Tannin A Schmidt

List of Publications by Year
in descending order

95 papers	4,862 citations	145106 33 h-index	124990 64 g-index
102 all docs	102 docs citations	102 times ranked	4468 citing authors

#	Article	IF	Citations
1	Synovial and cartilage responsiveness to periâ€operative hyaluronic acidâ€‰Â±â€‰dexamethasone administration following a limited injury to the rabbit stifle joint. Journal of Orthopaedic Research, 2022, 40, 838-845.	1.2	6
2	In vivo printing of growth factor-eluting adhesive scaffolds improves wound healing. Bioactive Materials, 2022, 8, 296-308.	8.6	66
3	Quadruped Gait and Regulation of Apoptotic Factors in Tibiofemoral Joints following Intra-Articular rhPRG4 Injection in Prg4 Null Mice. International Journal of Molecular Sciences, 2022, 23, 4245.	1.8	2
4	Novel Boundary Lubrication Mechanisms from Molecular Pillows of Lubricin Brush-Coated Graphene Oxide Nanosheets. Langmuir, 2022, 38, 5351-5360.	1.6	2
5	Proteoglycan 4 (PRG4) treatment enhances wound closure and tissue regeneration. Npj Regenerative Medicine, 2022, 7, .	2.5	8
6	Proteoglycan 4 is present within the dura mater and produced by mesenchymal progenitor cells. Cell and Tissue Research, 2022, 389, 483-499.	1.5	3
7	Automated Indentation Demonstrates Structural Stiffness of Femoral Articular Cartilage and Temporomandibular Joint Mandibular Condylar Cartilage Is Altered in FgF2KO Mice. Cartilage, 2021, 13, 1513S-1521S.	1.4	4
8	Proteoglycan-4 and hyaluronan composition in synovial fluid and serum from clinical equine subjects: relationship to cartilage boundary lubrication and viscosity of synovial fluid. Connective Tissue Research, 2021, 62, 369-380.	1.1	8
9	Effects of acidosis on the structure, composition, and function of adult murine femurs. Acta Biomaterialia, 2021, 121, 484-496.	4.1	10
10	Proteoglycan 4 Reduces Neuroinflammation and Protects the Bloodâ€“Brain Barrier after Traumatic Brain Injury. Journal of Neurotrauma, 2021, 38, 385-398.	1.7	11
11	Investigating the Synergistic Interactions of Surface Immobilized and Free Natural Ocular Lubricants for Contact Lens Applications: A Comparative Study between Hyaluronic Acid and Proteoglycan 4 (Lubricin). Langmuir, 2021, 37, 1062-1072.	1.6	15
12	The role of synovial fluid constituents in the lubrication of collagen-glycosaminoglycan scaffolds for cartilage repair. Journal of the Mechanical Behavior of Biomedical Materials, 2021, 118, 104445.	1.5	4
13	Proteoglycan 4 reduces friction more than other synovial fluid components for both cartilage-cartilage and cartilage-metal articulation. Osteoarthritis and Cartilage, 2021, 29, 894-904.	0.6	8
14	Proteoglycan 4 (PRG4) expression and function in dry eye associated inflammation. Experimental Eye Research, 2021, 208, 108628.	1.2	22
15	Proteoglycan-4 is an essential regulator of synovial macrophage polarization and inflammatory macrophage joint infiltration. Arthritis Research and Therapy, 2021, 23, 241.	1.6	18
16	Recombinant Human Proteoglycan 4 Regulates Phagocytic Activation of Monocytes and Reduces IL-1Î² Secretion by Urate Crystal Stimulated Gout PBMCs. Frontiers in Immunology, 2021, 12, 771677.	2.2	10
17	Proteomics Analysis of Tears and Saliva From Sjogrenâ€™s Syndrome Patients. Frontiers in Pharmacology, 2021, 12, 787193.	1.6	23
18	Localization of full-length recombinant human proteoglycan-4 in commercial contact lenses using confocal microscopy. Journal of Biomaterials Science, Polymer Edition, 2020, 31, 110-122.	1.9	2

