Gregory D Jay

List of Publications by Year in descending order

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94433 91884 5,334 105 37 69 citations g-index h-index papers 114 114 114 3421

docs citations times ranked citing authors all docs

#	Article	IF	CITATIONS
1	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.	4.1	2
2	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.	2.3	8
3	Proteoglycan 4 Reduces Neuroinflammation and Protects the Blood–Brain Barrier after Traumatic Brain Injury. Journal of Neurotrauma, 2021, 38, 385-398.	3.4	11
4	Recombinant Human Proteoglycanâ€4 Regulates Phagocytic Activation of Monocytes and Reduces ILâ€1b Secretion by Urate Crystal Stimulated PBMCs. FASEB Journal, 2021, 35, .	0.5	0
5	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.	3.1	4
6	Prediction of anemia and estimation of hemoglobin concentration using a smartphone camera. PLoS ONE, 2021, 16, e0253495.	2.5	20
7	Proteoglycan 4 (PRG4) expression and function in dry eye associated inflammation. Experimental Eye Research, 2021, 208, 108628.	2.6	22
8	Proteoglycan-4 is an essential regulator of synovial macrophage polarization and inflammatory macrophage joint infiltration. Arthritis Research and Therapy, 2021, 23, 241.	3.5	18
9	Efficient Detection of Severe Acute Respiratory SyndromeÂCoronavirus 2 (SARS-CoV-2) from Exhaled Breath. Journal of Molecular Diagnostics, 2021, 23, 1661-1670.	2.8	6
10	Titration of Parameters in Shared Ventilation With a Portable Ventilator. Respiratory Care, 2021, 66, 758-768.	1.6	5
11	Recombinant Human Proteoglycan 4 Regulates Phagocytic Activation of Monocytes and Reduces IL- $1\hat{l}^2$ Secretion by Urate Crystal Stimulated Gout PBMCs. Frontiers in Immunology, 2021, 12, 771677.	4.8	10
12	Proteomics Analysis of Tears and Saliva From Sjogren's Syndrome Patients. Frontiers in Pharmacology, 2021, 12, 787193.	3.5	23
13	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.	3.5	2
14	Lubricin as a Therapeutic and Potential Biomarker in Sepsis. Critical Care Clinics, 2020, 36, 55-67.	2.6	9
15	Recombinant Human Proteoglycan-4 Mediates Interleukin-6 Response in Both Human and Mouse Endothelial Cells Induced Into a Sepsis Phenotype. , 2020, 2, e0126.		4
16	Decrease of core 2 O-glycans on synovial lubricin in osteoarthritis reduces galectin-3 mediated crosslinking. Journal of Biological Chemistry, 2020, 295, 16023-16036.	3.4	7
17	Proteoglycan-4 regulates fibroblast to myofibroblast transition and expression of fibrotic genes in the synovium. Arthritis Research and Therapy, 2020, 22, 113.	3.5	29
18	Cathepsin g Degrades Both Glycosylated and Unglycosylated Regions of Lubricin, a Synovial Mucin. Scientific Reports, 2020, 10, 4215.	3.3	14

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19	The Effect of Intense Exercise on Equine Serum Proteoglycan-4/Lubricin. Frontiers in Veterinary Science, 2020, 7, 599287.	2.2	0
20	Recombinant human PRG4 (rhPRG4) suppresses breast cancer cell invasion by inhibiting TGFÎ ² -Hyaluronan-CD44 signalling pathway. PLoS ONE, 2019, 14, e0219697.	2.5	27
21	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.	2.3	14
22	Absence of Proteoglycan 4 (<i>Prg4</i>) Leads to Increased Subchondral Bone Porosity Which Can Be Mitigated Through Intraâ€Articular Injection of PRG4. Journal of Orthopaedic Research, 2019, 37, 2077-2088.	2.3	16
23	Interactions between Lubricin and Hyaluronic Acid Synergistically Enhance Antiadhesive Properties. ACS Applied Materials & Diterfaces, 2019, 11, 18090-18102.	8.0	33
24	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.	5.4	20
25	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.	1.0	10
26	Role of CD44 in Regulating TLR2 Activation of Human Macrophages and Downstream Expression of Proinflammatory Cytokines. Journal of Immunology, 2018, 200, 758-767.	0.8	53
27	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.	3.5	40
28	cAMP attenuates TGF-β's profibrotic responses in osteoarthritic synoviocytes: involvement of hyaluronan and PRG4. American Journal of Physiology - Cell Physiology, 2018, 315, C432-C443.	4.6	25
29	Reduction of friction by recombinant human proteoglycan 4 in ILâ€1α stimulated bovine cartilage explants. Journal of Orthopaedic Research, 2017, 35, 580-589.	2.3	14
30	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.	3.5	68
31	Degradation of proteoglycan 4/lubricin by cathepsin S: Potential mechanism for diminished ocular surface lubrication in SjA¶gren's syndrome. Experimental Eye Research, 2017, 161, 1-9.	2.6	37
32	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.	4.2	55
33	Recombinant human lubricin for prevention of postoperative intra-abdominal adhesions in a rat model. Journal of Surgical Research, 2017, 208, 20-25.	1.6	20
34	A Two-Week, Randomized, Double-masked Study to Evaluate Safety and Efficacy of Lubricin (150Âμg/mL) Eye Drops Versus Sodium Hyaluronate (HA) 0.18% Eye Drops (Vismed®) in Patients with Moderate Dry Eye Disease. Ocular Surface, 2017, 15, 77-87.	4.4	73
35	Friction-Induced Mitochondrial Dysregulation Contributes to Joint Deterioration in Prg4 Knockout Mice. International Journal of Molecular Sciences, 2017, 18, 1252.	4.1	28
36	Arthroscopic irrigation of the bovine stifle joint increases cartilage surface friction and decreases superficial zone lubricin. Journal of Biomechanics, 2016, 49, 3106-3110.	2.1	13

