Hiroshi Takayanagi

List of Publications by Year
in descending order

121 papers	26,335 citations	22099 59 h-index	17546 121 g-index
141 all docs	141 docs citations	141 times ranked	20913 citing authors

#	Article	IF	Citations
1	Induction and Activation of the Transcription Factor NFATc1 (NFAT2) Integrate RANKL Signaling in Terminal Differentiation of Osteoclasts. Developmental Cell, 2002, 3, 889-901.	3.1	2,221
2	Osteoimmunology: shared mechanisms and crosstalk between the immune and bone systems. Nature Reviews Immunology, 2007, 7, 292-304.	10.6	1,674
3	Evidence for osteocyte regulation of bone homeostasis through RANKL expression. Nature Medicine, 2011, 17, 1231-1234.	15.2	1,593
4	Th17 functions as an osteoclastogenic helper T cell subset that links T cell activation and bone destruction. Journal of Experimental Medicine, 2006, 203, 2673-2682.	4.2	1,320
5	T-cell-mediated regulation of osteoclastogenesis by signalling cross-talk between RANKL and IFN-Î³. Nature, 2000, 408, 600-605.	13.7	1,247
6	The molecular understanding of osteoclast differentiation. Bone, 2007, 40, 251-264.	1.4	1,177
7	Pathogenic conversion of Foxp3+ T cells into TH17 cells in autoimmune arthritis. Nature Medicine, 2014, 20, 62-68.	15.2	930
8	Estrogen Prevents Bone Loss via Estrogen Receptor Î± and Induction of Fas Ligand in Osteoclasts. Cell, 2007, 130, 811-823.	13.5	866
9	RANKL maintains bone homeostasis through c-Fos-dependent induction of interferon-Î². Nature, 2002, 416, 744-749.	13.7	783
10	Costimulatory signals mediated by the ITAM motif cooperate with RANKL for bone homeostasis. Nature, 2004, 428, 758-763.	13.7	782
11	Autoamplification of NFATc1 expression determines its essential role in bone homeostasis. Journal of Experimental Medicine, 2005, 202, 1261-1269.	4.2	758
12	Involvement of receptor activator of nuclear factor ÎºB ligand/osteoclast differentiation factor in osteoclastogenesis from synoviocytes in rheumatoid arthritis. Arthritis and Rheumatism, 2000, 43, 259.	6.7	577
13	Osteoprotection by semaphorin 3A. Nature, 2012, 485, 69-74.	13.7	501
14	The Tumor Necrosis Factor Family Receptors RANK and CD40 Cooperatively Establish the Thymic Medullary Microenvironment and Self-Tolerance. Immunity, 2008, 29, 423-437.	6.6	434
15	Suppression of bone formation by osteoclastic expression of semaphorin 4D. Nature Medicine, 2011, 17, 1473-1480.	15.2	426
16	Osteoimmunology: evolving concepts in boneâ€"immune interactions in health and disease. Nature Reviews Immunology, 2019, 19, 626-642.	10.6	402
17	Cathepsin K-Dependent Toll-Like Receptor 9 Signaling Revealed in Experimental Arthritis. Science, 2008, 319, 624-627.	6.0	401
18	The Role of NFAT in Osteoclast Formation. Annals of the New York Academy of Sciences, 2007, 1116, 227-237.	1.8	395

