

Hannu T Aro

List of Publications by Year in descending order

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110
papers

5,732
citations

70961

41
h-index

76769

74
g-index

111
all docs

111
docs citations

111
times ranked

6087
citing authors

#	ARTICLE	IF	CITATIONS
1	RECOMBINANT HUMAN BONE MORPHOGENETIC PROTEIN-2 FOR TREATMENT OF OPEN TIBIAL FRACTURES. Journal of Bone and Joint Surgery - Series A, 2002, 84, 2123-2134.	1.4	1,092
2	Pore diameter of more than 100 μ m is not requisite for bone ingrowth in rabbits. Journal of Biomedical Materials Research Part B, 2001, 58, 679-683.	3.0	329
3	Minor axial shortening of the radius affects outcome of Colles' fracture treatment. Journal of Hand Surgery, 1991, 16, 392-398.	0.7	179
4	A standardized experimental fracture in the mouse tibia. Journal of Orthopaedic Research, 1993, 11, 305-312.	1.2	176
5	Recombinant Human Bone Morphogenetic Protein-2 in Open Tibial Fractures. Journal of Bone and Joint Surgery - Series A, 2006, 88, 1258-1265.	1.4	166
6	Low BMD affects initial stability and delays stem osseointegration in cementless total hip arthroplasty in women. Monthly Notices of the Royal Astronomical Society: Letters, 2012, 83, 107-114.	1.2	158
7	Recombinant Human Bone Morphogenetic Protein-2: A Randomized Trial in Open Tibial Fractures Treated with Reamed Nail Fixation. Journal of Bone and Joint Surgery - Series A, 2011, 93, 801-808.	1.4	155
8	The incidence of osteopenia and osteoporosis in women with hip osteoarthritis scheduled for cementless total joint replacement. Bone, 2007, 40, 1041-1047.	1.4	130
9	Silica-based bioactive glasses modulate expression of bone morphogenetic protein-2 mRNA in Saos-2 osteoblasts in vitro. Biomaterials, 2001, 22, 1475-1483.	5.7	125
10	Accelerated Turnover of Metaphyseal Trabecular Bone in Mice Overexpressing Cathepsin K. Journal of Bone and Mineral Research, 2001, 16, 1444-1452.	3.1	119
11	Circulating plastic adherent mesenchymal stem cells in aged hip fracture patients. Journal of Orthopaedic Research, 2010, 28, 1634-1642.	1.2	109
12	MicroRNAs miR-96, miR-124, and miR-199a regulate gene expression in human bone marrow-derived mesenchymal stem cells. Journal of Cellular Biochemistry, 2012, 113, 2687-2695.	1.2	108
13	Mouse cathepsin K: cDNA cloning and predominant expression of the gene in osteoclasts, and in some hypertrophying chondrocytes during mouse development. FEBS Letters, 1996, 393, 307-313.	1.3	97
14	Clinical Use of Bone Allografts. Annals of Medicine, 1993, 25, 403-412.	1.5	94
15	High tibial osteotomy for the treatment of osteoarthritis of the knee: a review of the literature and a meta-analysis of follow-up studies. Archives of Orthopaedic and Trauma Surgery, 2004, 124, 258-261.	1.3	92
16	A metaphyseal defect model of the femur for studies of murine bone healing. Bone, 2001, 28, 423-429.	1.4	84
17	Enhancement of Fracture Healing by Mechanical and Surgical Intervention. Clinical Orthopaedics and Related Research, 1998, 355S, S163-S178.	0.7	80
18	Effect of immersion in SBF on porous bioactive bodies made by sintering bioactive glass microspheres. Journal of Non-Crystalline Solids, 2000, 275, 107-115.	1.5	72

