Leo Q Wan

List of Publications by Year
in descending order

60 papers	2,976 citations	218381 26 h-index	174990 52 g-index
68 all docs	68 docs citations	68 times ranked	4792 citing authors

#	Article	IF	Citations
1	Cell Chirality as a Novel Measure for Cytotoxicity. Advanced Biology, 2022, 6, e2101088.	1.4	4
2	A Micropatterning Assay for Measuring Cell Chirality. Journal of Visualized Experiments, 2022, , .	0.2	0
3	Hyperosmolar Ionic Solutions Modulate Inflammatory Phenotype and sGAG Loss in a Cartilage Explant Model. Cartilage, 2021, 13, 713S-721S.	1.4	6
4	Effects of Alzheimerâ€™s Disease-Related Proteins on the Chirality of Brain Endothelial Cells. Cellular and Molecular Bioengineering, 2021, 14, 231-240.	1.0	8
5	Recent Advances in Cellular and Molecular Bioengineering for Building and Translation of Biological Systems. Cellular and Molecular Bioengineering, 2021, 14, 293-308.	1.0	2
6	Cell chirality in cardiovascular development and disease. APL Bioengineering, 2020, 4, 031503.	3.3	14
7	Cell organelle-based analysis of cell chirality. Communicative and Integrative Biology, 2019, 12, 78-81.	0.6	15
8	Cardiomyocyte orientation modulated by the Numb family proteinsâ€"N-cadherin axis is essential for ventricular wall morphogenesis. Proceedings of the National Academy of Sciences of the United States of America, 2019, 116, 15560-15569.	3.3	22
9	Temporal effects of cytokine treatment on lubricant synthesis and matrix metalloproteinase activity of fibroblast-like synoviocytes. Journal of Tissue Engineering and Regenerative Medicine, 2019, 13, 87-98.	1.3	6
10	Identification of Chondrocyte Genes and Signaling Pathways in Response to Acute Joint Inflammation. Scientific Reports, 2019, 9, 93.	1.6	43
11	Cartilage Metabolism is Modulated by Synovial Fluid Through Metalloproteinase Activity. Annals of Biomedical Engineering, 2018, 46, 810-818.	1.3	8
12	Intrinsic cellular chirality regulates leftâ€"right symmetry breaking during cardiac looping. Proceedings of the National Academy of Sciences of the United States of America, 2018, 115, E11568-E11577.	3.3	54
13	Lineage-Specific Chiral Biases of Human Embryonic Stem Cells during Differentiation. Stem Cells International, 2018, 2018, 1-10.	1.2	9
14	Epithelial Cell Chirality Revealed by Three-Dimensional Spontaneous Rotation. Proceedings of the National Academy of Sciences of the United States of America, 2018, 115, 12188-12193.	3.3	52
15	Cell chirality regulates intercellular junctions and endothelial permeability. Science Advances, 2018, 4, eaat2111.	4.7	45
16	In Vitro Microscale Models for Embryogenesis. Advanced Biology, 2018, 2, 1700235.	3.0	6
17	Teratogen screening with human pluripotent stem cells. Integrative Biology (United Kingdom), 2018, 10, 491-501.	0.6	23
18	Intercellular junctions and endothelial permeability are regulated by cell chirality. FASEB Journal, 2018, 32, lb239.	0.2	0

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19	CDC42 is required for epicardial and pro-epicardial development by mediating FGF receptor trafficking to the plasma membrane. Development (Cambridge), 2017, 144, 1635-1647.	1.2	20
20	Zonal variation of MRI-measurable parameters classifies cartilage degradation. Journal of Biomechanics, 2017, 65, 176-184.	0.9	8
21	Multiaxial Polarity Determines Individual Cellular and Nuclear Chirality. Cellular and Molecular Bioengineering, 2017, 10, 63-74.	1.0	15
22	Cell chirality: emergence of asymmetry from cell culture. Philosophical Transactions of the Royal Society B: Biological Sciences, 2016, 371, 20150413.	1.8	46
23	Sequential gelation of tyramine-substituted hyaluronic acid hydrogels enhances mechanical integrity and cell viability. Medical and Biological Engineering and Computing, 2016, 54, 1893-1902.	1.6	15
24	Cellular and Nuclear Alignment Analysis for Determining Epithelial Cell Chirality. Annals of Biomedical Engineering, 2016, 44, 1475-1486.	1.3	35
25	Effects of Osmolarity on the Spontaneous Calcium Signaling of In Situ Juvenile and Adult Articular Chondrocytes. Annals of Biomedical Engineering, 2016, 44, 1138-1147.	1.3	21
26	Determining Tensionâ€"Compression Nonlinear Mechanical Properties of Articular Cartilage from Indentation Testing. Annals of Biomedical Engineering, 2016, 44, 1148-1158.	1.3	26
27	Astrocytes Increase ATP Exocytosis Mediated Calcium Signaling in Response to Microgroove Structures. Scientific Reports, 2015, 5, 7847.	1.6	45
28	Zinc Inhibits Hedgehog Autoprocessing. Journal of Biological Chemistry, 2015, 290, 11591-11600.	1.6	15
29	Inhibition of cellâ€"cell adhesion impairs directional epithelial migration on micropatterned surfaces. Integrative Biology (United Kingdom), 2015, 7, 580-590.	0.6	39
30	Magnetic Resonance Imaging of Healthy, Diseased, and Regenerated Cartilage. Current Tissue Engineering, 2015, 4, 111-121.	0.2	1
31	Large, stratified, and mechanically functional human cartilage grown in vitro by mesenchymal condensation. Proceedings of the National Academy of Sciences of the United States of America, 2014, 111, 6940-6945.	3.3	166
32	High-Throughput Cell Aggregate Culture for Stem Cell Chondrogenesis. Methods in Molecular Biology, 2014, 1202, 11-19.	0.4	6
33	Carbon Nanotube-Induced Loss of Multicellular Chirality on Micropatterned Substrate Is Mediated by Oxidative Stress. ACS Nano, 2014, 8, 2196-2205.	7.3	56
34	Patterning pluripotency in embryonic stem cells. Stem Cells, 2013, 31, 1806-1815.	1.4	15
35	Cell Organelle Positioning of Micropatterned Single C2C12 Mouse Myoblasts. , 2013, , .		0
36	Cell Elongation and Migration on Asymmetric Grooved Topography. , 2013, , .		0