#	Article	IF	Citations
19	Osteoimmunology and the effects of the immune system on bone. Nature Reviews Rheumatology, 2009, 5, 667-676.	3.5	395
20	The Cytokine RANKL Produced by Positively Selected Thymocytes Fosters Medullary Thymic Epithelial Cells that Express Autoimmune Regulator. Immunity, 2008, 29, 438-450.	6.6	375
21	Essential Role of p38 Mitogen-activated Protein Kinase in Cathepsin K Gene Expression during Osteoclastogenesis through Association of NFATc1 and PU.1. Journal of Biological Chemistry, 2004, 279, 45969-45979.	1.6	365
22	Mechanistic insight into osteoclast differentiation in osteoimmunology. Journal of Molecular Medicine, 2005, 83, 170-179.	1.7	362
23	IÎºBÎ¶ regulates TH17 development by cooperating with ROR nuclear receptors. Nature, 2010, 464, 1381-1385.	13.7	361
24	Ca²⁺â€NFATc1 signaling is an essential axis of osteoclast differentiation. Immunological Reviews, 2009, 231, 241-256.	2.8	355
25	Osteoimmunology: The Conceptual Framework Unifying the Immune and Skeletal Systems. Physiological Reviews, 2017, 97, 1295-1349.	13.1	347
26	Fezf2 Orchestrates a Thymic Program of Self-Antigen Expression for Immune Tolerance. Cell, 2015, 163, 975-987.	13.5	327
27	Regulation of osteoclast differentiation and function by the CaMK-CREB pathway. Nature Medicine, 2006, 12, 1410-1416.	15.2	302
28	Tyrosine Kinases Btk and Tec Regulate Osteoclast Differentiation by Linking RANK and ITAM Signals. Cell, 2008, 132, 794-806.	13.5	297
29	New insights into osteoclastogenic signaling mechanisms. Trends in Endocrinology and Metabolism, 2012, 23, 582-590.	3.1	275
30	IL-17-producing Î³Î´ T cells enhance bone regeneration. Nature Communications, 2016, 7, 10928.	5.8	271
31	Interferon regulatory factor-8 regulates bone metabolism by suppressing osteoclastogenesis. Nature Medicine, 2009, 15, 1066-1071.	15.2	270
32	Antiviral response by natural killer cells throughTRAIL gene induction by IFN-Î±/Î². European Journal of Immunology, 2001, 31, 3138-3146.	1.6	241
33	Inflammatory bone destruction and osteoimmunology. Journal of Periodontal Research, 2005, 40, 287-293.	1.4	227
34	Host defense against oral microbiota by bone-damaging T cells. Nature Communications, 2018, 9, 701.	5.8	215
35	New developments in osteoimmunology. Nature Reviews Rheumatology, 2012, 8, 684-689.	3.5	213
36	The Mechanisms of T Cell Selection in the Thymus. Trends in Immunology, 2017, 38, 805-816.	2.9	199

#	Article	IF	Citations
37	Osteoimmunology: Crosstalk Between the Immune and Bone Systems. Journal of Clinical Immunology, 2009, 29, 555-567.	2.0	191
38	DNA methyltransferase 3a regulates osteoclast differentiation by coupling to an S-adenosylmethionineâ€"producing metabolic pathway. Nature Medicine, 2015, 21, 281-287.	15.2	190
39	A New Mechanism of Bone Destruction in Rheumatoid Arthritis: Synovial Fibroblasts Induce Osteoclastogenesis. Biochemical and Biophysical Research Communications, 1997, 240, 279-286.	1.0	181
40	RANKL expressed on synovial fibroblasts is primarily responsible for bone erosions during joint inflammation. Annals of the Rheumatic Diseases, 2016, 75, 1187-1195.	0.5	177
41	Interplay between interferon and other cytokine systems in bone metabolism. Immunological Reviews, 2005, 208, 181-193.	2.8	158
42	Blimp1-mediated repression of negative regulators is required for osteoclast differentiation. Proceedings of the National Academy of Sciences of the United States of America, 2010, 107, 3117-3122.	3.3	156
43	Maf promotes osteoblast differentiation in mice by mediating the age-related switch in mesenchymal cell differentiation. Journal of Clinical Investigation, 2010, 120, 3455-3465.	3.9	152
44	Signaling crosstalk between RANKL and interferons in osteoclast differentiation. Arthritis Research, 2002, 4, S227.	2.0	138
45	Osteoimmunology in Bone Fracture Healing. Current Osteoporosis Reports, 2017, 15, 367-375.	1.5	133
46	Mechanisms of joint destruction in rheumatoid arthritis â€" immune cellâ€"fibroblastâ€"bone interactions. Nature Reviews Rheumatology, 2022, 18, 415-429.	3.5	124
47	Identification of subepithelial mesenchymal cells that induce IgA and diversify gut microbiota. Nature Immunology, 2017, 18, 675-682.	7.0	119
48	Autoregulation of Osteocyte Sema3A Orchestrates Estrogen Action and Counteracts Bone Aging. Cell Metabolism, 2019, 29, 627-637.e5.	7.2	112
49	Immune complexes regulate bone metabolism through FcRÎ³ signalling. Nature Communications, 2015, 6, 6637.	5.8	110
50	Sepsis-Induced Osteoblast Ablation Causes Immunodeficiency. Immunity, 2016, 44, 1434-1443.	6.6	99
51	Immunology and bone. Journal of Biochemistry, 2013, 154, 29-39.	0.9	93
52	Inflammation and Bone Destruction in Arthritis: Synergistic Activity of Immune and Mesenchymal Cells in Joints. Frontiers in Immunology, 2012, 3, 77.	2.2	87
53	The immune system, bone and RANKL. Archives of Biochemistry and Biophysics, 2014, 561, 118-123.	1.4	82
54	New immune connections in osteoclast formation. Annals of the New York Academy of Sciences, 2010, 1192, 117-123.	1.8	79

