William Merryman

List of Publications by Year
in descending order

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80
papers

3,681
citations

147801
31
h-index

149698
56
g-index

84
all docs

84
docs citations

84
times ranked

4176
citing authors

#	Article	IF	Citations
1	Loss of talin in cardiac fibroblasts results in augmented ventricular cardiomyocyte hypertrophy in response to pressure overload. American Journal of Physiology - Heart and Circulatory Physiology, 2022, 322, H857-H866.	3.2	4
2	DCBL2 Deficiency Contributes to Aortic Stenosis via Increased BMP2 Signaling. JACC Basic To Translational Science, 2022, 7, 346-347.	4.1	0
3	Evaluation of early bilateral ovariectomy in mice as a model of left heart disease. American Journal of Physiology - Heart and Circulatory Physiology, 2022, 322, H1080-H1085.	3.2	4
4	Cadherin-11 and cardiac fibrosis: A common target for a common pathology. Cellular Signalling, 2021, 78, 109876.	3.6	13
5	5-HT2B Receptor in Cardiopulmonary Disease. Receptors, 2021, , 165-187.	0.2	0
6	Circulating prostate cancer cells have differential resistance to fluid shear stress-induced cell death. Journal of Cell Science, 2021, 134, .	2.0	18
7	Targeting 5-HT _{2B} Receptor Signaling Prevents Border Zone Expansion and Improves Microstructural Remodeling After Myocardial Infarction. Circulation, 2021, 143, 1317-1330.	1.6	36
8	Cell-programmed nutrient partitioning in the tumour microenvironment. Nature, 2021, 593, 282-288.	27.8	491
9	Unloading the Stenotic Path to Identifying Medical Therapy for Calcific Aortic Valve Disease. Circulation, 2021, 143, 1455-1457.	1.6	12
10	Side-specific valvular endothelial-interstitial cell mechano-communication via cadherin-11. Journal of Biomechanics, 2021, 119, 110253.	2.1	6
11	Impaired macrophage trafficking and increased helper T-cell recruitment with loss of cadherin-11 in atherosclerotic immune response. American Journal of Physiology - Heart and Circulatory Physiology, 2021, 321, H756-H769.	3.2	8
12	Evaluating Medical Therapy for Calcific Aortic Stenosis. Journal of the American College of Cardiology, 2021, 78, 2354-2376.	2.8	43
13	The CNP/NPR-B/cGMP Axis is a Therapeutic Target in Calcific AorticÂStenosis. JACC Basic To Translational Science, 2021, 6, 1003-1006.	4.1	1
14	Notch1 suppression by microRNA-34a: a new mechanism of calcific aortic valve disease. Cardiovascular Research, 2020, 116, 871-873.	3.8	6
15	Characterisation of aortic stenosis severity: a retrospective analysis of echocardiography reports in a clinical laboratory. Open Heart, 2020, 7, e001331.	2.3	3
16	Inhibition of focal adhesion kinase increases myofibril viscosity in cardiac myocytes. Cytoskeleton, 2020, 77, 342-350.	2.0	4
17	Cover Image, Volume 77, Issue 9. Cytoskeleton, 2020, 77, C1.	2.0	0
18	Cyclic Strain Promotes H19 Expression and Vascular Tube Formation in iPSC-Derived Endothelial Cells. Cellular and Molecular Bioengineering, 2020, 13, 369-377.	2.1	3

