

# Roman J Krawetz

## List of Publications by Year in descending order

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84  
papers

2,152  
citations

218677

26  
h-index

276875

41  
g-index

96  
all docs

96  
docs citations

96  
times ranked

2920  
citing authors

#	ARTICLE	IF	CITATIONS
1	ROCK inhibitor improves survival of cryopreserved serum/feeder-free single human embryonic stem cells. <i>Human Reproduction</i> , 2008, 24, 580-589.	0.9	149
2	Large-Scale Expansion of Pluripotent Human Embryonic Stem Cells in Stirred-Suspension Bioreactors. <i>Tissue Engineering - Part C: Methods</i> , 2010, 16, 573-582.	2.1	145
3	microRNA-181a-5p antisense oligonucleotides attenuate osteoarthritis in facet and knee joints. <i>Annals of the Rheumatic Diseases</i> , 2019, 78, 111-121.	0.9	83
4	Evolutionary Selection and Constraint on Human Knee Chondrocyte Regulation Impacts Osteoarthritis Risk. <i>Cell</i> , 2020, 181, 362-381.e28.	28.9	64
5	Human embryonic stem cells: caught between a ROCK inhibitor and a hard place. <i>BioEssays</i> , 2009, 31, 336-343.	2.5	58
6	Clonal analysis of synovial fluid stem cells to characterize and identify stable mesenchymal stromal cell/mesenchymal progenitor cell phenotypes in a porcine model: a cell source with enhanced commitment to the chondrogenic lineage. <i>Cytherapy</i> , 2014, 16, 776-788.	0.7	58
7	MicroRNA-34a-5p Promotes Joint Destruction During Osteoarthritis. <i>Arthritis and Rheumatology</i> , 2021, 73, 426-439.	5.6	56
8	Reduced Differentiation Efficiency of Murine Embryonic Stem Cells in Stirred Suspension Bioreactors. <i>Stem Cells and Development</i> , 2010, 19, 989-998.	2.1	55
9	Invariant natural killer T cells act as an extravascular cytotoxic barrier for joint-invading Lyme <i>Borrelia</i> . <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2014, 111, 13936-13941.	7.1	54
10	Monocyte chemotactic protein-1 inhibits chondrogenesis of synovial mesenchymal progenitor cells: An in vitro study. <i>Stem Cells</i> , 2013, 31, 2253-2265.	3.2	53
11	Shear stress influences the pluripotency of murine embryonic stem cells in stirred suspension bioreactors. <i>Journal of Tissue Engineering and Regenerative Medicine</i> , 2014, 8, 268-278.	2.7	53
12	Matrix metalloproteinase protein expression profiles cannot distinguish between normal and early osteoarthritic synovial fluid. <i>BMC Musculoskeletal Disorders</i> , 2012, 13, 126.	1.9	51
13	Serum and synovial fluid cytokine profiling in hip osteoarthritis: distinct from knee osteoarthritis and correlated with pain. <i>BMC Musculoskeletal Disorders</i> , 2018, 19, 39.	1.9	51
14	Proteoglycan 4: From Mere Lubricant to Regulator of Tissue Homeostasis and Inflammation. <i>BioEssays</i> , 2019, 41, e1800166.	2.5	49
15	Synovial Fluid Progenitors Expressing CD90+ from Normal but Not Osteoarthritic Joints Undergo Chondrogenic Differentiation without Micro-Mass Culture. <i>PLoS ONE</i> , 2012, 7, e43616.	2.5	49
16	Derivation of iPSCs in stirred suspension bioreactors. <i>Nature Methods</i> , 2012, 9, 465-466.	19.0	45
17	Wnt6 induces the specification and epithelialization of F9 embryonal carcinoma cells to primitive endoderm. <i>Cellular Signalling</i> , 2008, 20, 506-517.	3.6	44
18	Optimized serial expansion of human induced pluripotent stem cells using low-density inoculation to generate clinically relevant quantities in vertical-wheel bioreactors. <i>Stem Cells Translational Medicine</i> , 2020, 9, 1036-1052.	3.3	40