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19	Comparison of 18F-FDG and 68Ga PET imaging in the assessment of experimental osteomyelitis due to Staphylococcus aureus. <i>European Journal of Nuclear Medicine and Molecular Imaging</i> , 2005, 32, 1259-1268.	3.3	69
20	In vitro and in vivo release of ciprofloxacin from osteoconductive bone defect filler. <i>Journal of Antimicrobial Chemotherapy</i> , 2005, 56, 1063-1068.	1.3	67
21	Female patients with low systemic BMD are prone to bone loss in Gruen zone 7 after cementless total hip arthroplasty. <i>Monthly Notices of the Royal Astronomical Society: Letters</i> , 2009, 80, 531-537.	1.2	66
22	Development of a multi-component fiber-reinforced composite implant for load-sharing conditions. <i>Medical Engineering and Physics</i> , 2009, 31, 461-469.	0.8	66
23	Expression Profiles of mRNAs for Osteoblast and Osteoclast Proteins as Indicators of Bone Loss in Mouse Immobilization Osteopenia Model. <i>Journal of Bone and Mineral Research</i> , 1999, 14, 1934-1942.	3.1	62
24	Cathepsin expression during skeletal development. <i>Biochimica Et Biophysica Acta Gene Regulatory Mechanisms</i> , 1999, 1446, 35-46.	2.4	60
25	Efficacy of Ciprofloxacin-Releasing Bioabsorbable Osteoconductive Bone Defect Filler for Treatment of Experimental Osteomyelitis Due to Staphylococcus aureus. <i>Antimicrobial Agents and Chemotherapy</i> , 2005, 49, 1502-1508.	1.4	57
26	Comparative 18F-FDG PET of experimental Staphylococcus aureus osteomyelitis and normal bone healing. <i>Journal of Nuclear Medicine</i> , 2004, 45, 1406-11.	2.8	56
27	Characterization of microrough bioactive glass surface: Surface reactions and osteoblast responses in vitro. <i>Journal of Biomedical Materials Research Part B</i> , 2002, 62, 404-411.	3.0	55
28	A 6-months, randomised, placebo-controlled evaluation of efficacy and tolerability of a low-dose 7-day buprenorphine transdermal patch in osteoarthritis patients naïve to potent opioids. <i>Scandinavian Journal of Pain</i> , 2010, 1, 122-141.	0.5	55
29	A controlled register-based study of 460 neurofibromatosis 1 patients: Increased fracture risk in children and adults over 41 years of age. <i>Journal of Bone and Mineral Research</i> , 2012, 27, 2333-2337.	3.1	55
30	Changes in intramuscular collagen and fibronectin in denervation atrophy. <i>Muscle and Nerve</i> , 1985, 8, 125-131.	1.0	54
31	Molecular profiling of human chondrosarcomas for matrix production and cancer markers. <i>International Journal of Cancer</i> , 2002, 100, 144-151.	2.3	54
32	Bone bank service in Finland: Experience of bacteriologic, serologic and clinical results of the Turku Bone Bank 1972-1995. <i>Acta Orthopaedica</i> , 1998, 69, 559-565.	1.4	51
33	Increased migration of uncemented acetabular cups in female total hip arthroplasty patients with low systemic bone mineral density. <i>Monthly Notices of the Royal Astronomical Society: Letters</i> , 2016, 87, 48-54.	1.2	51
34	Effect of nerve injury on fracture healing: Callus formation studied in the rat. <i>Acta Orthopaedica</i> , 1985, 56, 233-237.	1.4	50
35	68Ga-DOTAVAP-P1 PET imaging capable of demonstrating the phase of inflammation in healing bones and the progress of infection in osteomyelitic bones. <i>European Journal of Nuclear Medicine and Molecular Imaging</i> , 2008, 35, 352-364.	3.3	47
36	Healing Patterns of Transverse and Oblique Osteotomies in the Canine Tibia Under External Fixation. <i>Journal of Orthopaedic Trauma</i> , 1991, 5, 351-364.	0.7	46