#	Article	IF	Citations
55	RANKL as the master regulator of osteoclast differentiation. Journal of Bone and Mineral Metabolism, 2021, 39, 13-18.	1.3	79
56	Bone cell communication factors and Semaphorins. BoneKEy Reports, 2012, 1, 183.	2.7	76
57	Autoimmune Arthritis. Advances in Immunology, 2012, 115, 45-71.	1.1	74
58	Efficacy of an orally active small-molecule inhibitor of RANKL in bone metastasis. Bone Research, 2019, 7, 1.	5.4	72
59	Inhibition of the TNF Family Cytokine RANKL Prevents Autoimmune Inflammation in the Central Nervous System. Immunity, 2015, 43, 1174-1185.	6.6	65
60	Osteocyte regulation of orthodontic force-mediated tooth movement via RANKL expression. Scientific Reports, 2017, 7, 8753.	1.6	65
61	Osteoimmunology. Cold Spring Harbor Perspectives in Medicine, 2019, 9, a031245.	2.9	64
62	Arginine methylation controls the strength of Î³c-family cytokine signaling in T cell maintenance. Nature Immunology, 2018, 19, 1265-1276.	7.0	61
63	Stepwise cell fate decision pathways during osteoclastogenesis at single-cell resolution. Nature Metabolism, 2020, 2, 1382-1390.	5.1	60
64	Stage-specific functions of leukemia/lymphoma-related factor (LRF) in the transcriptional control of osteoclast development. Proceedings of the National Academy of Sciences of the United States of America, 2012, 109, 2561-2566.	3.3	59
65	OPG Production Matters Where It Happened. Cell Reports, 2020, 32, 108124.	2.9	56
66	Fibroblasts as a source of self-antigens for central immune tolerance. Nature Immunology, 2020, 21, 1172-1180.	7.0	54
67	Soluble RANKL is physiologically dispensable but accelerates tumour metastasis to bone. Nature Metabolism, 2019, 1, 868-875.	5.1	53
68	Endoplasmic reticulum mediates mitochondrial transfer within the osteocyte dendritic network. Science Advances, 2019, 5, eaaw7215.	4.7	53
69	Overview of Osteoimmunology. Calcified Tissue International, 2018, 102, 503-511.	1.5	52
70	T cell receptor signaling for Î³Î´T cell development. Inflammation and Regeneration, 2019, 39, 6.	1.5	51
71	The orally available Btk inhibitor ibrutinib (PCI-32765) protects against osteoclast-mediated bone loss. Bone, 2014, 60, 8-15.	1.4	50
72	Modulation of Osteoclast Function by Adenovirus Vector-Induced Epidermal Growth Factor Receptor. Journal of Bone and Mineral Research, 1998, 13, 1714-1720.	3.1	48