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19	Efficient suspension bioreactor expansion of murine embryonic stem cells on microcarriers in serum-free medium. <i>Biotechnology Progress</i> , 2011, 27, 811-823.	2.6	39
20	Large-scale production of murine embryonic stem cell-derived osteoblasts and chondrocytes on microcarriers in serum-free media. <i>Biomaterials</i> , 2011, 32, 6006-6016.	11.4	39
21	Intraarticular and Systemic Inflammatory Profiles May Identify Patients with Osteoarthritis. <i>Journal of Rheumatology</i> , 2013, 40, 1379-1387.	2.0	35
22	A computational method to differentiate normal individuals, osteoarthritis and rheumatoid arthritis patients using serum biomarkers. <i>Journal of the Royal Society Interface</i> , 2014, 11, 20140428.	3.4	35
23	The genomics of ecological flexibility, large brains, and long lives in capuchin monkeys revealed with fecalFACS. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2021, 118, .	7.1	34
24	Osmolarity regulates chondrogenic differentiation potential of synovial fluid derived mesenchymal progenitor cells. <i>Biochemical and Biophysical Research Communications</i> , 2012, 422, 455-461.	2.1	32
25	Enumeration and Localization of Mesenchymal Progenitor Cells and Macrophages in Synovium from Normal Individuals and Patients with Pre-Osteoarthritis or Clinically Diagnosed Osteoarthritis. <i>International Journal of Molecular Sciences</i> , 2017, 18, 774.	4.1	31
26	Embryonic stem cell therapy improves bone quality in a model of impaired fracture healing in the mouse; tracked temporally using in vivo micro-CT. <i>Bone</i> , 2014, 64, 263-272.	2.9	29
27	Returning to the stem state: Epigenetics of recapitulating pre-differentiation chromatin structure. <i>BioEssays</i> , 2010, 32, 791-799.	2.5	27
28	Collagen I Scaffolds Cross-Linked with Beta-Glycerol Phosphate Induce Osteogenic Differentiation of Embryonic Stem Cells <i>In Vitro</i> and Regulate Their Tumorigenic Potential <i>In Vivo</i> . <i>Tissue Engineering - Part A</i> , 2012, 18, 1014-1024.	3.1	26
29	Proteomics Analysis of Tears and Saliva From Sjogren's Syndrome Patients. <i>Frontiers in Pharmacology</i> , 2021, 12, 787193.	3.5	23
30	CCL2 But Not CCR2 Is Required for Spontaneous Articular Cartilage Regeneration Post-Injury. <i>Journal of Orthopaedic Research</i> , 2019, 37, 2561-2574.	2.3	22
31	Proteoglycan 4 (PRG4) expression and function in dry eye associated inflammation. <i>Experimental Eye Research</i> , 2021, 208, 108628.	2.6	22
32	p21 <sup>-/-</sup> mice exhibit enhanced bone regeneration after injury. <i>BMC Musculoskeletal Disorders</i> , 2017, 18, 435.	1.9	21
33	Understanding cartilage protection in OA and injury: a spectrum of possibilities. <i>BMC Musculoskeletal Disorders</i> , 2020, 21, 432.	1.9	21
34	Osteoblasts suppress high bone turnover caused by osteolytic breast cancer in-vitro. <i>Experimental Cell Research</i> , 2009, 315, 2333-2342.	2.6	20
35	Serum-free scaled up expansion and differentiation of murine embryonic stem cells to osteoblasts in suspension bioreactors. <i>Biotechnology and Bioengineering</i> , 2010, 106, 829-840.	3.3	20
36	Ran binding protein RanBP1 in zebrafish embryonic development. <i>Molecular Reproduction and Development</i> , 2001, 59, 235-248.	2.0	19