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19	Lubricating lipids in hydrogels. Science, 2020, 370, 288-289.	6.0	8
20	Addition of High Molecular Weight Hyaluronic Acid to Fibroblast-Like Stromal Cells Modulates Endogenous Hyaluronic Acid Metabolism and Enhances Proteolytic Processing and Secretion of Versican. Cells, 2020, 9, 1681.	1.8	6
21	Proteoglycan-4 is correlated with longer survival in HCC patients and enhances sorafenib and regorafenib effectiveness via CD44 in vitro. Cell Death and Disease, 2020, 11, 984.	2.7	14
22	Recombinant Human Proteoglycan-4 Mediates Interleukin-6 Response in Both Human and Mouse Endothelial Cells Induced Into a Sepsis Phenotype. , 2020, 2, e0126.		4
23	Microneedle arrays for the treatment of chronic wounds. Expert Opinion on Drug Delivery, 2020, 17, 1767-1780.	2.4	70
24	Decrease of core 2 O-glycans on synovial lubricin in osteoarthritis reduces galectin-3 mediated crosslinking. Journal of Biological Chemistry, 2020, 295, 16023-16036.	1.6	7
25	Proteoglycan-4 regulates fibroblast to myofibroblast transition and expression of fibrotic genes in the synovium. Arthritis Research and Therapy, 2020, 22, 113.	1.6	29
26	Cathepsin g Degrades Both Glycosylated and Unglycosylated Regions of Lubricin, a Synovial Mucin. Scientific Reports, 2020, 10, 4215.	1.6	14
27	Inhibitory Effects of PRG4 on Migration and Proliferation of Human Venous Cells. Journal of Surgical Research, 2020, 253, 53-62.	0.8	3
28	The Effect of Intense Exercise on Equine Serum Proteoglycan-4/Lubricin. Frontiers in Veterinary Science, 2020, 7, 599287.	0.9	0
29	Recombinant human PRG4 (rhPRG4) suppresses breast cancer cell invasion by inhibiting TGFÎ²-Hyaluronan-CD44 signalling pathway. PLoS ONE, 2019, 14, e0219697.	1.1	27
30	Two compartment pharmacokinetic model describes the intraâ€articular delivery and retention of rhprg4 following ACL transection in the Yucatan mini pig. Journal of Orthopaedic Research, 2019, 37, 386-396.	1.2	14
31	Absence of Proteoglycan 4 (Prg4) Leads to Increased Subchondral Bone Porosity Which Can Be Mitigated Through Intraâ€Articular Injection of PRG4. Journal of Orthopaedic Research, 2019, 37, 2077-2088.	1.2	16
32	Interactions between Lubricin and Hyaluronic Acid Synergistically Enhance Antiadhesive Properties. ACS Applied Materials & Interfaces, 2019, 11, 18090-18102.	4.0	33
33	Investigating the effect of proteoglycan 4 on hyaluronan solution properties using confocal fluorescence recovery after photobleaching. BMC Musculoskeletal Disorders, 2019, 20, 93.	0.8	3
34	Proteoglycan 4: From Mere Lubricant to Regulator of Tissue Homeostasis and Inflammation. BioEssays, 2019, 41, e1800166.	1.2	49
35	Probing the Molecular Interactions and Lubrication Mechanisms of Purified Full-Length Recombinant Human Proteoglycan 4 (rhPRG4) and Hyaluronic Acid (HA). Biomacromolecules, 2019, 20, 1056-1067.	2.6	20
36	Lubricin/proteoglycan 4 detected in vocal folds of humans and five other mammals. Laryngoscope, 2019, 129, E229-E237.	1.1	2

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37	A competitive alphascreen assay for detection of hyaluronan. Glycobiology, 2018, 28, 137-147.	1.3	9
38	Nonâ€Newtonian rheology in suspension cell cultures significantly impacts bioreactor shear stress quantification. Biotechnology and Bioengineering, 2018, 115, 2101-2113.	1.7	23