#	Article	IF	Citations
73	Two-faced immunologyâ€"from osteogenesis to bone resorption. Nature Reviews Rheumatology, 2015, 11, 74-76.	3.5	48
74	Glucocorticoid impairs cell-cell communication by autophagy-mediated degradation of connexin 43 in osteocytes. Oncotarget, 2016, 7, 26966-26978.	0.8	48
75	The thymic cortical epithelium determines the <scp>TCR</scp> repertoire of <scp>IL</scp> â€17â€producing Î³Î´T cells. EMBO Reports, 2015, 16, 638-653.	2.0	45
76	Butyrophilin-like proteins display combinatorial diversity in selecting and maintaining signature intraepithelial Î³Î´ T cell compartments. Nature Communications, 2020, 11, 3769.	5.8	44
77	Chd4 choreographs self-antigen expression for central immune tolerance. Nature Immunology, 2020, 21, 892-901.	7.0	42
78	LOX Fails to Substitute for RANKL in Osteoclastogenesis. Journal of Bone and Mineral Research, 2017, 32, 434-439.	3.1	41
79	Stat1-mediated cytoplasmic attenuation in osteoimmunology. Journal of Cellular Biochemistry, 2005, 94, 232-240.	1.2	39
80	In Vitro and In Vivo Suppression of Osteoclast Function by Adenovirus Vector-Induced csk Gene. Journal of Bone and Mineral Research, 2000, 15, 41-51.	3.1	38
81	Class IA phosphatidylinositol 3-kinase regulates osteoclastic bone resorption through protein kinase Bâ€"mediated vesicle transport. Journal of Bone and Mineral Research, 2012, 27, 2464-2475.	3.1	35
82	Scientific basis for the efficacy of combined use of antirheumatic drugs against bone destruction in rheumatoid arthritis. Modern Rheumatology, 2007, 17, 17-23.	0.9	33
83	RANK rewires energy homeostasis in lung cancer cells and drives primary lung cancer. Genes and Development, 2017, 31, 2099-2112.	2.7	32
84	Î³Î´TCR recruits the Syk/PI3K axis to drive proinflammatory differentiation program. Journal of Clinical Investigation, 2017, 128, 415-426.	3.9	32
85	The Unexpected Link Between Osteoclasts and the Immune System. Advances in Experimental Medicine and Biology, 2009, 658, 61-68.	0.8	29
86	Intravital imaging of Ca2+ signals in lymphocytes of Ca2+ biosensor transgenic mice: indication of autoimmune diseases before the pathological onset. Scientific Reports, 2016, 6, 18738.	1.6	28
87	Non-Epithelial Thymic Stromal Cells: Unsung Heroes in Thymus Organogenesis and T Cell Development. Frontiers in Immunology, 2020, 11, 620894.	2.2	28
88	Plasma cells promote osteoclastogenesis and periarticular bone loss in autoimmune arthritis. Journal of Clinical Investigation, 2021, 131, .	3.9	25
89	Regulatory T cells in Arthritis. Progress in Molecular Biology and Translational Science, 2015, 136, 207-215.	0.9	24
90	Arthritogenic T cells in autoimmune arthritis. International Journal of Biochemistry and Cell Biology, 2015, 58, 92-96.	1.2	23

