain. <i>Journal of Orthopaedic Research</i> , 2018, 36, 1305-1312.	2.3	41
59	Licochalcone A induces apoptosis in KB human oral cancer cells via a caspase-dependent FasL signaling pathway. <i>Oncology Reports</i> , 2014, 31, 755-762.	2.6	40
60	Biological effects of the plant $\alpha$ -derived polyphenol resveratrol in human articular cartilage and chondrosarcoma cells. <i>Journal of Cellular Physiology</i> , 2012, 227, 3488-3497.	4.1	39
61	Induction of CD44 cleavage in articular chondrocytes. <i>Arthritis and Rheumatism</i> , 2010, 62, 1338-1348.	6.7	37
62	Bovine lactoferricin is anti $\alpha$ -inflammatory and anti $\alpha$ -catabolic in human articular cartilage and synovium. <i>Journal of Cellular Physiology</i> , 2013, 228, 447-456.	4.1	37
63	Berberine induces FasL-related apoptosis through p38 activation in KB human oral cancer cells. <i>Oncology Reports</i> , 2015, 33, 1775-1782.	2.6	36
64	The pathophysiologic role of the protein kinase C $\delta$ pathway in the intervertebral discs of rabbits and mice: In vitro, ex vivo, and in vivo studies. <i>Arthritis and Rheumatism</i> , 2012, 64, 1950-1959.	6.7	32
65	Rho-Associated Kinase Inhibitor Immortalizes Rat Nucleus Pulposus and Annulus Fibrosus Cells. <i>Spine</i> , 2016, 41, E255-E261.	2.0	32
66	Molecular Validation of Chondrogenic Differentiation and Hypoxia Responsiveness of Platelet-Lysate Expanded Adipose Tissue $\alpha$ -Derived Human Mesenchymal Stromal Cells. <i>Cartilage</i> , 2017, 8, 283-299.	2.7	32
67	Immediate early gene X-1 interacts with proteins that modulate apoptosis. <i>Biochemical and Biophysical Research Communications</i> , 2004, 323, 1293-1298.	2.1	31
68	Lactoferricin mediates anabolic and anti $\alpha$ -catabolic effects in the intervertebral disc. <i>Journal of Cellular Physiology</i> , 2012, 227, 1512-1520.	4.1	31
69	Safety Studies for Use of Adipose Tissue-Derived Mesenchymal Stromal/Stem Cells in a Rabbit Model for Osteoarthritis to Support a Phase I Clinical Trial. <i>Stem Cells Translational Medicine</i> , 2017, 6, 910-922.	3.3	31
70	Development of an Experimental Animal Model for Lower Back Pain by Percutaneous Injury-Induced Lumbar Facet Joint Osteoarthritis. <i>Journal of Cellular Physiology</i> , 2015, 230, 2837-2847.	4.1	30
71	MiR-202-3p regulates interleukin-1 $\beta$ -induced expression of matrix metalloproteinase 1 in human nucleus pulposus. <i>Gene</i> , 2019, 687, 156-165.	2.2	30
72	Pharmacological targeting of the mammalian clock reveals a novel analgesic for osteoarthritis-induced pain. <i>Gene</i> , 2018, 655, 1-12.	2.2	29

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73	Development of an in vivo mouse model of discogenic low back pain. <i>Journal of Cellular Physiology</i> , 2018, 233, 6589-6602.	4.1	29
74	Nicotinamide Phosphoribosyltransferase Inhibitor APO866 Prevents IL-1 $\beta$ -Induced Human Nucleus Pulposus Cell Degeneration via Autophagy. <i>Cellular Physiology and Biochemistry</i> , 2018, 49, 2463-2482.	1.6	27
75	Characterization of a novel hexameric repeat DNA sequence in the promoter of the immediate early gene, IEX-1, that mediates 1 $\alpha$ ,25-dihydroxyvitamin D3-associated IEX-1 gene repression. <i>Oncogene</i> , 2002, 21, 3706-3714.	5.9	25
76	Osteoarthritic tissues modulate functional properties of sensory neurons associated with symptomatic OA pain. <i>Molecular Biology Reports</i> , 2011, 38, 5335-5339.	2.3	25
77	ADAR1 ablation decreases bone mass by impairing osteoblast function in mice. <i>Gene</i> , 2013, 513, 101-110.	2.2	25
78	Osteoarthritis-like pathologic changes in the knee joint induced by environmental disruption of circadian rhythms is potentiated by a high-fat diet. <i>Scientific Reports</i> , 2015, 5, 16896.	3.3	25
79	RNA-seq analysis of clinical-grade osteochondral allografts reveals activation of early response genes. <i>Journal of Orthopaedic Research</i> , 2016, 34, 1950-1959.	2.3	24
80	Leukotriene B4 at low dosage negates the catabolic effect of prostaglandin E2 in human patellar tendon fibroblasts. <i>Gene</i> , 2006, 372, 103-109.	2.2	23