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37	Superficial zone cellularity is deficient in mice lacking lubricin: a stereoscopic analysis. Arthritis Research and Therapy, 2016, 18, 64.	3.5	22
38	Effects of lubricant and autologous bone marrow stromal cell augmentation on immobilized flexor tendon repairs. Journal of Orthopaedic Research, 2016, 34, 154-160.	2.3	17
39	Full-Length Recombinant Human Proteoglycan 4 Interacts with Hyaluronan to Provide Cartilage Boundary Lubrication. Annals of Biomedical Engineering, 2016, 44, 1128-1137.	2.5	45
40	Induced superficial chondrocyte death reduces catabolic cartilage damage in murine posttraumatic osteoarthritis. Journal of Clinical Investigation, 2016, 126, 2893-2902.	8.2	72
41	Effects of concentration and structure on proteoglycan 4 rheology and interaction withÂhyaluronan. Biorheology, 2015, 51, 409-422.	0.4	14
42	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.	3.5	90
43	Lubricin Restoration in a Mouse Model of Congenital Deficiency. Arthritis and Rheumatology, 2015, 67, 3070-3081.	5.6	26
44	Anti-Lubricin Monoclonal Antibodies Created Using Lubricin-Knockout Mice Immunodetect Lubricin in Several Species and in Patients with Healthy and Diseased Joints. PLoS ONE, 2015, 10, e0116237.	2.5	36
45	Surface Modification with Chemically Modified Synovial Fluid for Flexor Tendon Reconstruction in a Canine Model in Vivo. Journal of Bone and Joint Surgery - Series A, 2015, 97, 972-978.	3.0	12
46	Lubricin/Proteoglycan 4 Binding to CD44 Receptor: A Mechanism of the Suppression of Proinflammatory Cytokine–Induced Synoviocyte Proliferation by Lubricin. Arthritis and Rheumatology, 2015, 67, 1503-1513.	5.6	102
47	Lubricin deficiency in the murine lumbar intervertebral disc results in elevated torsional apparent modulus. Journal of Biomechanics, 2015, 48, 2210-2213.	2.1	9
48	Combined reflectance spectroscopy and stochastic modeling approach for noninvasive hemoglobin determination via palpebral conjunctiva. Physiological Reports, 2014, 2, e00192.	1.7	20
49	Effects of molecular weight of grafted hyaluronic acid on wear initiation. Acta Biomaterialia, 2014, 10, 1817-1823.	8.3	34
50	The biology of Lubricin: Near frictionless joint motion. Matrix Biology, 2014, 39, 17-24.	3.6	237
51	Interaction of lubricin with type II collagen surfaces: Adsorption, friction, and normal forces. Journal of Biomechanics, 2014, 47, 659-666.	2.1	40
52	Synergistic Interactions between Grafted Hyaluronic Acid and Lubricin Provide Enhanced Wear Protection and Lubrication. Biomacromolecules, 2013, 14, 1669-1677.	5.4	133
53	Role of lubricin and boundary lubrication in the prevention of chondrocyte apoptosis. Proceedings of the National Academy of Sciences of the United States of America, 2013, 110, 5852-5857.	7.1	187
54	The Effect of Lubricin on the Gliding Resistance of Mouse Intrasynovial Tendon. PLoS ONE, 2013, 8, e83836.	2.5	19