39	Preclinical Animal Studies of Intravesical Recombinant Human Proteoglycan 4 as a Novel Potential Therapy for Diseases Resulting From Increased Bladder Permeability. Urology, 2018, 116, 230.e1-230.e7.	0.5	10
40	Proteoglycan 4 and hyaluronan as boundary lubricants for model contact lens hydrogels. Journal of Biomedical Materials Research - Part B Applied Biomaterials, 2018, 106, 1329-1338.	1.6	27
41	Mechanical Fatigue of Bovine Cortical Bone Using Ground Reaction Force Waveforms in Running. Journal of Biomechanical Engineering, 2018, 140, .	0.6	28
42	Hyaluronan incorporation into model contact lens hydrogels as a builtâ€in lubricant: Effect of hydrogel composition and proteoglycan 4 as a lubricant in solution. Journal of Biomedical Materials Research - Part B Applied Biomaterials, 2018, 106, 1818-1826.	1.6	17
43	Adherent agarose mold cultures: An in vitro platform for multiâ€factorial assessment of passaged chondrocyte redifferentiation. Journal of Orthopaedic Research, 2018, 36, 2392-2405.	1.2	11
44	Versican is differentially regulated in the adventitial and medial layers of human vein grafts. PLoS ONE, 2018, 13, e0204045.	1.1	4
45	Surface-Functionalized Model Contact Lenses with a Bioinspired Proteoglycan 4 (PRG4)-Grafted Layer. ACS Applied Materials & Interfaces, 2018, 10, 30125-30136.	4.0	28
46	Recombinant human proteoglycan-4 reduces phagocytosis of urate crystals and downstream nuclear factor kappa B and inflammasome activation and production of cytokines and chemokines in human and murine macrophages. Arthritis Research and Therapy, 2018, 20, 192.	1.6	40
47	Effect of counterface on cartilage boundary lubricating ability by proteoglycan 4 and hyaluronan: Cartilage-glass versus cartilage-cartilage. Journal of Orthopaedic Research, 2018, 36, 2923-2931.	1.2	11
48	Human pericardial proteoglycan 4 (lubricin): Implications for postcardiotomy intrathoracic adhesion formation. Journal of Thoracic and Cardiovascular Surgery, 2018, 156, 1598-1608.e1.	0.4	24
49	Cellular electrophysiological principles that modulate secretion from synovial fibroblasts. Journal of Physiology, 2017, 595, 635-645.	1.3	16
50	Reduction of friction by recombinant human proteoglycan 4 in ILâ€1Î± stimulated bovine cartilage explants. Journal of Orthopaedic Research, 2017, 35, 580-589.	1.2	14
51	An in vitro study of cartilageâ€“meniscus tribology to understand the changes caused by a meniscus implant. Colloids and Surfaces B: Biointerfaces, 2017, 155, 294-303.	2.5	31
52	The autocrine role of proteoglycan-4 (PRG4) in modulating osteoarthritic synoviocyte proliferation and expression of matrix degrading enzymes. Arthritis Research and Therapy, 2017, 19, 89.	1.6	68
53	Degradation of proteoglycan 4/lubricin by cathepsin S: Potential mechanism for diminished ocular surface lubrication in SjÃ¶gren's syndrome. Experimental Eye Research, 2017, 161, 1-9.	1.2	37
54	Intra-articular Recombinant Human Proteoglycan 4 Mitigates Cartilage Damage After Destabilization of the Medial Meniscus in the Yucatan Minipig. American Journal of Sports Medicine, 2017, 45, 1512-1521.	1.9	55

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55	Targeted delivery of hyaluronic acid to the ocular surface by a polymer-peptide conjugate system for dry eye disease. Acta Biomaterialia, 2017, 55, 163-171.	4.1	32
