Mikko A J Finnil

List of Publications by Year in Descending Order

78 papers	1,057 citations	19 h-index	29 g-index
87 ext. papers	1,403 ext. citations	3.9 avg, IF	4.35 L-index

#	Paper	IF	Citations
78	Changes in subchondral bone structure and mechanical properties do not substantially affect cartilage mechanical responses - A finite element study.. *Journal of the Mechanical Behavior of Biomedical Materials*, **2022**, 128, 105129	4.1	0
77	Preparation of filter by alkali activation of blast furnace slag and its application for dye removal. *Journal of Environmental Chemical Engineering*, **2022**, 10, 107051	6.8	1
76	Near infrared spectroscopic evaluation of biochemical and crimp properties of knee joint ligaments and patellar tendon.. *PLoS ONE*, **2022**, 17, e0263280	3.7	
75	Subchondral bone plate thickness is associated with micromechanical and microstructural changes in the bovine patella osteochondral junction with different levels of cartilage degeneration.. *Journal of the Mechanical Behavior of Biomedical Materials*, **2022**, 129, 105158	4.1	0
74	Early changes in osteochondral tissues in a rabbit model of post-traumatic osteoarthritis. *Journal of Orthopaedic Research*, **2021**, 39, 2556-2567	3.8	2
73	Automated analysis of rabbit knee calcified cartilage morphology using micro-computed tomography and deep learning. *Journal of Anatomy*, **2021**, 239, 251-263	2.9	2
72	A single intra-articular dose of vitamin D analog calcipotriol alleviates synovitis without adverse effects in rats. *PLoS ONE*, **2021**, 16, e0250352	3.7	0
71	Endocrine, metabolic and apical effects of in utero and lactational exposure to non-dioxin-like 2,2Ỳ3,4,4Ỳ5,5Ỳheptachlorobiphenyl (PCB 180): A postnatal follow-up study in rats. *Reproductive Toxicology*, **2021**, 102, 109-127	3.4	3
70	Biomechanical, biochemical, and near infrared spectral data of bovine knee ligaments and patellar tendon. *Data in Brief*, **2021**, 36, 106976	1.2	1
69	Comparison of material models for anterior cruciate ligament in tension: from poroelastic to a novel fibril-reinforced nonlinear composite model. *Journal of Biomechanics*, **2021**, 114, 110141	2.9	3
68	Design and development of poly-L/D-lactide copolymer and barium titanate nanoparticle 3D composite scaffolds using breath figure method for tissue engineering applications. *Colloids and Surfaces B: Biointerfaces*, **2021**, 199, 111530	6	4
67	Mineralization of dental tissues and caries lesions detailed with Raman microspectroscopic imaging. *Analyst, The*, **2021**, 146, 1705-1713	5	7
66	Integrin ß1ß1 is a receptor for collagen XIII. *Cell and Tissue Research*, **2021**, 383, 1135-1153	4.2	3
65	Structure, composition and fibril-reinforced poroviscoelastic properties of bovine knee ligaments and patellar tendon. *Journal of the Royal Society Interface*, **2021**, 18, 20200737	4.1	2
64	High-resolution infrared microspectroscopic characterization of cartilage cell microenvironment. *Acta Biomaterialia*, **2021**, 134, 252-260	10.8	0
63	Synthesis and characterization of porous ceramics from spodumene tailings and waste glass wool. *Ceramics International*, **2021**, 47, 33286-33286	5.1	2
62	Elastic, Dynamic Viscoelastic and Model-Derived Fibril-Reinforced Poroelastic Mechanical Properties of Normal and Osteoarthritic Human Femoral Condyle Cartilage. *Annals of Biomedical Engineering*, **2021**, 49, 2622-2634	4.7	1