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55	Preventing Friction-induced Chondrocyte Apoptosis: Comparison of Human Synovial Fluid and Hylan G-F 20. Journal of Rheumatology, 2012, 39, 1473-1480.	2.0	27
56	Lubricin as a Novel Protein Coating to Prevent Bacterial Biofouling. Materials Research Society Symposia Proceedings, 2012, 1417, 1.	0.1	0
57	Lubricin as a Surface Treatment to Reduce Post-operative Biofouling and Infection. Materials Research Society Symposia Proceedings, 2012, 1486, 16.	0.1	0
58	Prevention of cartilage degeneration and gait asymmetry by lubricin tribosupplementation in the rat following anterior cruciate ligament transection. Arthritis and Rheumatism, 2012, 64, 1162-1171.	6.7	77
59	Cyclic loading increases friction and changes cartilage surface integrity in lubricinâ€mutant mouse knees. Arthritis and Rheumatism, 2012, 64, 465-473.	6.7	32
60	Effects of Supplemental Intra-articular Lubricin and Hyaluronic Acid on the Progression of Posttraumatic Arthritis in the Anterior Cruciate Ligament–Deficient Rat Knee. American Journal of Sports Medicine, 2011, 39, 164-172.	4.2	95
61	The mechanical properties of tail tendon fascicles from lubricin knockout, wild type and heterozygous mice. Journal of Structural Biology, 2011, 176, 41-45.	2.8	16
62	Tendon fascicle gliding in wild type, heterozygous, and lubricin knockout mice. Journal of Orthopaedic Research, 2011, 29, 384-389.	2.3	54
63	Preventing bacterial adhesion and cellular encroachment on intraocular lenses with lubricin. , 2011 , , .		0
64	Loss of cartilage structure, stiffness, and frictional properties in mice lacking PRG4. Arthritis and Rheumatism, 2010, 62, 1666-1674.	6.7	125
65	Prevention of cartilage degeneration and restoration of chondroprotection by lubricin tribosupplementation in the rat following anterior cruciate ligament transection. Arthritis and Rheumatism, 2010, 62, 2382-2391.	6.7	126
66	Effects of a Lubricin-Containing Compound on the Results of Flexor Tendon Repair in a Canine Model in Vivo. Journal of Bone and Joint Surgery - Series A, 2010, 92, 1453-1461.	3.0	74
67	Photonicsâ€based <i>In Vivo</i> total hemoglobin monitoring and clinical relevance. Journal of Biophotonics, 2009, 2, 277-287.	2.3	34
68	Lubricin surface modification improves tendon gliding after tendon repair in a canine model in vitro. Journal of Orthopaedic Research, 2009, 27, 257-263.	2.3	37
69	Comparison of two methods for calculating the frictional properties of articular cartilage using a simple pendulum and intact mouse knee joints. Journal of Biomechanics, 2009, 42, 1996-1999.	2.1	20
70	Friction force microscopy of lubricin and hyaluronic acid between hydrophobic and hydrophilic surfaces. Soft Matter, 2009, 5, 3438.	2.7	108
71	Coefficients of friction, lubricin, and cartilage damage in the anterior cruciate ligamentâ€deficient guinea pig knee. Journal of Orthopaedic Research, 2008, 26, 231-237.	2.3	99
72	Conformational Mechanics, Adsorption, and Normal Force Interactions of Lubricin and Hyaluronic Acid on Model Surfaces. Langmuir, 2008, 24, 1183-1193.	3.5	115