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19	Precise Tuning of Cortical Contractility Regulates Cell Shape during Cytokinesis. Cell Reports, 2020, 31, 107477.	6.4	39
20	Mouse Models of Heart Failure with Preserved or Reduced Ejection Fraction. American Journal of Pathology, 2020, 190, 1596-1608.	3.8	28
21	Macrophages Promote Aortic Valve Cell Calcification and Alter STAT3 Splicing. Arteriosclerosis, Thrombosis, and Vascular Biology, 2020, 40, e153-e165.	2.4	24
22	Wnt/Î²-Catenin in Acute Kidney Injury and Progression to Chronic Kidney Disease. Seminars in Nephrology, 2020, 40, 126-137.	1.6	34
23	Genetic ablation of serotonin receptor 2B improves aortic valve hemodynamics of Notch1 heterozygous mice in a high-cholesterol diet model. PLoS ONE, 2020, 15, e0238407.	2.5	11
24	Loss of flow responsive Tie1 results in Impairedâ€˙Aortic valve remodeling. Developmental Biology, 2019, 455, 73-84.	2.0	7
25	H19 is not hypomethylated or upregulated with age or sex in the aortic valves of mice. Physiological Reports, 2019, 7, e14244.	1.7	2
26	Adaptive immune cells in calcific aortic valve disease. American Journal of Physiology - Heart and Circulatory Physiology, 2019, 317, H141-H155.	3.2	47
27	Celecoxib Is Associated With DystrophicÂCalcification and Aortic ValveÂStenosis. JACC Basic To Translational Science, 2019, 4, 135-143.	4.1	16
28	Cadherin-11 blockade reduces inflammation-driven fibrotic remodeling and improves outcomes after myocardial infarction. JCI Insight, 2019, 4, .	5.0	33
29	Bone Marrowâ€"Derived Proangiogenic Cells Mediate Pulmonary Arteriole Stiffening via Serotonin 2B Receptor Dependent Mechanism. Circulation Research, 2018, 123, e51-e64.	4.5	17
30	Cadherin-11 as a regulator of valve myofibroblast mechanobiology. American Journal of Physiology - Heart and Circulatory Physiology, 2018, 315, H1614-H1626.	3.2	34
31	Loss of CENP-F Results in Dilated Cardiomyopathy with Severe Disruption of Cardiac Myocyte Architecture. Scientific Reports, 2018, 8, 7546.	3.3	12
32	Targeting Cadherin-11 Prevents Notch1-Mediated Calcific Aortic Valve Disease. Circulation, 2017, 135, 2448-2450.	1.6	37
33	A developmental approach to induced pluripotent stem cells-based tissue engineered heart valves. Future Cardiology, 2017, 13, 1-4.	1.2	5
34	I-Wire Heart-on-a-Chip II: Biomechanical analysis of contractile, three-dimensional cardiomyocyte tissue constructs. Acta Biomaterialia, 2017, 48, 79-87.	8.3	46
35	Disruption of lineage specification in adult pulmonary mesenchymal progenitor cells promotes microvascular dysfunction. Journal of Clinical Investigation, 2017, 127, 2262-2276.	8.2	35
36	Common pathways regulate Type III TGFÎ² receptor-dependent cell invasion in epicardial and endocardial cells. Cellular Signalling, 2016, 28, 688-698.	3.6	16

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37	Lnc-ing <i>NOTCH1</i> to Idiopathic Calcific Aortic Valve Disease. Circulation, 2016, 134, 1863-1865.	1.6	8
38	Quantitative Imaging Assessment of an Alternative Approach to Surgical Mitral Valve Leaflet Resection: An Acute Porcine Study. Annals of Biomedical Engineering, 2016, 44, 2240-2250.	2.5	1
39	Serotonin 2B Receptor Antagonism Prevents Heritable Pulmonary Arterial Hypertension. PLoS ONE, 2016, 11, e0148657.	2.5	43
40	Notch1 Mutation Leads to Valvular Calcification Through Enhanced Myofibroblast Mechanotransduction. Arteriosclerosis, Thrombosis, and Vascular Biology, 2015, 35, 1597-1605.	2.4	49
41	Microvessel Mechanobiology in Pulmonary Arterial Hypertension. Hypertension, 2015, 65, 483-489.	2.7	25
42	Biophysical Analysis of Dystrophic and Osteogenic Models of Valvular Calcification. Journal of Biomechanical Engineering, 2015, 137, 020903.	1.3	16
43	Mechanobiology of myofibroblast adhesion in fibrotic cardiac disease. Journal of Cell Science, 2015, 128, 1865-1875.	2.0	108
44	Matrigel Mattress. Circulation Research, 2015, 117, 995-1000.	4.5	148
45	In vitro models of aortic valve calcification: solidifying a system. Cardiovascular Pathology, 2015, 24, 1-10.	1.6	53
46	Identification of a common Wnt-associated genetic signature across multiple cell types in pulmonary arterial hypertension. American Journal of Physiology - Cell Physiology, 2014, 307, C415-C430.	4.6	64
47	In vitro assessment of a combined radiofrequency ablation and cryo-anchoring catheter for treatment of mitral valve prolapse. Journal of Biomechanics, 2014, 47, 973-980.	2.1	4
48	Network Modeling Approach to Predict Myofibroblast Differentiation. Cellular and Molecular Bioengineering, 2014, 7, 446-459.	2.1	13
49	Myocardial contraction and hyaluronic acid mechanotransduction inÂepithelial-to-mesenchymal transformation of endocardial cells. Biomaterials, 2014, 35, 2809-2815.	11.4	18
50	Potential drug targets for calcific aortic valve disease. Nature Reviews Cardiology, 2014, 11, 218-231.	13.7	123
51	Calcific nodule morphogenesis by heart valve interstitial cells is strain dependent. Biomechanics and Modeling in Mechanobiology, 2013, 12, 5-17.	2.8	85
52	Mechanisms of Calcification in Aortic Valve Disease: Role of Mechanokinetics and Mechanodynamics. Current Cardiology Reports, 2013, 15, 355.	2.9	44
53	Cadherin-11 Regulates Cellâ€"Cell Tension Necessary for Calcific Nodule Formation by Valvular Myofibroblasts. Arteriosclerosis, Thrombosis, and Vascular Biology, 2013, 33, 114-120.	2.4	87
54	The once and future state of percutaneous mitral valve repair. Future Cardiology, 2012, 8, 779-793.	1.2	5