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37	Biologic tendon fixation to metallic implant augmented with autogenous cancellous bone graft and bone marrow in a canine model. <i>Journal of Orthopaedic Research</i> , 2002, 20, 957-966.	1.2	46
38	No improvement in the overall survival of 194 patients with chondrosarcoma in Finland in 1971â€“1990. <i>Acta Orthopaedica</i> , 2003, 74, 344-350.	1.4	46
39	Instrumented Spondylodesis in Degenerative Spondylolisthesis With Bioactive Glass and Autologous Bone. <i>Journal of Spinal Disorders and Techniques</i> , 2011, 24, 455-461.	1.8	46
40	Biologic significance of surface microroughing in bone incorporation of porous bioactive glass implants. <i>Journal of Biomedical Materials Research - Part A</i> , 2003, 67A, 496-503.	2.1	44
41	Polysaccharide-Coated Thermosets for Orthopedic Applications: From Material Characterization to In Vivo Tests. <i>Biomacromolecules</i> , 2012, 13, 1564-1572.	2.6	43
42	Transient 100â€‰nM Dexamethasone Treatment Reduces Inter- and Intraindividual Variations in Osteoblastic Differentiation of Bone Marrow-Derived Human Mesenchymal Stem Cells. <i>Tissue Engineering - Part C: Methods</i> , 2012, 18, 658-666.	1.1	39
43	Quality of intertrochanteric cancellous bone as predictor of femoral stem RSA migration in cementless total hip arthroplasty. <i>Journal of Biomechanics</i> , 2011, 44, 221-227.	0.9	38
44	Differential expression of fibrillar collagen genes during callus formation. <i>Biochemical and Biophysical Research Communications</i> , 1987, 142, 536-541.	1.0	36
45	Influence of fluid circulation on in vitro reactivity of bioactive glass particles. <i>Materials Chemistry and Physics</i> , 2008, 111, 497-502.	2.0	36
46	Molecular Biological Evaluation of Bioactive Glass Microspheres and Adjunct Bone Morphogenetic Protein 2 Gene Transfer in the Enhancement of New Bone Formation. <i>Tissue Engineering</i> , 2005, 11, 387-394.	4.9	35
47	Accuracy and precision of radiostereometric analysis in the measurement of three-dimensional micromotion in a fracture model of the distal radius. <i>Journal of Orthopaedic Research</i> , 2005, 23, 481-488.	1.2	34
48	Sustained release of ciprofloxacin from an osteoconductive poly(DL)-lactide implant. <i>Monthly Notices of the Royal Astronomical Society: Letters</i> , 2008, 79, 295-301.	1.2	34
49	Internal remodeling of periosteal new bone during fracture healing. <i>Journal of Orthopaedic Research</i> , 1990, 8, 238-246.	1.2	32
50	Mechanical verification of soft-tissue attachment on bioactive glasses and titanium implants. <i>Acta Biomaterialia</i> , 2008, 4, 1118-1122.	4.1	31
51	Retarded chondrogenesis in transgenic mice with a type II collagen defect results in fracture healing abnormalities. <i>Developmental Dynamics</i> , 1994, 200, 340-349.	0.8	30
52	In vitro and in vivo testing of bioabsorbable antibiotic containing bone filler for osteomyelitis treatment. <i>Journal of Biomedical Materials Research - Part A</i> , 2006, 78A, 532-540.	2.1	30
53	Comparison of the osteogenic capacity of minipig and human bone marrowâ€“derived mesenchymal stem cells. <i>Journal of Orthopaedic Research</i> , 2012, 30, 1019-1025.	1.2	30
54	Mechanical properties and in vivo performance of load-bearing fiber-reinforced composite intramedullary nails with improved torsional strength. <i>Journal of the Mechanical Behavior of Biomedical Materials</i> , 2014, 40, 127-139.	1.5	30