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73	Molecular Aspects of Boundary Lubrication by Human Lubricin:  Effect of Disulfide Bonds and Enzymatic Digestion. Langmuir, 2008, 24, 1495-1508.	3.5	120
74	Lubricin Surface Modification Improves Extrasynovial Tendon Gliding in a Canine Model in Vitro. Journal of Bone and Joint Surgery - Series A, 2008, 90, 129-135.	3.0	48
75	Point-of-Care Noninvasive Hemoglobin Determination Using Fiber Optic Reflectance Spectroscopy. Annual International Conference of the IEEE Engineering in Medicine and Biology Society, 2007, 2007, 2932-5.	0.5	3
76	Non-Invasive Determination of Hemoglobin by Digital Photography of Palpebral Conjunctiva. Journal of Emergency Medicine, 2007, 33, 105-111.	0.7	62
77	Ferroelectric Liquid Crystal Based Tunable Microspectrometer. Molecular Crystals and Liquid Crystals, 2007, 476, 61/[307]-76/[322].	0.9	3
78	Adsorption, Lubrication, and Wear of Lubricin on Model Surfaces: Polymer Brush-Like Behavior of a Glycoprotein. Biophysical Journal, 2007, 92, 1693-1708.	0.5	273
79	Reduced expression and proteolytic susceptibility of lubricin/superficial zone protein may explain early elevation in the coefficient of friction in the joints of rats with antigen-induced arthritis. Arthritis and Rheumatism, 2007, 56, $108-116$.	6.7	90
80	Association between friction and wear in diarthrodial joints lacking lubricin. Arthritis and Rheumatism, 2007, 56, 3662-3669.	6.7	215
81	Liquid Crystals: Frontiers in Biomedical Applications. , 2007, , .		46
82	Diffuse reflectance spectra of the palpebral conjunctiva and its utility as a noninvasive indicator of total hemoglobin. Journal of Biomedical Optics, 2006, 11, 014019.	2.6	30
83	Expression and mapping of lubricin in canine flexor tendon. Journal of Orthopaedic Research, 2006, 24, 1861-1868.	2.3	76
84	Monolithic microspectrometer using tunable ferroelectric liquid crystals. Applied Physics Letters, 2006, 89, 081105.	3.3	6
85	P-28: A Novel Medical Diagnostic Tool for Non-Invasively Measuring Hemoglobin Utilizing Switchable H-PDLC Display Technology. Digest of Technical Papers SID International Symposium, 2005, 36, 364.	0.3	3
86	The secreted glycoprotein lubricin protects cartilage surfaces and inhibits synovial cell overgrowth. Journal of Clinical Investigation, 2005, 115, 622-631.	8.2	461
87	Lubricating ability of aspirated synovial fluid from emergency department patients with knee joint synovitis. Journal of Rheumatology, 2004, 31, 557-64.	2.0	53
88	Lubricin reduces cartilage-cartilage integration. Biorheology, 2004, 41, 503-8.	0.4	49
89	Current thinking on viscosupplementation in osteoarthritis. Medicine and Health, Rhode Island, 2004, 87, 213-5.	0.1	0
90	CPR effectiveness in microgravity: comparison of three positions and a mechanical device. Aviation, Space, and Environmental Medicine, 2003, 74, 1183-9.	0.5	11

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91	Homology of lubricin and superficial zone protein (SZP): Products of megakaryocyte stimulating factor (MSF) gene expression by human synovial fibroblasts and articular chondrocytes localized to chromosome 1q25. Journal of Orthopaedic Research, 2001, 19, 677-687.	2.3	214
92	Boundary lubrication by lubricin is mediated by O-linked beta(1-3)Gal-GalNAc oligosaccharides. Glycoconjugate Journal, 2001, 18, 807-815.	2.7	209
93	Carboxyhemoglobin Toxicokinetics. Academic Emergency Medicine, 1999, 6, 766-768.	1.8	4
94	Comparison of the boundary-lubricating ability of bovine synovial fluid, lubricin, and Healon., 1998, 40, 414-418.		122
95	First Annual New England Regional SAEM Conferenceâ€"Scientific Presentation Titles. Academic Emergency Medicine, 1997, 4, 1162-1167.	1.8	0
96	Evaluation of Pre―and Posttreatment Pulse Oximetry in Acute Childhood Asthma. Academic Emergency Medicine, 1997, 4, 114-117.	1.8	28
97	Positive Airway Pressure Support and Myocardial Ischemia. Academic Emergency Medicine, 1996, 3, 729-729.	1.8	3
98	Continuous Noninvasive Determination of Pulsus Paradoxus: A Pilot Study. Academic Emergency Medicine, 1995, 2, 894-900.	1.8	17
99	070. Optimal Temperatures for Intravenous and Lavage Fluid in Hypothermia. Prehospital and Disaster Medicine, 1995, 10, S39-S40.	1.3	0
100	072. Comparison of Two-Person CPR with Bag-Valve-Mask Device (BVM) to One-Person CPR Using the Kendall Cardiovent® (KCV®) Device in an Intubated CPR Mannequin. Prehospital and Disaster Medicine, 1995, 10, S40-S40.	1.3	0
101	069. Use of Infrared Thermometry to Measure Lavage and Intravenous Fluid Temperature. Prehospital and Disaster Medicine, 1995, 10, S39-S39.	1.3	0
102	Characterization of a bovine synovial fluid lubricating factor III. The interaction with hyaluronic acid. Connective Tissue Research, 1992, 28, 245-255.	2.3	77
103	Characterization of a bovine synovial fluid lubricating factor. II. Comparison with purified ocular and salivary mucin. Connective Tissue Research, 1992, 28, 89-98.	2.3	25
104	Characterization of a bovine synovial fluid lubricating factor. I. Chemical, Surface activity and lubricating properties. Connective Tissue Research, 1992, 28, 71-88.	2.3	186
105	Video Library of Objective Verified Simulated Chest Compression Performances (CIRRUS Research) Tj ETQq1 1 C	.784314 r 1.2	gBT/Overloc -