Sourav Patnaik

List of Publications by Year in descending order

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44 papers	693 citations	840119 11 h-index	580395 25 g-index
45 all docs	45 docs citations	45 times ranked	1100 citing authors

#	Article	IF	Citations
1	Experimental aortic aneurysm severity and growth depend on topical elastase concentration and lysyl oxidase inhibition. Scientific Reports, 2022, 12, 99.	1.6	13
2	Characterization of Active Electrode Yield for Intracortical Arrays: Awake versus Anesthesia. Micromachines, 2022, 13, 480.	1.4	6
3	Animal Model Dependent Response to Pentagalloyl Glucose in Murine Abdominal Aortic Injury. Journal of Clinical Medicine, 2021, 10, 219.	1.0	6
4	Ex Vivo Regional Mechanical Characterization of Porcine Pulmonary Arteries. Experimental Mechanics, 2021, 61, 285-303.	1.1	5
5	Impacts of biomedical hashtag-based Twitter campaign: #DHPSP utilization for promotion of open innovation in digital health, patient safety, and personalized medicine. Current Research in Biotechnology, 2021, 3, 146-153.	1.9	15
6	Cerebral aneurysm rupture status classification using statistical and machine learning methods. Proceedings of the Institution of Mechanical Engineers, Part H: Journal of Engineering in Medicine, 2021, 235, 655-662.	1.0	10
7	Biomechanical properties of acellular scar ECM during the acute to chronic stages of myocardial infarction. Journal of the Mechanical Behavior of Biomedical Materials, 2021, 116, 104342.	1.5	10
8	Morphological Analysis of the Right Ventricular Endocardial Wall in Pulmonary Hypertension. Journal of Biomechanical Engineering, 2021, 143, .	0.6	0
9	Pentagalloyl Glucose-Laden Poly(lactide-co-glycolide) Nanoparticles for the Biomechanical Extracellular Matrix Stabilization of an In Vitro Abdominal Aortic Aneurysm Model. ACS Applied Materials & Interfaces, 2021, 13, 25771-25782.	4.0	5
10	Influence of Implantation Depth on the Performance of Intracortical Probe Recording Sites. Micromachines, 2021, 12, 1158.	1.4	9
11	A Predictive Analysis of Wall Stress in Abdominal Aortic Aneurysms Using a Neural Network Model. Journal of Biomechanical Engineering, 2021, 143, .	0.6	8
12	Patient-Specific Computational Analysis of Hemodynamics in Adult Pulmonary Hypertension. Annals of Biomedical Engineering, 2021, 49, 3465-3480.	1.3	4
13	A canonical correlation analysis of the relationship between clinical attributes and patient-specific hemodynamic indices in adult pulmonary hypertension. Medical Engineering and Physics, 2020, 77, 1-9.	0.8	4
14	A Comparative Study of Biomechanical and Geometrical Attributes of Abdominal Aortic Aneurysms in the Asian and Caucasian Populations. Journal of Biomechanical Engineering, 2020, 142, .	0.6	2
15	Biomechanical Restoration Potential of Pentagalloyl Glucose after Arterial Extracellular Matrix Degeneration. Bioengineering, 2019, 6, 58.	1.6	13
16	Mechanical Response of Porcine Liver Tissue under High Strain Rate Compression. Bioengineering, 2019, 6, 49.	1.6	9
17	Pentagalloyl Glucose and Its Functional Role in Vascular Health: Biomechanics and Drug-Delivery Characteristics. Annals of Biomedical Engineering, 2019, 47, 39-59.	1.3	37
18	Quantitative Analysis of Tissue Damage Evolution in Porcine Liver With Interrupted Mechanical Testing Under Tension, Compression, and Shear. Journal of Biomechanical Engineering, 2018, 140, .	0.6	10