61	Bone toxicity induced by 2,3,7,8-tetrachlorodibenzo-p-dioxin (TCDD) and the retinoid system: A causality analysis anchored in osteoblast gene expression and mouse data. *Reproductive Toxicology*, **2021**, 105, 25-43	3.4	3
60	Ag- or Cu-modified geopolymer filters for water treatment manufactured by 3D printing, direct foaming, or granulation. *Scientific Reports*, **2020**, 10, 7233	4.9	22
59	Bright ultrashort echo time SWIFT MRI signal at the osteochondral junction is not located in the calcified cartilage. *Journal of Orthopaedic Research*, **2020**, 38, 2649-2656	3.8	2
58	Machine Learning Classification of Articular Cartilage Integrity Using Near Infrared Spectroscopy. *Cellular and Molecular Bioengineering*, **2020**, 13, 219-228	3.9	12
57	Raman microspectroscopic analysis of the tissue-specific composition of the human osteochondral junction in osteoarthritis: A pilot study. *Acta Biomaterialia*, **2020**, 106, 145-155	10.8	12
56	Lack of collagen XVIII leads to lipodystrophy and perturbs hepatic glucose and lipid homeostasis. *Journal of Physiology*, **2020**, 598, 3373-3393	3.9	8
55	Deep-Learning for Tidemark Segmentation in Human Osteochondral Tissues Imaged with Micro-computed Tomography. *Lecture Notes in Computer Science*, **2020**, 131-138	0.9	3
54	Comparison of water, hydroxyproline, uronic acid and elastin contents of bovine knee ligaments and patellar tendon and their relationships with biomechanical properties. *Journal of the Mechanical Behavior of Biomedical Materials*, **2020**, 104, 103639	4.1	6
53	Automating three-dimensional osteoarthritis histopathological grading of human osteochondral tissue using machine learning on contrast-enhanced micro-computed tomography. *Osteoarthritis and Cartilage*, **2020**, 28, 1133-1144	6.2	5
52	Anterior cruciate ligament transection of rabbits alters composition, structure and biomechanics of articular cartilage and chondrocyte deformation 2 weeks post-surgery in a site-specific manner. *Journal of Biomechanics*, **2020**, 98, 109450	2.9	11
51	Structure-Function Relationships of Healthy and Osteoarthritic Human Tibial Cartilage: Experimental and Numerical Investigation. *Annals of Biomedical Engineering*, **2020**, 48, 2887-2900	4.7	10
50	Quantifying Subresolution 3D Morphology of Bone with Clinical Computed Tomography. *Annals of Biomedical Engineering*, **2020**, 48, 595-605	4.7	4
49	Chemical imaging of human teeth by a time-resolved Raman spectrometer based on a CMOS single-photon avalanche diode line sensor. *Analyst, The*, **2019**, 144, 6089-6097	5	12
48	Elastic, Viscoelastic and Fibril-Reinforced Poroelastic Material Properties of Healthy and Osteoarthritic Human Tibial Cartilage. *Annals of Biomedical Engineering*, **2019**, 47, 953-966	4.7	17
47	Anterior cruciate ligament transection alters the n-3/n-6 fatty acid balance in the lapine infrapatellar fat pad. *Lipids in Health and Disease*, **2019**, 18, 67	4.4	10
46	Quantifying Complex Micro-Topography of Degenerated Articular Cartilage Surface by Contrast-Enhanced Micro-Computed Tomography and Parametric Analyses. *Journal of Orthopaedic Research*, **2019**, 37, 855-866	3.8	4
45	Three-dimensional microstructure of human meniscus posterior horn in health and osteoarthritis. *Osteoarthritis and Cartilage*, **2019**, 27, 1790-1799	6.2	6
44	Histochemical quantification of collagen content in articular cartilage. *PLoS ONE*, **2019**, 14, e0224839	3.7	19