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37	Characterizing heterogeneity in the response of synovial mesenchymal progenitor cells to synovial macrophages in normal individuals and patients with osteoarthritis. <i>Journal of Inflammation</i> , 2016, 13, 12.	3.4	19
38	Gl $\pm$ 13 activation rescues moesin-depletion induced apoptosis in F9 teratocarcinoma cells. <i>Experimental Cell Research</i> , 2006, 312, 3224-3240.	2.6	17
39	Developing a Customized Perfusion Bioreactor Prototype with Controlled Positional Variability in Oxygen Partial Pressure for Bone and Cartilage Tissue Engineering. <i>Tissue Engineering - Part C: Methods</i> , 2017, 23, 286-297.	2.1	17
40	Post-Passage rock inhibition induces cytoskeletal aberrations and apoptosis in Human embryonic stem cells. <i>Stem Cell Research</i> , 2019, 41, 101641.	0.7	17
41	Derivation of human embryonic stem cell lines after blastocyst microsurgery. <i>Biochemistry and Cell Biology</i> , 2010, 88, 479-490.	2.0	16
42	Applying computation biology and "big data" to develop multiplex diagnostics for complex chronic diseases such as osteoarthritis. <i>Biomarkers</i> , 2015, 20, 533-539.	1.9	16
43	Evaluating endogenous repair of focal cartilage defects in C57BL/6 and MRL/MpJ mice using 9.4T magnetic resonance imaging: A pilot study. <i>Magnetic Resonance Imaging</i> , 2015, 33, 690-694.	1.8	16
44	Ion channel expression and function in normal and osteoarthritic human synovial fluid progenitor cells. <i>Channels</i> , 2016, 10, 148-157.	2.8	16
45	Absence of Proteoglycan 4 ( <i>Prg4</i> ) Leads to Increased Subchondral Bone Porosity Which Can Be Mitigated Through Intra-articular Injection of PRG4. <i>Journal of Orthopaedic Research</i> , 2019, 37, 2077-2088.	2.3	16
46	Production of Mesenchymal Progenitor Cell-Derived Extracellular Vesicles in Suspension Bioreactors for Use in Articular Cartilage Repair. <i>Stem Cells Translational Medicine</i> , 2022, 11, 73-87.	3.3	16
47	Inhibition of Rho Kinase Regulates Specification of Early Differentiation Events in P19 Embryonal Carcinoma Stem Cells. <i>PLoS ONE</i> , 2011, 6, e26484.	2.5	15
48	Allogeneic Bone Marrow Transplant from MRL/MpJ Super-Healer Mice Does Not Improve Articular Cartilage Repair in the C57Bl/6 Strain. <i>PLoS ONE</i> , 2015, 10, e0131661.	2.5	15
49	Increased levels of p21(CIP1/WAF1) correlate with decreased chondrogenic differentiation potential in synovial membrane progenitor cells.. <i>Mechanisms of Ageing and Development</i> , 2015, 149, 31-40.	4.6	15
50	Production of Adult Human Synovial Fluid-Derived Mesenchymal Stem Cells in Stirred-Suspension Culture. <i>Stem Cells International</i> , 2018, 2018, 1-16.	2.5	15
51	Effect of basic fibroblast growth factor in mouse embryonic stem cell culture and osteogenic differentiation. <i>Journal of Tissue Engineering and Regenerative Medicine</i> , 2013, 7, 371-382.	2.7	14
52	Cathepsin g Degrades Both Glycosylated and Unglycosylated Regions of Lubricin, a Synovial Mucin. <i>Scientific Reports</i> , 2020, 10, 4215.	3.3	14
53	Moesin signalling induces F9 teratocarcinoma cells to differentiate into primitive extraembryonic endoderm. <i>Cellular Signalling</i> , 2008, 20, 163-175.	3.6	13
54	Embryonic Stem Cells Incorporate into Newly Formed Bone and do Not Form Tumors in an Immunocompetent Mouse Fracture Model. <i>Cell Transplantation</i> , 2013, 22, 1453-1462.	2.5	12