81	Mouse $\mu$ Opioid Receptor Gene Expression. <i>Journal of Biological Chemistry</i> , 1998, 273, 34926-34932.	3.4	22
82	Transcriptional Modulation of Mouse $\mu$ -Opioid Receptor Distal Promoter Activity by Sox18. <i>Molecular Pharmacology</i> , 2001, 59, 1486-1496.	2.3	22
83	Emerging roles of SUMO modification in arthritis. <i>Gene</i> , 2010, 466, 1-15.	2.2	20
84	Lumbar Facet Joint Compressive Injury Induces Lasting Changes in Local Structure, Nociceptive Scores, and Inflammatory Mediators in a Novel Rat Model. <i>Pain Research and Treatment</i> , 2012, 2012, 1-11.	1.7	20
85	Bovine Lactoferricin-induced Anti-inflammation Is, in Part, via Up-regulation of Interleukin-11 by Secondary Activation of STAT3 in Human Articular Cartilage. <i>Journal of Biological Chemistry</i> , 2013, 288, 31655-31669.	3.4	20
86	Bovine lactoferricin induces TIMP-3 via the ERK1/2-Sp1 axis in human articular chondrocytes. <i>Gene</i> , 2013, 517, 12-18.	2.2	19
87	Coumestrol Counteracts Interleukin-1 $\beta$ -Induced Catabolic Effects by Suppressing Inflammation in Primary Rat Chondrocytes. <i>Inflammation</i> , 2017, 40, 79-91.	3.8	19
88	Gut-microbiota modulation: The impact of the gut-microbiota on osteoarthritis. <i>Gene</i> , 2021, 785, 145619.	2.2	17
89	Lactobacillus acidophilus Mitigates Osteoarthritis-Associated Pain, Cartilage Disintegration and Gut Microbiota Dysbiosis in an Experimental Murine OA Model. <i>Biomedicines</i> , 2022, 10, 1298.	3.2	17
90	Lactoferricin enhances BMP7-stimulated anabolic pathways in intervertebral disc cells. <i>Gene</i> , 2013, 524, 282-291.	2.2	16

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91	Induction of Osteoarthritis-like Pathologic Changes by Chronic Alcohol Consumption in an Experimental Mouse Model. <i>Arthritis and Rheumatology</i> , 2015, 67, 1678-1680.	5.6	16
92	The synovial microenvironment of osteoarthritic joints alters RNA-seq expression profiles of human primary articular chondrocytes. <i>Gene</i> , 2016, 591, 456-464.	2.2	16
93	Blockade of vascular endothelial growth factor receptor-1 (Flt-1), reveals a novel analgesic for osteoarthritis-induced joint pain. <i>Gene Reports</i> , 2018, 11, 94-100.	0.8	16
94	A Novel Vitamin D-Regulated Immediate-Early Gene, IEX-1, Alters Cellular Growth and Apoptosis. <i>Recent Results in Cancer Research</i> , 2003, 164, 123-134.	1.8	16
95	Opioid receptor gene: cytokine response element and the effect of cytokines. <i>Brain Research</i> , 1999, 829, 174-179.	2.2	15
96	Absence of VEGFR $\alpha$ 1/Flt $\alpha$ 1 signaling pathway in mice results in insensitivity to discogenic low back pain in an established disc injury mouse model. <i>Journal of Cellular Physiology</i> , 2020, 235, 5305-5317.	4.1	15
97	Biological Effects of the Herbal Plant-Derived Phytoestrogen Bavachin in Primary Rat Chondrocytes. <i>Biological and Pharmaceutical Bulletin</i> , 2015, 38, 1199-1207.	1.4	12
98	Col10a1-Runx2 transgenic mice with delayed chondrocyte maturation are less susceptible to developing osteoarthritis. <i>American Journal of Translational Research (discontinued)</i> , 2014, 6, 736-45.	0.0	12
99	Basic fibroblast growth factor induces matrix metalloproteinase-13 via ERK MAP kinase-altered phosphorylation and sumoylation of Elk-1 in human adult articular chondrocytes. <i>Open Access Rheumatology: Research and Reviews</i> , 2009, 1, 151.	1.6	8
100	Intraarticular slow-release triamcinolone acetate reduces allodynia in an experimental mouse knee osteoarthritis model. <i>Gene</i> , 2016, 591, 1-5.	2.2	7
101	The anti-catabolic role of bovine lactoferricin in cartilage. <i>Biomolecular Concepts</i> , 2013, 4, 495-500.	2.2	6
102	Effect of LOXL2 on metastasis through remodeling of the cell surface matrix in non-small cell lung cancer cells. <i>Gene</i> , 2022, 830, 146504.	2.2	3
103	Adherens junction protein, p120 catenin, represses transcriptional activity of endothelial cells. <i>FASEB Journal</i> , 2009, 23, 1028.3.	0.5	0