#	Article	IF	Citations
91	Periosteal stem cells control growth plate stem cells during postnatal skeletal growth. Nature Communications, 2022, 13, .	5.8	23
92	Ly49Q, an ITIM-bearing NK receptor, positively regulates osteoclast differentiation. Biochemical and Biophysical Research Communications, 2010, 393, 432-438.	1.0	22
93	Rheumatoid arthritis associated with osteopetrosis. Modern Rheumatology, 2009, 19, 687-690.	0.9	21
94	SnapShot: Osteoimmunology. Cell Metabolism, 2015, 21, 502-502.e1.	7.2	20
95	Global epigenomic analysis indicates protocadherin-7 activates osteoclastogenesis by promoting cellâ€“cell fusion. Biochemical and Biophysical Research Communications, 2014, 455, 305-311.	1.0	17
96	Human thymoproteasome variations influence CD8 T cell selection. Science Immunology, 2017, 2, .	5.6	16
97	The fibroblast: An emerging key player in thymic T cell selection. Immunological Reviews, 2021, 302, 68-85.	2.8	16
98	The role of the BH3-only protein Noxa in bone homeostasis. Biochemical and Biophysical Research Communications, 2011, 410, 620-625.	1.0	15
99	Runx2-I Isoform Contributes to Fetal Bone Formation Even in the Absence of Specific N-Terminal Amino Acids. PLoS ONE, 2014, 9, e108294.	1.1	15
100	Roles of Enhancer RNAs in RANKL-induced Osteoclast Differentiation Identified by Genome-wide Cap-analysis of Gene Expression using CRISPR/Cas9. Scientific Reports, 2018, 8, 7504.	1.6	15
101	The role of bone cells in immune regulation during the course of infection. Seminars in Immunopathology, 2019, 41, 619-626.	2.8	15
102	Targeted deletion of RANKL in M cell inducer cells by the Col6a1-Cre driver. Biochemical and Biophysical Research Communications, 2017, 493, 437-443.	1.0	14
103	Osteoimmunological insight into bone damage in rheumatoid arthritis. Modern Rheumatology, 2005, 15, 225-231.	0.9	12
104	Interaction between the immune system and bone metabolism: an emerging field of osteoimmunology. Proceedings of the Japan Academy Series B: Physical and Biological Sciences, 2007, 83, 136-143.	1.6	12
105	Phosphoproteomic analysis of kinase-deficient mice reveals multiple TAK1 targets in osteoclast differentiation. Biochemical and Biophysical Research Communications, 2015, 463, 1284-1290.	1.0	12
106	Mice lacking all of the <i>Skint</i> family genes. International Immunology, 2018, 30, 301-309.	1.8	11
107	Inhibitory effect of chloroquine on bone resorption reveals the key role of lysosomes in osteoclast differentiation and function. Inflammation and Regeneration, 2012, 32, 222-231.	1.5	9
108	Cytokine profile in patients with chronic non-bacterial osteomyelitis, juvenile idiopathic arthritis, and insulin-dependent diabetes mellitus. Cytokine, 2021, 143, 155521.	1.4	8

#	Article	IF	Citations
109	Osteoimmunological insight into bone damage in rheumatoid arthritis. Modern Rheumatology, 2005, 15, 225-231.	0.9	8
110	Osteoimmunology â€" Bidirectional dialogue and inevitable union of the fields of bone and immunity â€". Proceedings of the Japan Academy Series B: Physical and Biological Sciences, 2020, 96, 159-169.	1.6	7
111	Osteoimmunology as an intrinsic part of immunology. International Immunology, 2021, 33, 673-678.	1.8	7
112	The transcription factor Sox4 is required for thymic tuft cell development. International Immunology, 2022, 34, 45-52.	1.8	7
113	Suppression of hematopoietic cell kinase ameliorates the bone destruction associated with inflammation. Modern Rheumatology, 2020, 30, 85-92.	0.9	5
114	Novel Signaling Pathways and Therapeutic Targets in Osteoclasts. Advances in Experimental Medicine and Biology, 2007, 602, 93-96.	0.8	5
115	Stromal Interaction Molecule Deficiency in T Cells Promotes Spontaneous Follicular Helper T Cell Development and Causes Type 2 Immune Disorders. Journal of Immunology, 2019, 202, 2616-2627.	0.4	4
116	Identification of a p53 target, CD137L, that mediates growth suppression and immune response of osteosarcoma cells. Scientific Reports, 2017, 7, 10739.	1.6	3
117	Retroviral Gene Transduction into T Cell Progenitors for Analysis of T Cell Development in the Thymus. Methods in Molecular Biology, 2020, 2111, 193-203.	0.4	2
118	Osteoimmunology. , 2018, , 261-282.		1
119	Potential molecular targets for suppressing Th17 development. Inflammation and Regeneration, 2011, 31, 354-360.	1.5	0
120	RANKL inhibition -Bone and beyond-. Proceedings for Annual Meeting of the Japanese Pharmacological Society, 2018, WCP2018, SY42-1.	0.0	0
121	T Cells in The Regulation of Bone Metabolism. , 2020, , 12-19.		0