William Whyte

List of Publications by Year in descending order

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42 papers	3,883 citations	430874 18 h-index	302126 39 g-index
44 all docs	44 docs citations	44 times ranked	5023 citing authors

#	Article	IF	Citations
1	Tough adhesives for diverse wet surfaces. Science, 2017, 357, 378-381.	12.6	1,068
2	Dry double-sided tape for adhesion of wet tissues and devices. Nature, 2019, 575, 169-174.	27.8	798
3	Electrical bioadhesive interface for bioelectronics. Nature Materials, 2021, 20, 229-236.	27.5	361
4	Soft robotic sleeve supports heart function. Science Translational Medicine, 2017, 9, .	12.4	280
5	A Bioinspired Soft Actuated Material. Advanced Materials, 2014, 26, 1200-1206.	21.0	210
6	Drug and cell delivery for cardiac regeneration. Advanced Drug Delivery Reviews, 2015, 84, 85-106.	13.7	170
7	Rapid and coagulation-independent haemostatic sealing by a paste inspired by barnacle glue. Nature Biomedical Engineering, 2021, 5, 1131-1142.	22.5	146
8	Biologic-free mechanically induced muscle regeneration. Proceedings of the National Academy of Sciences of the United States of America, 2016, 113, 1534-1539.	7.1	142
9	Comparison of biomaterial delivery vehicles for improving acute retention of stem cells in the infarcted heart. Biomaterials, 2014, 35, 6850-6858.	11.4	140
10	Sustained release of targeted cardiac therapy with a replenishable implanted epicardial reservoir. Nature Biomedical Engineering, 2018, 2, 416-428.	22.5	70
11	Biomaterialâ€Enhanced Cell and Drug Delivery: Lessons Learned in the Cardiac Field and Future Perspectives. Advanced Materials, 2016, 28, 5648-5661.	21.0	63
12	An Implantable Extracardiac Soft Robotic Device for the Failing Heart: Mechanical Coupling and Synchronization. Soft Robotics, 2017, 4, 241-250.	8.0	57
13	An actuatable soft reservoir modulates host foreign body response. Science Robotics, 2019, 4, .	17.6	49
14	A light-reflecting balloon catheter for atraumatic tissue defect repair. Science Translational Medicine, 2015, 7, 306ra149.	12.4	34
15	Towards Alternative Approaches for Coupling of a Soft Robotic Sleeve to the Heart. Annals of Biomedical Engineering, 2018, 46, 1534-1547.	2.5	31
16	An organosynthetic dynamic heart model with enhanced biomimicry guided by cardiac diffusion tensor imaging. Science Robotics, 2020, 5, .	17.6	30
17	An Intracardiac Soft Robotic Device for Augmentation of Blood Ejection from the Failing Right Ventricle. Annals of Biomedical Engineering, 2017, 45, 2222-2233.	2.5	28
18	Design Considerations for Macroencapsulation Devices for Stem Cell Derived Islets for the Treatment of Type 1 Diabetes. Advanced Science, 2021, 8, e2100820.	11.2	24

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19	Device-Based Solutions to Improve Cardiac Physiology and Hemodynamics in HeartÂFailure With Preserved EjectionÂFraction. JACC Basic To Translational Science, 2021, 6, 772-795.	4.1	24
20	Minimally invasive electroceutical catheter for endoluminal defect sealing. Science Advances, 2021, 7, .	10.3	20
21	The use of soft robotics in cardiovascular therapy. Expert Review of Cardiovascular Therapy, 2017, 15, 767-774.	1.5	17
22	Implantable Therapeutic Reservoir Systems for Diverse Clinical Applications in Large Animal Models. Advanced Healthcare Materials, 2020, 9, e2000305.	7.6	13
23	Optimizing Epicardial Restraint and Reinforcement Following Myocardial Infarction: Moving Towards Localized, Biomimetic, and Multitherapeutic Options. Biomimetics, 2019, 4, 7.	3.3	12
24	Objectâ€Oriented Lumpedâ€Parameter Modeling of the Cardiovascular System for Physiological and Pathophysiological Conditions. Advanced Theory and Simulations, 2021, 4, 2000216.	2.8	11
25	A Vacuum-Powered Artificial Muscle Designed for Infant Rehabilitation. Micromachines, 2021, 12, 971.	2.9	11
26	Direct Cardiac Compression Devices to Augment Heart Biomechanics and Function. Annual Review of Biomedical Engineering, 2022, 24, 137-156.	12.3	9
27	A Modular Geometrical Framework for Modelling the Force-Contraction Profile of Vacuum-Powered Soft Actuators. Frontiers in Robotics and AI, 2021, 8, 606938.	3.2	8
28	A comparison of two quasiâ€static computational models for assessment of intraâ€myocardial injection as a therapeutic strategy for heart failure. International Journal for Numerical Methods in Biomedical Engineering, 2019, 35, e3213.	2.1	7
29	In silico design of additively manufacturable composite synthetic vascular conduits and grafts with tuneable compliance. Biomaterials Science, 2021, 9, 4343-4355.	5.4	7
30	Lumped-Parameter and Finite Element Modeling of Heart Failure with Preserved Ejection Fraction. Journal of Visualized Experiments, 2021, , .	0.3	6
31	A Multi-Domain Simulation Study of a Pulsatile-Flow Pump Device for Heart Failure With Preserved Ejection Fraction. Frontiers in Physiology, 2022, 13, 815787.	2.8	6
32	Multiscale Experimental and Computational Modeling Approaches to Characterize Therapy Delivery to the Heart from an Implantable Epicardial Biomaterial Reservoir. Advanced Healthcare Materials, 2019, 8, 1900228.	7.6	5
33	Characterization of Exercise-Induced Myocardium Growth Using Finite Element Modeling and Bayesian Optimization. Frontiers in Physiology, 2021, 12, 694940.	2.8	3
34	Decellularization Following Fixation of Explanted Aortic Valves as a Strategy for Preserving Native Mechanical Properties and Function. Frontiers in Bioengineering and Biotechnology, 2021, 9, 803183.	4.1	3
35	Precurved, Fiber-Reinforced Actuators Enable Pneumatically Efficient Replication of Complex Biological Motions. Soft Robotics, 2022, 9, 293-308.	8.0	2
36	A protein sandwich enables real-time in vivo biomarker measurement. Science Translational Medicine, 2021, 13, .	12.4	1

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37	Bionic Organs and Tissues. IEEE Transactions on Medical Robotics and Bionics, 2021, 3, 295-296.	3.2	1
38	Shedding light on heart failure. Science Translational Medicine, 2020, 12, .	12.4	1
39	Multiscale Computational Modeling: Multiscale Experimental and Computational Modeling Approaches to Characterize Therapy Delivery to the Heart from an Implantable Epicardial Biomaterial Reservoir (Adv. Healthcare Mater. 16/2019). Advanced Healthcare Materials, 2019, 8, 1970068.	7.6	0
40	Catheters gain arrays of sensors and actuators. Nature Biomedical Engineering, 2020, 4, 939-940.	22.5	0
41	Minimally Invasive Delivery of Tissue Engineered Heart Valves to the Pulmonary Annulus. JACC Basic To Translational Science, 2020, 5, 829-830.	4.1	0
42	Encapsulating a leukemia vaccine. Science Translational Medicine, 2020, 12, .	12.4	0