43	Recent advances in understanding the phenotypes of osteoarthritis. *F1000Research*, **2019**, 8,	3.6	45
42	Experimental mechanical strain measurement of tissues. *PeerJ*, **2019**, 7, e6545	3.1	8
41	Localized delivery of compounds into articular cartilage by using high-intensity focused ultrasound. *Scientific Reports*, **2019**, 9, 15937	4.9	1
40	3D morphometric analysis of calcified cartilage properties using micro-computed tomography. *Osteoarthritis and Cartilage*, **2019**, 27, 172-180	6.2	10
39	Biodegradation of inorganic drug delivery systems in subcutaneous conditions. *European Journal of Pharmaceutics and Biopharmaceutics*, **2018**, 122, 113-125	5.7	7
38	Site-specific glycosaminoglycan content is better maintained in the pericellular matrix than the extracellular matrix in early post-traumatic osteoarthritis. *PLoS ONE*, **2018**, 13, e0196203	3.7	14
37	Osteogenic Differentiation of Human Mesenchymal Stem cells in a 3D Woven Scaffold. *Scientific Reports*, **2018**, 8, 10457	4.9	54
36	Composition, structure and tensile biomechanical properties of equine articular cartilage during growth and maturation. *Scientific Reports*, **2018**, 8, 11357	4.9	20
35	Deep Learning Classification of Cartilage Integrity Using Near Infrared Spectroscopy **2018**,		2
34	Early arthritis induces disturbances at bone nanostructural level reflected in decreased tissue hardness in an animal model of arthritis. *PLoS ONE*, **2018**, 13, e0190920	3.7	7
33	Volumetric Assessment of Bone Microstructures by a 3D Local Binary Patterns Based Method: Bone Changes with Osteoarthritis. *IFMBE Proceedings*, **2018**, 900-903	0.2	1
32	Effects of tofacitinib in early arthritis-induced bone loss in an adjuvant-induced arthritis rat model. *Rheumatology*, **2018**, 57, 1461-1471	3.9	20
31	Delivery of Agents Into Articular Cartilage With Electric Spark-Induced Sound Waves. *Frontiers in Physics*, **2018**, 6,	3.9	1
30	Iterative and discrete reconstruction in the evaluation of the rabbit model of osteoarthritis. *Scientific Reports*, **2018**, 8, 12051	4.9	4
29	In vitro method for 3D morphometry of human articular cartilage chondrons based on micro-computed tomography. *Osteoarthritis and Cartilage*, **2018**, 26, 1118-1126	6.2	9
28	Raccoon dog model shows preservation of bone during prolonged catabolism and reduced physical activity. *Journal of Experimental Biology*, **2017**, 220, 2196-2202	3	2
27	Genetic modifications of Mecr reveal a role for mitochondrial 2-enoyl-CoA/ACP reductase in placental development in mice. *Human Molecular Genetics*, **2017**, 26, 2104-2117	5.6	15
26	Effect of celastrol on bone structure and mechanics in arthritic rats. *RMD Open*, **2017**, 3, e000438	5.9	18