56	Recombinant human lubricin for prevention of postoperative intra-abdominal adhesions in a rat model. Journal of Surgical Research, 2017, 208, 20-25.	0.8	20
57	TFOS DEWS II Tear Film Report. Ocular Surface, 2017, 15, 366-403.	2.2	610
58	A Two-Week, Randomized, Double-masked Study to Evaluate Safety and Efficacy of Lubricin (150ÂÎ¼g/mL) Eye Drops Versus Sodium Hyaluronate (HA) 0.18% Eye Drops (VismedÂ®) in Patients with Moderate Dry Eye Disease. Ocular Surface, 2017, 15, 77-87.	2.2	73
59	Lubricin/Proteoglycan 4 binds to and regulates the activity of Toll-Like Receptors In Vitro. Scientific Reports, 2016, 6, 18910.	1.6	112
60	Rheological effects of macromolecular interactions in synovial fluid. Biorheology, 2016, 53, 49-67.	1.2	37
61	Effect of disulfide bonding and multimerization on proteoglycan 4â€™s cartilage boundary lubricating ability and adsorption. Connective Tissue Research, 2016, 57, 113-123.	1.1	19
62	Full-Length Recombinant Human Proteoglycan 4 Interacts with Hyaluronan to Provide Cartilage Boundary Lubrication. Annals of Biomedical Engineering, 2016, 44, 1128-1137.	1.3	45
63	Metabolic analysis of knee synovial fluid as a potential diagnostic approach for osteoarthritis. Journal of Orthopaedic Research, 2015, 33, 1631-1638.	1.2	80
64	Effects of concentration and structure on proteoglycan 4 rheology and interaction withÂhyaluronan. Biorheology, 2015, 51, 409-422.	1.2	14
65	Cartilage boundary lubrication synergism is mediated by hyaluronan concentration and PRG4 concentration and structure. BMC Musculoskeletal Disorders, 2015, 16, 386.	0.8	28
66	The interaction of lubricin/proteoglycan 4 (PRG4) with toll-like receptors 2 and 4: an anti-inflammatory role of PRG4 in synovial fluid. Arthritis Research and Therapy, 2015, 17, 353.	1.6	90
67	Viscoelastic Properties of Hyaluronan in Physiological Conditions. F1000Research, 2015, 4, 622.	0.8	198
68	Articular Joint Lubricants during Osteoarthritis and Rheumatoid Arthritis Display Altered Levels and Molecular Species. PLoS ONE, 2015, 10, e0125192.	1.1	126
69	Role of hydrophobicity on the adsorption of synovial fluid proteins and biolubrication of polycarbonate urethanes: Materials for permanent meniscus implants. Materials and Design, 2015, 83, 514-521.	3.3	17
70	Lubricin/Proteoglycan 4 Binding to CD44 Receptor: A Mechanism of the Suppression of Proinflammatory Cytokineâ€“Induced Synoviocyte Proliferation by Lubricin. Arthritis and Rheumatology, 2015, 67, 1503-1513.	2.9	102
71	Cartilage boundary lubrication of ovine synovial fluid following anterior cruciate ligament transection: a longitudinal study. Osteoarthritis and Cartilage, 2015, 23, 640-647.	0.6	16
72	The impact of early intra-articular administration of interleukin-1 receptor antagonist on lubricin metabolism and cartilage degeneration in an anterior cruciate ligament transection model. Osteoarthritis and Cartilage, 2015, 23, 114-121.	0.6	51

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73	Both Hyaluronan and Collagen Type II Keep Proteoglycan 4 (Lubricin) at the Cartilage Surface in a Condition That Provides Low Friction during Boundary Lubrication. Langmuir, 2014, 30, 14566-14572.	1.6	69
74	Characterization of full-length recombinant human Proteoglycan 4 as an ocular surface boundary lubricant. Experimental Eye Research, 2014, 127, 14-19.	1.2	78