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55	Cysteine proteinases in chondrosarcomas. <i>Matrix Biology</i> , 2001, 19, 717-725.	1.5	29
56	Effect of zoledronic acid on incorporation of a bioceramic bone graft substitute. <i>Bone</i> , 2006, 38, 432-443.	1.4	28
57	A comparative 18F-FDG PET/CT imaging of experimental <i>Staphylococcus aureus</i> osteomyelitis and <i>Staphylococcus epidermidis</i> foreign-body-associated infection in the rabbit tibia. <i>EJNMMI Research</i> , 2012, 2, 41.	1.1	28
58	Effect of Denosumab on Femoral Periprosthetic BMD and Early Femoral Stem Subsidence in Postmenopausal Women Undergoing Cementless Total Hip Arthroplasty. <i>JBMR Plus</i> , 2019, 3, e10217.	1.3	27
59	Macrophages in trauma-induced myositis ossificans. <i>Apmis</i> , 1991, 99, 482-486.	0.9	26
60	Combined effect of BMP-2 gene transfer and bioactive glass microspheres on enhancement of new bone formation. <i>Journal of Biomedical Materials Research - Part A</i> , 2005, 75A, 501-509.	2.1	26
61	Induction of periosteal callus formation by bone morphogenetic protein-2 employing adenovirus-mediated gene delivery. <i>Matrix Biology</i> , 2001, 20, 123-127.	1.5	25
62	Creation of microrough surface on sintered bioactive glass microspheres. <i>Journal of Biomedical Materials Research Part B</i> , 2001, 56, 282-288.	3.0	25
63	A long-lasting bisphosphonate partially protects periprosthetic bone, but does not enhance initial stability of uncemented femoral stems: A randomized placebo-controlled trial of women undergoing total hip arthroplasty. <i>Journal of Biomechanics</i> , 2018, 75, 35-45.	0.9	25
64	No improvement in the overall survival of 194 patients with chondrosarcoma in Finland in 1971-1990. <i>Acta Orthopaedica</i> , 2003, 74, 344-350.	1.4	24
65	Good stability of a cementless, anatomically designed femoral stem in aging women: a 9-year RSA study of 32 patients. <i>Monthly Notices of the Royal Astronomical Society: Letters</i> , 2018, 89, 490-495.	1.2	23
66	Precision measurements of the RSA method using a phantom model of hip prosthesis. <i>Journal of Biomechanics</i> , 2004, 37, 487-493.	0.9	22
67	⁶⁸ Ga-DOTA-Siglec-9 PET/CT imaging of peri-implant tissue responses and staphylococcal infections. <i>EJNMMI Research</i> , 2014, 4, 45.	1.1	21
68	Bone formation in experimental myositis ossificans. <i>Apmis</i> , 1988, 96, 933-940.	0.9	20
69	Radio-opaque bioactive glass markers for radiostereometric analysis. <i>Acta Biomaterialia</i> , 2009, 5, 3497-3505.	4.1	19
70	Osteoclasts derived from patients with neurofibromatosis 1 (NF1) display insensitivity to bisphosphonates in vitro. <i>Bone</i> , 2012, 50, 798-803.	1.4	18
71	Osteointegration of PLGA implants with nanostructured or micro-sized β -TCP particles in a minipig model. <i>Journal of the Mechanical Behavior of Biomedical Materials</i> , 2014, 40, 190-200.	1.5	17
72	Is Model-based Radiostereometric Analysis Suitable for Clinical Trials of a Cementless Tapered Wedge Femoral Stem?. <i>Clinical Orthopaedics and Related Research</i> , 2016, 474, 2246-2253.	0.7	16