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19	Cardiac findings in Quarter Horses with heritable equine regional dermal asthenia. Journal of the American Veterinary Medical Association, 2017, 250, 538-547.	0.2	2
20	Etiology, pathophysiology and biomarkers of interstitial cystitis/painful bladder syndrome. Archives of Gynecology and Obstetrics, 2017, 295, 1341-1359.	0.8	170
21	Biomechanical Testing and Histologic Examination of Intradermal Skin Closure in Dogs Using Barbed Suture Device and Nonâ€Barbed Monofilament Suture. Veterinary Surgery, 2017, 46, 59-66.	0.5	11
22	Abstract 485: On the Relative Effectiveness of Machine Learning and Statistical Methods in Predicting Abdominal Aortic Aneurysm Rupture in the Asian Population. Arteriosclerosis, Thrombosis, and Vascular Biology, 2017, 37, .	1.1	1
23	Pelvic Floor Biomechanics From Animal Models. , 2016, , 131-148.		1
24	Characterisation of the mechanical properties of infarcted myocardium in the rat under biaxial tension and uniaxial compression. Journal of the Mechanical Behavior of Biomedical Materials, 2016, 63, 252-264.	1.5	33
25	Infarcted rat myocardium: Data from biaxial tensile and uniaxial compressive testing and analysis of collagen fibre orientation. Data in Brief, 2016, 8, 1338-1343.	0.5	3
26	A Coupled Experiment-finite Element Modeling Methodology for Assessing High Strain Rate Mechanical Response of Soft Biomaterials. Journal of Visualized Experiments, 2015, , e51545.	0.2	2
27	Establishing Early Functional Perfusion and Structure in Tissue Engineered Cardiac Constructs. Critical Reviews in Biomedical Engineering, 2015, 43, 455-471.	0.5	6
28	Experimental Evidence of Mechanical Isotropy in Porcine Lung Parenchyma. Materials, 2015, 8, 2454-2466.	1.3	11
29	Functional Heart Valve Scaffolds Obtained by Complete Decellularization of Porcine Aortic Roots in a Novel Differential Pressure Gradient Perfusion System. Tissue Engineering - Part C: Methods, 2015, 21, 1284-1296.	1.1	43
30	Mayerâ€“Rokitanskyâ€“KÃ¼sterâ€“Hauser (MRKH) syndrome: A historical perspective. Gene, 2015, 555, 33-40.	1.0	37
31	On the Bending Properties of Porcine Mitral, Tricuspid, Aortic, and Pulmonary Valve Leaflets. Journal of Long-Term Effects of Medical Implants, 2015, 25, 41-53.	0.2	15
32	Abstract 368: Biomechanical Properties of Scar ECM: from the Acute to Chronic Stages of Myocardial Infarction. Circulation Research, 2015, 117, .	2.0	0
33	Morphologic Evaluation of Post-implanted Monofilament Polypropylene Mesh Utilizing a Novel Technique with Scanning Electron Microscopy Quantification. Surgical Technology International, 2015, 26, 169-73.	0.1	0
34	3D Printingâ€“Assisted Rapid Prototyping and Optimization: Development of a Novel Small Intestinal Cannula for Equine Research. 3D Printing and Additive Manufacturing, 2014, 1, 104-106.	1.4	4
35	Cardiac differentiation of cardiosphere-derived cells in scaffolds mimicking morphology of the cardiac extracellular matrix. Acta Biomaterialia, 2014, 10, 3449-3462.	4.1	45
36	Chapter 3: Decellularized Scaffolds: Concepts, Methodologies, and Applications in Cardiac Tissue Engineering and Whole-Organ Regeneration. Frontiers in Nanobiomedical Research, 2014, , 77-124.	0.1	8

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37	Regenerative Potential of Decellularized Porcine Nucleus Pulposus Hydrogel Scaffolds: Stem Cell Differentiation, Matrix Remodeling, and Biocompatibility Studies. Tissue Engineering - Part A, 2013, 19, 952-966.	1.6	65
38	Mitigation of diabetes-related complications in implanted collagen and elastin scaffolds using matrix-binding polyphenol. Biomaterials, 2013, 34, 685-695.	5.7	46
39	Influence Of Microgravity On Left Ventricular Sphericity: A Finite Element Model Of The Heart. , 2012, , .		0
40	Biomechanical Characterization of Sheep Vaginal Wall Tissue: A Potential Application in Human Pelvic Floor Disorders. , 2012, , .		0
41	Stress State and Strain Rate Dependence of the Human Placenta. Annals of Biomedical Engineering, 2012, 40, 2255-2265.	1.3	14
42	A comparative biomechanical analysis of term fetal membranes in human and domestic species. American Journal of Obstetrics and Gynecology, 2011, 204, 365.e25-365.e36.	0.7	10
43	Development of a Finite Element Model for Porcine Scalp. , 2011, , .		0
44	Stress State Dependence of Human Placenta Mechanical Behavior. , 2011, , .		0