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37	Micropatterning of cells reveals chiral morphogenesis. Stem Cell Research and Therapy, 2013, 4, 24.	2.4	28
38	Geometryâ€“Force Control of Stem Cell Fate. BioNanoScience, 2013, 3, 43-51.	1.5	23
39	A Hydrogel-Mineral Composite Scaffold for Osteochondral Interface Tissue Engineering. Tissue Engineering - Part A, 2012, 18, 533-545.	1.6	104
40	Channelled scaffolds for engineering myocardium with mechanical stimulation. Journal of Tissue Engineering and Regenerative Medicine, 2012, 6, 748-756.	1.3	43
41	Composite scaffold provides a cell delivery platform for cardiovascular repair. Proceedings of the National Academy of Sciences of the United States of America, 2011, 108, 7974-7979.	3.3	241
42	Micropatterned mammalian cells exhibit phenotype-specific left-right asymmetry. Proceedings of the National Academy of Sciences of the United States of America, 2011, 108, 12295-12300.	3.3	209
43	RIGOROUS MECHANICS AND ELEGANT MATHEMATICS ON THE FORMULATION OF CONSTITUTIVE LAWS FOR COMPLEX MATERIALS: AN EXAMPLE FROM BIOMECHANICS. , 2011, , 285-306.		0
44	Hybrid Gel Composed of Native Heart Matrix and Collagen Induces Cardiac Differentiation of Human Embryonic Stem Cells without Supplemental Growth Factors. Journal of Cardiovascular Translational Research, 2011, 4, 605-615.	1.1	161
45	Optimization of electrical stimulation parameters for cardiac tissue engineering. Journal of Tissue Engineering and Regenerative Medicine, 2011, 5, e115-e125.	1.3	131
46	Matrix Deposition Modulates the Viscoelastic Shear Properties of Hydrogel-Based Cartilage Grafts. Tissue Engineering - Part A, 2011, 17, 1111-1122.	1.6	34
47	Micropatterning chiral morphogenesis. Communicative and Integrative Biology, 2011, 4, 745-748.	0.6	20
48	Scaffold stiffness affects the contractile function of threeâ€dimensional engineered cardiac constructs. Biotechnology Progress, 2010, 26, 1382-1390.	1.3	62
49	A linearized formulation of triphasic mixture theory for articular cartilage, and its application to indentation analysis. Journal of Biomechanics, 2010, 43, 673-679.	0.9	35
50	Engineering anatomically shaped human bone grafts. Proceedings of the National Academy of Sciences of the United States of America, 2010, 107, 3299-3304.	3.3	367
51	A Triphasic Orthotropic Laminate Model for Cartilage Curling Behavior: Fixed Charge Density Versus Mechanical Properties Inhomogeneity. Journal of Biomechanical Engineering, 2010, 132, 024504.	0.6	13
52	Geometric control of human stem cell morphology and differentiation. Integrative Biology (United) Tj ETQq0 0 0 rgBT /Overlock 10 Tf 50	0.6	72
53	Geometry and force control of cell function. Journal of Cellular Biochemistry, 2009, 108, 1047-1058.	1.2	57
54	Percutaneous Cell Delivery into the Heart Using Hydrogels Polymerizing in Situ. Cell Transplantation, 2009, 18, 297-304.	1.2	142

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55	Chitosan-Collagen Based Channeled Scaffold for Cardiac Tissue Engineering. , 2009, , .		1
56	Subpixel Texture Correlation for Contractile Behaviors of Engineered Cardiac Tissue. , 2009, , .		0
57	THE ORIGIN OF PRE-STRESS IN BIOLOGICAL TISSUES â€" A MECHANO-ELECTROCHEMICAL MODEL: A TRIBUTE TO PROFESSOR Y.C. FUNG. , 2009, , 21-29.		0
58	Calcium Concentration Effects on the Mechanical and Biochemical Properties of Chondrocyte-Alginate Constructs. Cellular and Molecular Bioengineering, 2008, 1, 93-102.	1.0	94
59	Tissue Engineered Bone Grafts: Biological Requirements, Tissue Culture and Clinical Relevance. Current Stem Cell Research and Therapy, 2008, 3, 254-264.	0.6	280
60	Fixed electrical charges and mobile ions affect the measurable mechano-electrochemical properties of charged-hydrated biological tissues: the articular cartilage paradigm. Mcb Mechanics and Chemistry of Biosystems, 2004, 1, 81-99.	0.3	9