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73	Bone Mineral Density and Cortical-Bone Thickness of the Distal Radius Predict Femoral Stem Subsidence in Postmenopausal Women. <i>Journal of Arthroplasty</i> , 2020, 35, 1877-1884.e1.	1.5	16
74	Healing of microvascular free skin flaps in irradiated recipient tissue beds. <i>American Journal of Surgery</i> , 1992, 164, 662-666.	0.9	14
75	In vivo testing of a biodegradable woven fabric made of bioactive glass fibers and PLGA _{80/20} – A pilot study in the rabbit. <i>Journal of Biomedical Materials Research - Part B Applied Biomaterials</i> , 2010, 93B, 573-580.	1.6	14
76	30 years of bone banking at Turku bone bank. <i>Cell and Tissue Banking</i> , 2003, 4, 43-48.	0.5	13
77	Peripheral quantitative computed tomography in evaluation of bioactive glass incorporation with bone. <i>Biomaterials</i> , 2005, 26, 6693-6703.	5.7	13
78	Porous bone implants. <i>Ceramics International</i> , 2000, 26, 897-900.	2.3	12
79	A Comparative ⁶⁸ Ga-Citrate and ⁶⁸ Ga-Chloride PET/CT Imaging of <i>Staphylococcus aureus</i> Osteomyelitis in the Rat Tibia. <i>Contrast Media and Molecular Imaging</i> , 2018, 2018, 1-10.	0.4	12
80	Production of cartilage collagens during metaphyseal bone healing in the mouse. <i>Matrix Biology</i> , 1998, 17, 317-320.	1.5	10
81	Incorporation of cortical bone allografts and autografts in rats: Expression patterns of mRNAs for the TGF-Bs. <i>Acta Orthopaedica</i> , 1998, 69, 537-544.	1.4	10
82	Expression of ezrin, Bcl-2, and Ki-67 in chondrosarcomas. <i>Apmis</i> , 2010, 118, 769-776.	0.9	10
83	Bioactive glass microspheres as osteopromotive inlays in macrot textured surfaces of Ti and CoCr alloy bone implants: Trapezoidal surface grooves without inlay most efficient in resisting torsional forces. <i>Journal of the Mechanical Behavior of Biomedical Materials</i> , 2011, 4, 1483-1491.	1.5	10
84	Characterization of porous glass fiber-reinforced composite (FRC) implant structures: porosity and mechanical properties. <i>Journal of Materials Science: Materials in Medicine</i> , 2013, 24, 2683-2693.	1.7	10
85	Quantitative characterization of porous commercial and experimental bone graft substitutes with microcomputed tomography. <i>Journal of Biomedical Materials Research - Part B Applied Biomaterials</i> , 2013, 101, 1538-1548.	1.6	10
86	Intensity of 18F-FDG PET Uptake in Culture-Negative and Culture-Positive Cases of Chronic Osteomyelitis. <i>Contrast Media and Molecular Imaging</i> , 2017, 2017, 1-9.	0.4	10
87	Contributing factors to the initial femoral stem migration in cementless total hip arthroplasty of postmenopausal women. <i>Journal of Biomechanics</i> , 2021, 117, 110262.	0.9	10
88	PET imaging of blood flow and glucose metabolism in localized musculoskeletal tumors of the extremities. <i>Nuclear Medicine and Biology</i> , 2011, 38, 295-300.	0.3	9
89	<i>In Vivo</i> and <i>In Vitro</i> Study of a Polylactide-Fiber-Reinforced β -Tricalcium Phosphate Composite Cage in an Ovine Anterior Cervical Intercorporeal Fusion Model. <i>International Journal of Biomaterials</i> , 2011, 2011, 1-11.	1.1	9
90	Radiostereometric Analysis in Measurements of Migration and Inducible Micromotion in Intra-Articular Distal Radius Fractures Treated With a Volar Plate. <i>Journal of Orthopaedic Trauma</i> , 2012, 26, e153-e160.	0.7	9