25	Skeletal and dental effects on rats following in utero/lactational exposure to the non-dioxin-like polychlorinated biphenyl PCB 180. *PLoS ONE*, **2017**, 12, e0185241	3.7	11
24	Subchondral bone histology and grading in osteoarthritis. *PLoS ONE*, **2017**, 12, e0173726	3.7	53
23	Correlations of low-field NMR and variable-field NMR parameters with osteoarthritis in human articular cartilage under load. *NMR in Biomedicine*, **2017**, 30, e3738	4.4	5
22	Association between subchondral bone structure and osteoarthritis histopathological grade. *Journal of Orthopaedic Research*, **2017**, 35, 785-792	3.8	56
21	Effects of Articular Cartilage Constituents on Phosphotungstic Acid Enhanced Micro-Computed Tomography. *PLoS ONE*, **2017**, 12, e0171075	3.7	20
20	Imaging of Osteoarthritic Human Articular Cartilage using Fourier Transform Infrared Microspectroscopy Combined with Multivariate and Univariate Analysis. *Scientific Reports*, **2016**, 6, 30008	4.9	23
19	Correlation of Subchondral Bone Density and Structure from Plain Radiographs with Micro Computed Tomography Ex Vivo. *Annals of Biomedical Engineering*, **2016**, 44, 1698-709	4.7	17
18	Micro-CT Analysis of Bone Healing in Rabbit Calvarial Critical-Sized Defects with Solid Bioactive Glass, Tricalcium Phosphate Granules or Autogenous Bone. *Journal of Oral & Maxillofacial Research*, **2016**, 7, e4	2.1	13
17	Effects of developmental exposure to perfluorooctanoic acid (PFOA) on long bone morphology and bone cell differentiation. *Toxicology and Applied Pharmacology*, **2016**, 301, 14-21	4.6	42
16	Physiological condition of bank voles (Myodes glareolus) during the increase and decline phases of the population cycle. *Comparative Biochemistry and Physiology Part A, Molecular & Integrative Physiology*, **2015**, 187, 141-9	2.6	2
15	Multiparametric MRI assessment of human articular cartilage degeneration: Correlation with quantitative histology and mechanical properties. *Magnetic Resonance in Medicine*, **2015**, 74, 249-259	4.4	45
14	Overexpression of spermidine/spermine N1-acetyltransferase impairs osteoblastogenesis and alters mouse bone phenotype. *Transgenic Research*, **2015**, 24, 253-65	3.3	6
13	Severe Extracellular Matrix Abnormalities and Chondrodysplasia in Mice Lacking Collagen Prolyl 4-Hydroxylase Isoenzyme II in Combination with a Reduced Amount of Isoenzyme I. *Journal of Biological Chemistry*, **2015**, 290, 16964-78	5.4	29
12	Determining collagen distribution in articular cartilage using contrast-enhanced micro-computed tomography. *Osteoarthritis and Cartilage*, **2015**, 23, 1613-21	6.2	46
11	Local Binary Patterns to Evaluate Trabecular Bone Structure from Micro-CT Data: Application to Studies of Human Osteoarthritis. *Lecture Notes in Computer Science*, **2015**, 63-79	0.9	4
10	Toxicological profile of ultrapure 2,2∀3,4,4∀5,5∀heptachlorbiphenyl (PCB 180) in adult rats. *PLoS ONE*, **2014**, 9, e104639	3.7	22
9	The effect of fatty acid positioning in dietary triacylglycerols and intake of long-chain n-3 polyunsaturated fatty acids on bone mineral accretion in growing piglets. *Prostaglandins Leukotrienes and Essential Fatty Acids*, **2013**, 89, 235-40	2.8	5
8	New insights to the role of aryl hydrocarbon receptor in bone phenotype and in dioxin-induced modulation of bone microarchitecture and material properties. *Toxicology and Applied Pharmacology*, **2013**, 273, 219-26	4.6	28

7	Trabecular homogeneity index derived from plain radiograph to evaluate bone quality. *Journal of Bone and Mineral Research*, **2013**, 28, 2584-91	6.3	14
6	Preservation of bone mass and biomechanical properties during winter sleep--the raccoon dog (Nyctereutes procyonoides) as a novel model species. *Bone*, **2011**, 48, 878-84	4.7	4
5	PHOSPHO1 is essential for mechanically competent mineralization and the avoidance of spontaneous fractures. *Bone*, **2011**, 48, 1066-74	4.7	56
4	In utero and lactational exposure to Aroclor 1254 affects bone geometry, mineral density and biomechanical properties of rat offspring. *Toxicology Letters*, **2011**, 207, 82-8	4.4	15
3	Effects of 2,3,7,8-tetrachlorodibenzo-p-dioxin exposure on bone material properties. *Journal of Biomechanics*, **2010**, 43, 1097-103	2.9	43
2	Long-term voluntary exercise of male mice induces more beneficial effects on cancellous and cortical bone than on the collagenous matrix. *Experimental Gerontology*, **2009**, 44, 708-17	4.5	21
1	Physical exercise improves properties of bone and its collagen network in growing and maturing mice. *Calcified Tissue International*, **2009**, 85, 247-56	3.9	38