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55	Development of a Simultaneous Cryo-Anchoring and Radiofrequency Ablation Catheter for Percutaneous Treatment of Mitral Valve Prolapse. Annals of Biomedical Engineering, 2012, 40, 1971-1981.	2.5	18
56	5-HT2B antagonism arrests non-canonical TGF-Î²1-induced valvular myofibroblast differentiation. Journal of Molecular and Cellular Cardiology, 2012, 53, 707-714.	1.9	92
57	Intracellular Ca2+ accumulation is strain-dependent and correlates with apoptosis in aortic valve fibroblasts. Journal of Biomechanics, 2012, 45, 888-894.	2.1	36
58	The Intrinsic Fatigue Mechanism of the Porcine Aortic Valve Extracellular Matrix. Cardiovascular Engineering and Technology, 2012, 3, 62-72.	1.6	1
59	A novel technique for quantifying mouse heart valve leaflet stiffness with atomic force microscopy. Journal of Heart Valve Disease, 2012, 21, 513-20.	0.5	34
60	Sensing and Modulation of Invadopodia across a Wide Range of Rigidities. Biophysical Journal, 2011, 100, 573-582.	0.5	108
61	The Role of SRC in Strain- and Ligand- Dependent Phenotypic Modulation of Mouse Embryonic Fibroblasts. , 2011, , .		1
62	Serotonin receptors and heart valve diseaseâ€”It was meant 2B. , 2011, 132, 146-157.		175
63	EMT-Inducing Biomaterials for Heart Valve Engineering: Taking Cues from Developmental Biology. Journal of Cardiovascular Translational Research, 2011, 4, 658-671.	2.4	60
64	Antagonism of the 5â€HT2B receptor prevents TGFâ€beta1 effects in aortic valve fibroblasts. FASEB Journal, 2011, 25, 177.5.	0.5	2
65	Radiofrequency Ablation Directionally Alters Geometry and Biomechanical Compliance of Mitral Valve Leaflets: Refinement of a Novel Percutaneous Treatment Strategy. Cardiovascular Engineering and Technology, 2010, 1, 194-201.	1.6	15
66	Mechano-potential etiologies of aortic valve disease. Journal of Biomechanics, 2010, 43, 87-92.	2.1	52
67	Viscoelastic Properties of the Aortic Valve Interstitial Cell. Journal of Biomechanical Engineering, 2009, 131, 041005.	1.3	32
68	On the biomechanics of heart valve function. Journal of Biomechanics, 2009, 42, 1804-1824.	2.1	306
69	Development of a Tissue Engineered Heart Valve for Pediatrics: A Case Study in Bioengineering Ethics. Science and Engineering Ethics, 2008, 14, 93-101.	2.9	13
70	Tissue-to-cellular level deformation coupling in cell micro-integrated elastomeric scaffolds. Biomaterials, 2008, 29, 3228-3236.	11.4	74
71	Insights Into (the Interstitium of) Degenerative Aortic Valve Disease. Journal of the American College of Cardiology, 2008, 51, 1415.	2.8	7
72	What modulates the aortic valve interstitial cell phenotype?. Future Cardiology, 2008, 4, 247-252.	1.2	2

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73	Differences in Tissue-Remodeling Potential of Aortic and Pulmonary Heart Valve Interstitial Cells. Tissue Engineering, 2007, 13, 2281-2289.	4.6	67
74	Synergistic effects of cyclic tension and transforming growth factor-Î²1 on the aortic valve myofibroblast. Cardiovascular Pathology, 2007, 16, 268-276.	1.6	152
75	Cellular Deformations in Microintegrated Electrospun Poly (Ester Urethane) Urea Scaffolds Under Biaxial Stretch. , 2007, , .		0
76	Aortic Valve Interstitial Cell Viscoelasticity. , 2007, , .		2
77	In-Vivo Dynamic Deformation of the Mitral Valve Anterior Leaflet. Annals of Thoracic Surgery, 2006, 82, 1369-1377.	1.3	122
78	The effects of cellular contraction on aortic valve leaflet flexural stiffness. Journal of Biomechanics, 2006, 39, 88-96.	2.1	110
79	Defining biomechanical endpoints for tissue engineered heart valve leaflets from native leaflet properties. Progress in Pediatric Cardiology, 2006, 21, 153-160.	0.4	26
80	Correlation between heart valve interstitial cell stiffness and transvalvular pressure: implications for collagen biosynthesis. American Journal of Physiology - Heart and Circulatory Physiology, 2006, 290, H224-H231.	3.2	183