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91	Radiostereometric analysis of the initial stability of internally fixed femoral neck fractures under differential loading. <i>Journal of Orthopaedic Research</i> , 2019, 37, 239-247.	1.2	9
92	Complete genomic structure of the mouse cathepsin K gene (Ctsk) and its localization next to the Arnt gene on mouse chromosome 3. <i>Matrix Biology</i> , 1999, 18, 155-161.	1.5	8
93	Volumetric Bone Mineral Density in Cementless Total Hip Arthroplasty in Postmenopausal Women. <i>Journal of Bone and Joint Surgery - Series A</i> , 2021, 103, 1072-1082.	1.4	8
94	Adherence of hip and knee arthroplasty studies to RSA standardization guidelines. <i>Monthly Notices of the Royal Astronomical Society: Letters</i> , 2014, 85, 447-455.	1.2	7
95	¹⁸ F-NaF PET/CT to detect adverse reactions to metal debris in patients with metal-on-metal hip arthroplasty: an exploratory prospective study. <i>Clinical Physiology and Functional Imaging</i> , 2018, 38, 847-855.	0.5	7
96	Three-dimensional computer simulation of radiostereometric analysis (RSA) in distal radius fractures. <i>Journal of Biomechanics</i> , 2007, 40, 1855-1861.	0.9	5
97	In vitro osteogenic capacity of bone marrow MSCs from postmenopausal women reflect the osseointegration of their cementless hip stems. <i>Bone Reports</i> , 2016, 5, 124-135.	0.2	4
98	Comparison of Three Methods in Evaluation of Bone Ingrowth into Porous Bioactive Glass and Titanium Implants. <i>Key Engineering Materials</i> , 2001, 192-195, 613-616.	0.4	3
99	CORR Insights®: The Effect of Surgical Technique and Spacer Texture on Bone Regeneration: A Caprine Study Using the Masquelet Technique. <i>Clinical Orthopaedics and Related Research</i> , 2017, 475, 2586-2587.	0.7	3
100	Bioactive glass granules versus standard autologous and allogeneic bone grafts: a randomized trial of 49 adult bone tumor patients with a 10-year follow-up. <i>Monthly Notices of the Royal Astronomical Society: Letters</i> , 0, 93, 519-527.	1.2	3
101	Bone quality makes a difference. <i>Monthly Notices of the Royal Astronomical Society: Letters</i> , 2021, 92, 503-504.	1.2	2
102	Analysis of Trabecular Bone Microstructure Using Contour Tree Connectivity. <i>Lecture Notes in Computer Science</i> , 2013, 16, 428-435.	1.0	2
103	Denosumab in Cementless Total Hip Arthroplasty: Multivariate Reanalysis of ³ D Femoral Stem Migration and the Influence on Outliers. <i>JBMR Plus</i> , 2022, 6, e10588.	1.3	2
104	Bone Marrow and Subcutaneous Oxygen and Carbon Dioxide in the Radiated Rabbit Limb. <i>Acta Oto-Laryngologica</i> , 1982, 93, 287-290.	0.3	1
105	Local delivery of a selective androgen receptor modulator failed as an anabolic agent in a rat bone marrow ablation model. <i>Monthly Notices of the Royal Astronomical Society: Letters</i> , 2015, 86, 751-9.	1.2	1
106	Bioceramic inlays do not improve mechanical incorporation of grit-blasted titanium stems in the proximal sheep femur. <i>Journal of Biomedical Materials Research - Part A</i> , 2010, 92A, 1578-1586.	2.1	0
107	Female patients with low systemic BMD. <i>Monthly Notices of the Royal Astronomical Society: Letters</i> , 2010, 81, 768-769.	1.2	0
108	RSA of the Symax hip stem. <i>Monthly Notices of the Royal Astronomical Society: Letters</i> , 2020, 91, 497-499.	1.2	0

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109	Denosumab in Prevention of Implant Migration. Journal of Bone and Mineral Research, 2020, 35, 1824-1825.	3.1	0
110	The potential use of denosumab in patients with arthroplasty. Lancet Rheumatology, The, 2021, 3, e165-e166.	2.2	0