75	Biochemical analyses of human osteoarthritic and periprosthetic synovial fluid. Proceedings of the Institution of Mechanical Engineers, Part H: Journal of Engineering in Medicine, 2014, 228, 127-139.	1.0	26
76	Transcription, Translation, and Function of Lubricin, a Boundary Lubricant, at the Ocular Surface. JAMA Ophthalmology, 2013, 131, 766.	1.4	101
77	Cartilage boundary lubricating ability of aldehyde modified proteoglycan 4Â(PRG4-CHO). Osteoarthritis and Cartilage, 2013, 21, 186-189.	0.6	10
78	Molecular weight characterization of PRG4 proteins using multi-angle laser light scattering (MALLS). Osteoarthritis and Cartilage, 2013, 21, 498-504.	0.6	34
79	Characterization of proteoglycan 4 and hyaluronan composition and lubrication function of ovine synovial fluid following knee surgery. Journal of Orthopaedic Research, 2013, 31, 1549-1554.	1.2	17
80	The TFOS International Workshop on Contact Lens Discomfort: Report of the Contact Lens Materials, Design, and Care Subcommittee. , 2013, 54, TFOS37.		173
81	Dose-Dependent and Synergistic Effects of Proteoglycan 4 on Boundary Lubrication at a Human Corneaâ€“Polydimethylsiloxane Biointerface. Eye and Contact Lens, 2012, 38, 27-35.	0.8	31
82	Diminished cartilageâ€lubricating ability of human osteoarthritic synovial fluid deficient in proteoglycan 4: Restoration through proteoglycan 4 supplementation. Arthritis and Rheumatism, 2012, 64, 3963-3971.	6.7	93
83	Effects of equine joint injury on boundary lubrication of articular cartilage by synovial fluid: Role of hyaluronan. Arthritis and Rheumatism, 2012, 64, 2917-2926.	6.7	52
84	The effect of molecular weight on hyaluronanâ€™s cartilage boundary lubricating ability â€“ alone and in combination with proteoglycan 4. Osteoarthritis and Cartilage, 2011, 19, 1356-1362.	0.6	77
85	Disulfide-bonded multimers of proteoglycan 4 (PRG4) are present in normal synovial fluids. Biochimica Et Biophysica Acta - General Subjects, 2009, 1790, 375-384.	1.1	48
86	Differential regulation of proteoglycan 4 metabolism in cartilage by IL-1Î±, IGF-I, and TGF-Î²1. Osteoarthritis and Cartilage, 2008, 16, 90-97.	0.6	79
87	Boundary lubrication of articular cartilage: Role of synovial fluid constituents. Arthritis and Rheumatism, 2007, 56, 882-891.	6.7	447
88	Effect of synovial fluid on boundary lubrication of articular cartilage. Osteoarthritis and Cartilage, 2007, 15, 35-47.	0.6	165
89	A model of synovial fluid lubricant composition in normal and injured joints. , 2007, 13, 26-39.		105
90	Dynamic shear stimulation of bovine cartilage biosynthesis of proteoglycan 4. Arthritis and Rheumatism, 2006, 54, 1888-1896.	6.7	107

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91	Static and dynamic compression regulate cartilage metabolism of PRoteoGlycan 4 (PRG4). Biorheology, 2006, 43, 191-200.	1.2	37
92	Proteoglycan 4 (PRG4) synthesis and immunolocalization in bovine meniscus. Journal of Orthopaedic Research, 2005, 23, 562-568.	1.2	92
93	Synthesis of proteoglycan 4 by chondrocyte subpopulations in cartilage explants, monolayer cultures, and resurfaced cartilage cultures. Arthritis and Rheumatism, 2004, 50, 2849-2857.	6.7	79
94	Tissue engineering of stratified articular cartilage from chondrocyte subpopulations. Osteoarthritis and Cartilage, 2003, 11, 595-602.	0.6	198
95	Integrin-mediated adhesion of human articular chondrocytes to cartilage. Arthritis and Rheumatism, 2003, 48, 110-118.	6.7	73