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55	Multiple mesenchymal progenitor cell subtypes with distinct functional potential are present within the intimal layer of the hip synovium. <i>BMC Musculoskeletal Disorders</i> , 2019, 20, 125.	1.9	12
56	CCL22 is a biomarker of cartilage injury and plays a functional role in chondrocyte apoptosis. <i>Cytokine</i> , 2019, 115, 32-44.	3.2	12
57	Coordinate $\text{G}\beta 13$ and $\text{Wnt6}$ - $\beta$ -catenin signaling in F9 embryonal carcinoma cells is required for primitive endoderm differentiation. <i>Biochemistry and Cell Biology</i> , 2009, 87, 567-580.	2.0	11
58	Assessment of the efficacy of MRI for detection of changes in bone morphology in a mouse model of bone injury. <i>Journal of Magnetic Resonance Imaging</i> , 2013, 38, 231-237.	3.4	11
59	p21 <sup>+/+</sup> Mice Exhibit Spontaneous Articular Cartilage Regeneration Post-Injury. <i>Cartilage</i> , 2021, 13, 1608S-1617S.	2.7	11
60	Isolation and Characterization of an Adult Stem Cell Population from Human Epidural Fat. <i>Stem Cells International</i> , 2019, 2019, 1-12.	2.5	11
61	Would the real human embryonic stem cell please stand up?. <i>BioEssays</i> , 2013, 35, 632-638.	2.5	10
62	Synovial mesenchymal progenitor derived aggrecan regulates cartilage homeostasis and endogenous repair capacity. <i>Cell Death and Disease</i> , 2022, 13, 470.	6.3	10
63	The Translocon-Associated Protein beta (TRAPbeta) in zebrafish embryogenesis. I. Enhanced expression of transcripts in notochord and hatching gland precursors. <i>Molecular and Cellular Biochemistry</i> , 2000, 215, 93-101.	3.1	9
64	Reduction of pluripotent gene expression in murine embryonic stem cells exposed to mechanical loading or Cyclo RGD peptide. <i>BMC Cell Biology</i> , 2017, 18, 32.	3.0	9
65	17-DMAG regulates p21 expression to induce chondrogenesis <i>in vitro</i> and <i>in vivo</i> . <i>DMM Disease Models and Mechanisms</i> , 2018, 11, .	2.4	9
66	CCL22 induces pro-inflammatory changes in fibroblast-like synoviocytes. <i>IScience</i> , 2021, 24, 101943.	4.1	9
67	Excessive downhill training leads to early onset of knee osteoarthritis. <i>Osteoarthritis and Cartilage</i> , 2021, 29, 870-881.	1.3	8
68	Proteoglycan 4 (PRG4) treatment enhances wound closure and tissue regeneration. <i>Npj Regenerative Medicine</i> , 2022, 7, .	5.2	8
69	Decrease of core 2 O-glycans on synovial lubricin in osteoarthritis reduces galectin-3 mediated crosslinking. <i>Journal of Biological Chemistry</i> , 2020, 295, 16023-16036.	3.4	7
70	Differential distribution of the G protein $\beta 3$ subunit in the developing zebrafish nervous system. <i>International Journal of Developmental Neuroscience</i> , 2001, 19, 455-467.	1.6	6
71	Serum cartilage oligomeric matrix protein (COMP) expression in individuals who sustained a youth sport-related intra-articular knee injury 3-10 years previously and uninjured matched controls. <i>Osteoarthritis and Cartilage</i> , 2019, 27, 286-293.	1.3	6
72	Effect of mechanical strain on the pluripotency of murine embryonic stem cells seeded in a collagen scaffold. <i>Journal of Orthopaedic Research</i> , 2018, 36, 799-807.	2.3	5

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73	Biochemical Markers for the Early Identification of Osteoarthritis: Systematic Review and Meta-Analysis. <i>Molecular Diagnosis and Therapy</i> , 2018, 22, 671-682.	3.8	5
74	<i>Prx1</i> <sup>+</sup> and <i>Hic1</i> <sup>+</sup> Mesenchymal Progenitors Are Present Within the Epidural Fat and Dura Mater and Participate in Dural Injury Repair. <i>Stem Cells Translational Medicine</i> , 2022, 11, 200-212.	3.3	5
75	Suspension Bioreactor Expansion of Undifferentiated Human Embryonic Stem Cells. <i>Methods in Molecular Biology</i> , 2012, 873, 227-235.	0.9	4
76	Absence of p21(WAF1/CIP1/SDI1) protects against osteopenia and minimizes bone loss after ovariectomy in a mouse model. <i>PLoS ONE</i> , 2019, 14, e0215018.	2.5	4
77	Epidural fat mesenchymal stem cells: Important microenvironmental regulators in health, disease, and regeneration. <i>BioEssays</i> , 2021, 43, e2000215.	2.5	4
78	A non-immunological role for $\beta$ -interferon-inducible lysosomal thiol reductase (GILT) in osteoclastic bone resorption. <i>Science Advances</i> , 2021, 7, .	10.3	4
79	Resetting the clock on arthritis. <i>Arthritis Research and Therapy</i> , 2019, 21, 37.	3.5	3
80	Large-scale expansion of feeder-free mouse embryonic stem cells serially passaged in stirred suspension bioreactors at low inoculation densities directly from cryopreservation. <i>Biotechnology and Bioengineering</i> , 2020, 117, 1316-1328.	3.3	3
81	Proteoglycan 4 is present within the dura mater and produced by mesenchymal progenitor cells. <i>Cell and Tissue Research</i> , 2022, 389, 483-499.	2.9	3
82	Recapitulating bone development events in a customised bioreactor through interplay of oxygen tension, medium pH, and systematic differentiation approaches. <i>Journal of Tissue Engineering and Regenerative Medicine</i> , 2019, 13, 1672-1684.	2.7	1
83	A Na <sup>+</sup> /K <sup>+</sup> ATPase Pump Regulates Chondrocyte Differentiation and Bone Length Variation in Mice. <i>Frontiers in Cell and Developmental Biology</i> , 2021, 9, 708384.	3.7	1
84	The influence of maximal and submaximal cyclic concentric and eccentric exercise on chondrocyte death and synovial fluid proteins in the rabbit knee. <i>Clinical Biomechanics</i> , 2020, 78, 105095.	1.2	0